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LLNL RCRA PART B INCINERATOR HEALTH RISK ASSESSMENT

Phase I - Existing Hazardous Waste Management Incinerator

Appendices

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APPENDIX A
Toxicological Summaries

TOXICOLOGICAL SUMMARIES

The following brief toxicological summaries are composed from the references where the doses and cancer potency values were found or from which information used to derive the doses was found. The majority of the reference doses were taken from or derived from data in the Health Effects Assessment Tables (U.S. EPA, 1989) or the Threshold Limit Values and Biological Exposure Indices (ACGIH, 1986a).

Chemicals that are carcinogenic by one route of exposure and that had no data pertaining to the other route of exposure were assumed to be carcinogenic by both exposure pathways with equal potency. We are assuming cancer to be a most sensitive end point; therefore, if a formal reference dose (RfD) is not established for an exposure pathway where a chemical is carcinogenic, an informal RfD will not be established. The California Department of Health Services (DHS) cancer potency values for carcinogens will be included in the cancer potency summaries in addition to U.S. Environmental Protection Agency (EPA) values.

TOXICOLOGICAL SUMMARIES FOR CANCER POTENCY FACTORS

BENZENE - Group A carcinogen, EPA (U.S. EPA, 1989)

Inhalation CPF - 2.90×10^{-2}

The inhalation cancer potency factors (CPF) is based on human toxicity data following occupational exposure to airborne benzene. The observed toxic effect was leukemia.

Ingestion CPF - 2.90×10^{-2}

The ingestion CPF is strictly a route-to-route extrapolation from human occupational exposure to airborne benzene to ingestion of benzene.

California Air Pollution Control Officers Association (CAPCOA)/DHS (CARB and DHS, 1984. Report to the Scientific Review Panel on Benzene. November 27, 1984)

Inhalation CPF - 1.70×10^{-1}

This potency estimate was developed from occupational studies by the DHS Carcinogenic Assessment Group (CAG). [An industry-wide mortality study of workers exposed to benzene, Environmental Health Associates (1983)].

Ingestion CPF - 1.70×10^{-1}

This ingestion CPF is based on the conversion of the DHS inhalation volume for benzene.

BERYLLIUM - Group B2 carcinogen

Inhalation CPF - 8.40×10^0

The inhalation CPF is based on human toxicity data resulting from occupational inhalation of beryllium. The affected organ was the lung (U.S. EPA, 1989).

Ingestion CPF - 8.4×10^0

A lifetime drinking water [5 parts per million (ppm) beryllium] study conducted with rats proved inconclusive with respect to total tumors. No oral CPF was established by the EPA. CAPCOA's CPF is based on the conversion of the inhalation CPF adopted by the DHS from EPA, 1986 health assessment document for beryllium.

BIS(2-ETHYLHEXYL)PHTHALATE - Group B2 carcinogen, (U.S. EPA, 1989)

Inhalation CPF - 1.4×10^{-2}

No inhalation CPF has been determined. The oral CPF has been adopted from the oral pathway CPF as recognized by the EPA.

Ingestion CPF - 1.4×10^{-2}

Ingestion CPF is based on a 103-week dietary study conducted in rats; the liver was the affected organ.

BROMODICHLOROMETHANE - Group B2 carcinogen

Inhalation CPF - 1.3×10^{-1}

A formal inhalation CPF has not been recommended at this time by EPA or DHS. This value was adopted from the ingestion pathway CPF as recognized by EPA.

Ingestion CPF - 1.3×10^{-1}

The ingestion CPF is based on a 102-week gavage study performed on mice; the liver was the affected organ (U.S. EPA, 1989).

CADMIUM - Group B1 carcinogen, EPA (U.S. EPA, 1989)

Inhalation CPF - 6.10×10^0

The EPA inhalation CPF is based on toxicity data obtained from human occupational exposure to airborne cadmium. The target site was the respiratory tract.

Ingestion CPF - None

EPA reports that inadequate evidence for carcinogenicity via ingestion exists for this substance.

CAPCOA/DHS (CARB and DHS, 1986, Staff report: Public Hearing to Consider the Adoption of a Regulatory Amendment Identifying Cadmium as a Toxic Air Contaminant).

Inhalation CPF - 4.0×10^{-1} (Value from Table)

As calculated from the unit risk value for cadmium based on lung tumor data in rats exposed to cadmium chloride (pg. 104, CARB and DHS, 1986) of 1.81×10^{-1} , the inhalation CPF is 6.03×10^2 ($\text{CPF} = 0.181 \times 60,000/18$). This value compares poorly with the value currently in the table.

Ingestion CPF - 4.0×10^{-1}

This ingestion CPF was obtained by conversion of the DHS inhalation value.

CARBON TETRACHLORIDE - Group B2 carcinogen, EPA (U.S. EPA, 1989)

Inhalation CPF - 1.3×10^{-1} (as administered dose) 5.2×10^{-2} (as absorbed dose)

The EPA inhalation CPF is based on several gavage studies conducted in several species and producing injury to the liver. This CPF is actually a route-to-route extrapolation from ingestion data.

Ingestion CPF - 1.30×10^{-1}

The EPA ingestion CPF is based on the results of several gavage studies performed on several species; the target organ was the liver.

CAPCOA/CARB 1987, Public Hearing to Consider the Adoption of a Regulatory Amendment Identifying Carbon Tetrachloride as a Toxic Air Contaminant

Inhalation CPF - 1.3×10^{-1}

The inhalation CPF is derived by a route-to-route extrapolation from the ingestion CPF.

Oral CPF - 1.3×10^{-1}

The oral CPF is based on a combination of three oral studies. The studies were performed on mice, rats, and hamsters. The studies ranged from 31 weeks to 110 weeks in duration; the observed toxic effects were liver tumors.

CHLOROFORM - Group B2 carcinogen, (U.S. EPA, 1989)

Inhalation CPF - $8.1 \times 10^{-2} \text{ (mg/kg-day)}^{-1}$

The inhalation CPF is based on a study using mice. The duration of the study and the route of administration were not specified; the observed toxic effects were liver tumors.

Ingestion CPF - $6.1 \times 10^{-3} \text{ (mg/kg-day)}^{-1}$

The ingestion CPF is based on a 104-week drinking water study performed on rats; the observed toxic effects were kidney tumors.

CHROMIUM VI - Group A carcinogen, EPA (U.S. EPA, 1989).

Inhalation CPF - 4.10×10^1

The inhalation CPF is based on toxicity data derived from human occupational exposure to airborne chromium; the lung was the affected organ.

Ingestion CPF - None

EPA reports that inadequate evidence for carcinogenicity via ingestion exists for this compounds.

CAPCOA/DHS (CARB and DHS, 1985 Staff Report: Public Hearing to Consider the Adoption of a Regulatory Amendment Identifying Hexavalent Chromium as a Toxic Air Contaminant)

Inhalation CPF - 5.10×10^{-1}

Cannot verify origin of CPF. The Unit risk value from CAPCOA is 1.5×10^{-1} $(\mu\text{g}/\text{g}^3)^{-1}$, which converts to $(\text{Pot} = \text{U.R.V} \times 60,000/18)$ 5.00×10^2 . The 1.5×10^{-1} $(\mu\text{g}/\text{m}^3)^{-1}$ was found in Table 8-2, page 92 (CARB and DHS, 1985), Excess Cancer Risks from Continuous Lifetime Exposure to Hexavalent Chromium. This value was obtained from the same study as the Inhalation CPF developed by EPA, with a different interpretation (Mancuso, 1977).

Ingestion CPF - 5.10×10^2

This ingestion CPF was obtained by conversion of the DHS inhalation value.

P-DICHLOROBENZENE - Group B2 carcinogen, (U.S. EPA, 1989)

Inhalation CPF - $2.4 \times 10^{-2} \text{ (mg/kg-day)}^{-1}$

The inhalation is strictly a route-to-route extrapolation from a mouse gavage study to inhalation of p-dichlorobenzene.

Oral CPF - $2.4 \times 10^{-2} \text{ (mg/kg-day)}^{-1}$

The oral CPF is based on a 103-week gavage study using mice; the toxic effect observed was liver cancer.

DIOXANE - Group B2 carcinogen, U.S. EPA, 1988c

Inhalation CPF - 1.1×10^{-2}

There is inadequate evidence for carcinogenicity of the compound by the inhalation route. The inhalation CPF is adopted from the oral CPF.

Oral CPF - $1.1 \times 10^{-2} \text{ (mg/kg-day)}^{-1}$

The oral CPF is based on a drinking water study performed on rats. The tumor type that developed was squamous cell carcinoma of the nasal turbinates.

HEXACHLOROBENZENE - Group B2 carcinogen, (U.S. EPA, 1989)

Inhalation CPF - $1.7 \times 10^0 \text{ (mg/kg-day)}^{-1}$

The inhalation CPF is based on a route-to-route extrapolation from the oral CPF; the toxic effect observed was cancer of the liver.

Oral CPF - 1.7×10^0 (mg/kg-day)⁻¹

The oral CPF is based on a study in which hamsters were administered hexachlorobenzene in the diet; the toxic effect observed was cancer of the liver.

METHYLENE CHLORIDE - Group B2 carcinogen, (U.S. EPA, 1989)

Inhalation CPF - 4.7×10^{-7} (mg/kg-day)⁻¹

The inhalation CPF is based on an inhalation study using mice; the toxic effects observed were lung and liver cancer.

Oral CPF - 7.5×10^{-3} (mg/kg-day)⁻¹

The oral CPF is based on a drinking water study using mice; the toxic effect observed was cancer of the liver.

CAPCOA/DHS (CARB and DHS, 1984. Report to the Scientific review Panel on Methylene Chloride

Inhalation CPF - 3.33×10^{-3} (gm/kg-day)⁻¹

The inhalation CPF is based on several long-term rodent studies. Increased tumor rates were seen in the mouse liver and lung and the rat mammary gland.

NICKEL - Group A carcinogen, (U.S. EPA, 1989)

Inhalation CPF - 1.7×10^0 (mg/kg-day)⁻¹

The inhalation CPF is based on occupational exposure to nickel subsulfide; tumors were noted in the respiratory tract of the workers.

Oral CPF - 1.7×10^0 (mg/kg-day)⁻¹

There is inadequate data on the carcinogenicity of this metal for the oral route; the oral CPF was adopted from the inhalation CPF.

PERCHLOROETHYLENE - Group B2 carcinogen, EPA (U.S. EPA, 1989)

Inhalation CPF - 3.3×10^{-3} (mg/kg-day)⁻¹

The inhalation CPF is based on inhalation studies using rats and mice. The toxic effects observed were leukemia and liver cancer, respectively.

Oral CPF - 5.1×10^{-2} (mg/kg-day)⁻¹

The oral CPF is based on a gavage study using mice; the toxic effect observed was liver cancer.

TETRACHLORO-DI-BENZO-DIOXIN,2,3,7,8 - Group B2 carcinogen, (U.S. EPA, 1989)

Inhalation CPF - 1.56×10^5 (mg/kg-day)⁻¹

The inhalation CPF is based upon route-to-route extrapolation from animal exposure to TCDD in the diet to inhalation exposure.

Oral CPF - 1.56×10^5 (mg/kg-day)⁻¹

The oral CPF is based on a study performed on rats in which the animals were administered TCDD in the diet; tumors developed in several locations.

TETRACHLOROETHANE,1,1,2,2 - Group C carcinogen, (U.S. EPA, 1989)

Inhalation CPF - 2.0×10^{-1} (mg/kg-day)⁻¹

The inhalation CPF is based on route-to-route extrapolation from a gavage study to exposure by inhalation.

Oral CPF - 1.0×10^{-1} (mg/kg-day)⁻¹

The oral CPF is based on a gavage study using mice; the toxic effect observed was liver cancer.

TRICHLOROETHYLENE - Group B2 carcinogen

Inhalation CPF - 1.7×10^{-2} (mg/kg-day)⁻¹

The inhalation CPF is based on two inhalation studies using mice; the toxic effect observed was lung cancer.

Oral CPF - 1.1×10^{-2} (mg/kg-day)⁻¹

The oral CPF is based on two gavage studies using mice; the toxic effect observed was liver cancer.

TOXICOLOGICAL SUMMARIES FOR REFERENCES DOSES

REFERENCE DOSES

BARIUM

Inhalation RfD - 1×10^{-4} mg/kg-day

The inhalation reference dose is based on an inhalation study where rats were exposed to barium as barium carbonate for four hours a day for four months. The effect observed was fetotoxicity to the exposed animals. An uncertainty factor of 1000 was used to convert the animal dose to the equivalent human dose (U.S. EPA, 1989).

Oral RfD - 5×10^{-2} mg/kg-day

The oral reference dose is based on a drinking water study where rats were fed barium from barium chloride in their drinking water for approximately 16 months. The toxic effects noted were an increase in the blood pressure of the exposed animals. An uncertainty factor of 100 was used to convert from the animal dose to an equivalent human dose (U.S. EPA, 1989).

BERYLLIUM-

Inhalation RfD - None

Beryllium is classified as a group B2 carcinogen by inhalation. No informal RfD has been developed.

Oral RfD - 5.00×10^{-3} mg/kg-day

The RfD is based on a lifetime study in which rats were exposed to 5 ppm in drinking water. No toxic effects were observed. A safety factor of 100 was applied to a dose of 0.54 mg/kg-day to arrive at the RfD (U.S. EPA, 1989).

BIS(2-ETHYLHEXYL)PHTHALATE-Inhalation RfD - None

Bis(2-ethylhexyl)phthalate is considered a B2 carcinogen by ingestion, and no inhalation data is available. The oral cancer potency value has been applied to the inhalation pathway as a conservative assumption. No informal inhalation RfD has been developed.

Oral RfD - 2.0×10^{-2} mg/kg-day

The oral RfD is based on a year long study performed on guinea pigs. The guinea pigs were exposed to the phthalate in their diet. The toxic effect observed was increased liver relative weight. An uncertainty factor of 1000 was applied to a dose of 19 mg/kg-day to arrive at the RfD (U.S. EPA, 1989).

BROMODICHLOROMETHANE-Inhalation RfD - None

Since bromodichloromethane is classified as a group B2 carcinogen no informal inhalation RfD has been derived.

Oral RfD - 2.0×10^{-2} mg/kg-day

The oral RfD is based on a 102-week study performed on mice. Bromodichloromethane was administered by gavage. The exposure the RfD was based on is 25 mg/day, administered five days a week; toxic effects were observed in the kidney. A safety factor of 1000 was applied to the derived dose of 17.9 mg/kg-day to arrive at the RfD (U.S. EPA, 1989).

BROMOFORM-Inhalation RfD - 3.40×10^{-3} mg/kg-day

Since a formal inhalation RfD has not been established and bromoform is not classified as a carcinogen, an informal RfD has been derived from a Threshold Limit Value (TLV®) of 5 mg/m³. Exposure to bromoform results in irritation of the respiratory tract, pharynx and larynx; it also causes lacrimation and salivation. In addition it has been shown to cause liver damage. Because of its irritant properties, its potential to cause liver damage, and its similarity to other bromine compounds, a threshold limit value of 0.5 ppm (5 mg/m³) has been recommended. The 0.5 ppm has been adjusted for continuous exposure and two uncertainty factors of 10 have been applied. The resulting informal RfD is 3.40×10^{-3} mg/kg-day (ACGIH, 1986^b).

Oral RfD - 2.0×10^{-2} mg/kg-day

The oral RfD is based on a 13-week study performed on rats. The RfD is derived from a 25 mg/kg exposure level, five days a week; toxic effects to the liver were observed. To arrive at an RfD, a safety factor of 1000 was applied to a dose of 17.9 mg/kg-day (U.S. EPA, 1989).

BUTYLBENZYLPHTHALATE-

Inhalation RfD - 2.0×10^{-1} mg/kg-day

No formal RfD has been recommended by the EPA. Since butylbenzylphthalate is not classified as an A or B carcinogen and literature searches produced no suitable experiments from which to derive an RfD, the oral RfD has been adopted for the inhalation pathway.

Oral RfD - 2.0×10^{-1} mg/kg-day

The oral RfD is based on a 26-week study performed on rats. The butylbenzylphthalate was administered in the diet. Effects on body weight gain were observed as well as effects on testes, liver, and kidney (U.S. EPA, 1989).

CADMIUM-

Inhalation RfD - None

Since Cadmium is classified as a B2 carcinogen. No informal inhalation RfD has been derived.

Oral RfD - 1.00×10^{-3} mg/kg-day

The data for the study is not cited in the U.S. EPA Health Effects Assessment Summary Table. The oral RfD is based on human data; kidney damage is cited as the toxic effect. A safety factor of 10 has been applied to arrive at the RfD (U.S. EPA, 1989).

CHLOROBENZENE-Inhalation RfD - 5.0×10^{-3} mg/kg-day

The inhalation RfD is derived from a 120-day study performed on rats. The rats were subjected to chlorobenzene in the air seven hours a day, five days a week; toxic effects in the liver and kidney were observed. The RfD is based on a concentration of 345 mg/m³; this was converted to a 53 mg/kg-day dose. An uncertainty factor of 10,000 was applied to the dose to arrive at the RfD (U.S. EPA, 1989).

Oral RfD - 2.0×10^{-2} mg/kg-day

The oral RfD is based on a 90-day study performed on dogs. The chlorobenzene was administered by capsule; toxic effects were observed in the liver and kidney. The RfD is based on a dose of 27.3 mg/kg-day. An uncertainty factor of 1000 was applied to arrive at the oral RfD (U.S. EPA, 1989).

CHLOROFORM-Inhalation RfD - None

No formal RfD has been derived for chloroform. Chloroform is classified as a B2 carcinogen; therefore, no informal RfD has been derived.

Oral RfD - 1.0×10^{-2} mg/kg-day

The oral RfD is based on a seven and a half year study performed on dogs. Chloroform was administered at a 15 mg/kg exposure level, six days a week; injury to the liver occurred. An uncertainty factor of 1000 was applied to a derived dose 12.9 mg/kg-day to arrive at the RfD (U.S. EPA, 1989).

CHROMIUM VI-Inhalation RfD - None

Since cadmium is classified as a group B2 carcinogen. No informal inhalation RfD has been derived.

Oral RfD - 5.0×10^{-3} mg/kg-day

The RfD is based on a one-year drinking water study on rats; the toxic effects were not defined. An uncertainty factor of 100 and a modifying factor of 5 were used to convert the animal dose to an equivalent human dose (U.S. EPA, 1989).

COPPER-Inhalation RfD - 1.4×10^{-4} mg/kg-day

The EPA has not recommended an inhalation RfD for copper. Since copper has not shown any suggestion of carcinogenicity, an informal RfD has been derived. The RfD is derived from a TLV® of 0.2 mg/m³. This TLV® is determined on the basis of industrial experience. (U.S. EPA, 1984k).

Oral RfD - 3.7×10^{-2} mg/kg-day

The informal RfD is based on a water standard of 1.3 mg/l; it is based on human data. Toxic effect observed was local GI irritation (U.S. EPA, 1989). The water standard value was adjusted for a 2ℓ/day water consumption rate and an average human body weight of 70 kg to arrive at the informal RfD (U.S. EPA, 1989).

DICHLOROBENZENE, O-Inhalation RfD - 4.0×10^{-2} mg/kg-day

The inhalation RfD is based on a study performed on rats. The rats were exposed to O-dichlorobenzene seven hours per day, five days per week for up to seven months. The effect observed was decreased body weight gain. An exposure level of 290 mg/m³ was converted to a dose of 44 mg/kg-day. A uncertainty factor of 1000 was applied to arrive at the RfD. (U.S. EPA, 1989).

Oral RfD - 9.0×10^{-2} mg/kg-day

The oral RfD is based on a study performed on rats. The rats were exposed to o-dichlorophenol in their diet, five days a week for 13 weeks. Toxic effects occurred in the liver. The exposure level of 125 mg/kg-day was converted to a dose of 89 mg/kg-day. An uncertainty factor of 1000 was applied to the dose to arrive at an RfD. (U.S. EPA, 1989).

DICHLOROBENZENE, M-Inhalation RfD - None

The EPA has not established an inhalation RfD for m-dichlorobenzene to date. O-dichlorobenzene was used as a surrogate for evaluating the noncarcinogenic inhalation effects of m-dichlorobenzene.

Oral RfD - None

The EPA has not established an oral RfD for m-dichlorobenzene to date. O-dichlorobenzene was used as a surrogate for evaluating the noncarcinogen oral effects of m-dichlorobenzene.

DICHLOROBENZENE, P-Inhalation RfD - 2.0×10^{-1} mg/kg-day

The inhalation RfD is converted from a mg/m^3 units. The $7.0 \times 10^{-1} \text{ mg}/\text{m}^3$ reference dose is based on study performed on rats. The rats were exposed to o-dichlorobenzene in air five hours a day, five days a week for 76 weeks; toxic effects occurred in the liver and kidney. The exposure level of $454.6 \text{ mg}/\text{m}^3$ was used to derive the reference dose. A uncertainty factor of 100 was applied to arrive at the RfD. The $7.0 \times 10^{-1} \text{ mg}/\text{m}^3$ value has been converted to a $2.0 \times 10^{-1} \text{ mg}/\text{kg-day}$ reference dose by adjusting for a $20 \text{ m}^3/\text{day}$ breathing rate and a 70 kg average human body weight (U.S. EPA, 1989).

Oral RfD - None

O-Dichlorobenzene is classified as a group B2 carcinogen; therefore, no informal RfD has been developed.

DIETHYL PHTHALATE-Inhalation RfD - 3.4×10^{-3} mg/kg-day

An inhalation RfD has not been established by the EPA. Since diethyl phthalate is not classified as a carcinogen, an informal inhalation RfD has been derived from a TLV® of $5 \text{ mg}/\text{m}^3$; this TLV® is based on human data. Levels of a mixture of dibutyl phthalate, diethyl phthalate, and di-2-ethylhexylphthalate were measured over a period of eight days resulting in an exposure level of $8\text{-}15 \text{ mg}/\text{m}^3$. One hundred and fifty to 200 employees were exposed to this range of concentration. No phthalates were found in blood before or after the phthalate exposure. There have been no reports of cumulative effects due to occupational exposure. Based on its low order of toxicity, a TLV® of $5 \text{ mg}/\text{m}^3$ has been established (ACGIH, 1986b).

Oral RfD - 8.0×10^{-1} mg/kg-day

The oral RfD is based on a 16-week study on rats. The rats were exposed to diethylphthalate in their diet; mortality was the observed toxic effect. An exposure level of 1 percent of the diet was converted to a dose of 750 mg/kg-day. An uncertainty factor of 1000 was applied to the dose to arrive at the RfD (U.S. EPA, 1989).

DIMETHYL PHENOL-

The data concerning dimethylphenols is very limited. Since 2,6- and 3,4-dimethyl phenols have been studied and have established RfDs, 2,6- dimethylphenol, the compound with the most conservative RfD, has been chosen as a surrogate.

Inhalation RfD - 6.0×10^{-4}

Since no relevant inhalation data concerning dimethylphenols were available the inhalation RfD is adopted from the oral exposure pathway.

Oral RfD - 6.0×10^{-4}

The oral RfD is based on an eight-month study performed on rats. The method of administration was not specified; effects on blood pressure and weight gain were observed toxic effects. An uncertainty factor of 1000 was applied to a dose of 0.6 mg/kg-day to arrive at the RfD.

DIOXANE-Inhalation RfD - 6.1×10^{-2} mg/kg-day

Dioxane is assumed an inhalation carcinogen, and no formal RfD has been developed; therefore, no informal RfD has been derived.

Oral RfD - None

Dioxane is considered an ingestion carcinogen and no formal RfD has been recommended; therefore, no informal RfD has been derived (U.S. EPA, 1988°).

ETHYLENE GLYCOL-Inhalation CPF - 8.5×10^{-2} mg/kg-day

The EPA has not established an inhalation RfD. Since the EPA has not classified ethylene glycol as an A or B carcinogen, an informal RfD has been derived from a 125 mg/m³ TLV®. This TLV® is based on human data in which volunteers were exposed 22-20 hours per day for about four weeks. They complained of irritation of the throat, mild headache and low backache. The TLV® is based on exposure to the mist and vapor and is recommended to minimize irritation of the respiratory passages (ACGIH, 1986b). The TLV® of 125 mg/m³ has been adjusted for continuous exposure and an uncertainty factor of 100 has been applied; the resulting informal RfD is 0.085 mg/kg-day.

Oral RfD - 2.0×10^0 mg/kg-day

The oral RfD is based on a two-year dietary study performed on rats. The toxic effects observed were mortality as well as liver and kidney effects. An uncertainty factor of 100 was applied to a dose of 2.0 mg/kg-day to arrive at the RfD (U.S. EPA, 1989).

HEXACHLOROBENZENE-Inhalation RfD - None

The EPA has not recommended an inhalation RfD for hexachlorobenzene. Since hexachlorobenzene is classified as a group B2 carcinogen, no informal RfD has been developed.

Oral RfD - 8.0×10^{-4} mg/kg-day

The oral RfD is based on a 130-week study performed on rats. The rats were exposed to hexachlorobenzene in their diet; liver and hematological effects were observed. The exposure level of 1.6 ppm was converted to a dose of 0.08 mg/kg-day. An uncertainty factor of 100 was applied to the value to arrive at the RfD (U.S. EPA, 1989).

LEAD-

No formal reference dose has been recommended for lead due to uncertainty concerning target blood levels. An air standard and a water level have been suggested for use until the dispute is settled.

Inhalation RfD - 4.3×10^{-4} mg/kg-day

The inhalation RfD is derived from an air standard of 1.5 ug/m³. The value is adjusted for a 20 m³ breathing rate and an average human body weight of 70 kg. The resulting informal RfD is 4.3×10^{-4} (U.S. EPA, 1986).

Oral RfD - 1.4×10^{-3} mg/kg-day

The oral RfD is based on a suggested water standard of 50 ug/l. The value is adjusted for a 2 l per day water consumption rate and an average human body weight of 70 kg. The resulting informal RfD is 1.4×10^{-3} mg/kg-day (U.S. EPA, 1986).

MERCURY-Inhalation RfD - 6.80×10^{-5} mg/kg-day

The EPA has not developed an inhalation RfD for mercury. An informal inhalation RfD has been developed from a TLV® of 0.1 mg/m³. The TLV® is based on animal exposure to mercury in which the animals developed severe CNS effects. The TLV® of 0.1

mg/m³ was recommended to protect workers from a continuous exposure to mercury (ACHIH, 1986b). The TLV® has been adjusted for continuous exposure and an uncertainty factor of 100 was applied. The resulting informal RfD is 6.8×10^{-5} mg/kg-day.

Oral RfD - 3.0×10^{-4} mg/kg-day

The oral RfD is based on human data; toxic effects to the central nervous system have been observed. An uncertainty factor of 10 has been applied to arrive at the RfD (U.S. EPA, 1989).

METHYLENE BROMIDE-

Inhalation RfD - 2.53×10^{-1} mg/kg-day

An inhalation RfD has not been established by EPA. An informal RfD was developed based on a subchronic inhalation study using rats and dogs. The NOEL was determined to be 125 ppm converting this to mg/kg-day and applying an uncertainty factor of 1000, 10 for a subchronic to a chronic study, 10 for interspecies extrapolation, and 10 for sensitive individuals yields the RfD of 2.53×10^{-1} mg/kg-day (Patty's, 1981).

Oral RfD - 2.53×10^{-1} mg/kg-day

An oral RfD has not been developed by EPA. The derived inhalation RfD was used as a surrogate for the oral exposure pathway.

METHYLENE CHLORIDE-

Inhalation RfD - 3 mg/m³ or 0.86 mg/kg-day

The inhalation reference dose is 0.86 mg/kg-day. It is based on an inhalation study where rats were exposed six hours per day, five days per week for two years; the

effects of concern were not available. An uncertainty factor of 100 was used to convert from the animal dose to the equivalent human dose (U.S. EPA, 1989).

Oral RfD - 6×10^{-2} mg/kg-day

The oral reference dose is 6×10^{-2} mg/kg-day. It is based on a 24-month drinking water study in rats; liver toxicity developed in the exposed animals. An uncertainty factor of 100 was used to convert from the animal dose to the equivalent human dose (U.S. EPA, 1989).

NAPHTHALENE-

Inhalation RfD - 3.4×10^{-2} mg/kg-day

An inhalation RfD has not been established by the EPA. An informal inhalation RfD was developed based on a TLV® of 50 mg/m³. The TLV® is based on human data in which workers exposed to naphthalene developed ocular effects (ACGIH, 1986^b). The TLV® has been adjusted for continuous exposure and an uncertainty factor of 100 has been applied. The resulting informal RfD is 3.4×10^{-2} mg/kg-day.

Oral RfD - 4×10^{-1} mg/kg-day

The oral reference dose is 4×10^{-1} mg/kg-day. It is based on a study where rats were fed naphthalene in the diet for approximately 700 days. The effects seen were ocular and internal lesions. An uncertainty factor of 100 was used to convert from the animal dose to an equivalent human dose (U.S. EPA, 1989).

NICKEL-

Inhalation RfD - 6.80×10^{-5} mg/kg-day

Nickel is classified as a group A carcinogen in some forms. In the plausible scenario, nickel is not looked at as a carcinogen since it is not expected to be emitted in a carcinogenic form. An inhalation RfD has been derived for soluble forms of nickel. It is based on a TLV® of 0.1 mg/m³. It is based on lung irritation effects data (ACGIH, 1986b).

Oral RfD - 2×10^{-2} mg/kg-day

The oral reference dose is 2×10^{-2} mg/kg-day. It is based on a study where rats were fed nickel from nickel sulfate in the diet for two years; the effects seen were reduction of body and organ weight. An uncertainty factor of 100 and a modifying factor of 3 were to convert the animal dose to an equivalent human dose (U.S. EPA, 1989).

NITROBENZENE-

Inhalation RfD - 6.0×10^{-4} mg/kg-day

The inhalation RfD is based on a 90-day inhalation study performed on mice. The mice were exposed to nitrobenzene in the air six hours per day, five days per week. Toxic effects observed were hematological, adrenal, renal, and hepatic lesions. An uncertainty factor of 10,000 was applied to the dose of 5.8 mg/kg-day to arrive at the RfD (U.S. EPA, 1989).

Oral RfD - 5.0×10^{-4} mg/kg-day

The oral RfD is based on a route-to-route extrapolation from the inhalation CPF (U.S. EPA, 1989).

O-NITROPHENOL-

Inhalation RfD - 6.5×10^{-4} mg/kg-day

The information inhalation RfD is adopted from the oral RfD.

Oral RfD - 6.5×10^{-4} mg/kg-day

The oral RfD is based on an oral RfD (Vernot, 1977). The RfD is derived from the LD₅₀ using the method developed by Layton et al., 1987 (see calculations).

PHENOL-

Inhalation RfD - 1.3×10^{-2} mg/kg-day

An inhalation RfD has not been established by the EPA. An informal inhalation RfD has been developed based on a TLV® of 19 mg/m³. The TLV® was established to prevent systemic intoxication to workers from skin absorption (ACGIH, 1986^b). The TLV® has been adjusted for continuous exposure and an uncertainty factor of 100 has been applied. The resulting informal inhalation RfD is 1.3×10^{-2} mg/kg-day.

Oral RfD - 6×10^{-1} mg/kg-day

The oral reference dose is 6×10^{-1} mg/kg-day. It is based on a study where rats were given phenol by gavage during organogenesis; the result was a decrease in the fetal body weight. An uncertainty factor of 100 was used to convert an animal dose to an equivalent human dose (U.S. EPA, 1989).

SILVER-Inhalation RfD - 6.8×10^{-5} mg/kg-day

An inhalation RfD has not been established by the EPA. Since silver is not classified as a carcinogen, an informal inhalation RfD has been derived from a TLV® of 0.1 mg/m³. The TLV® is based on human data in which exposed workers developed argyria after exposure to airborne silver. The TLV® of 0.1 mg/m³ is recommended to protect workers from developing argyria (ACGIH, 1986b). This TLV® has been adjusted for continuous exposure and an uncertainty factor of 100 has been applied. The resulting RfD is 6.8×10^{-5} mg/kg-day.

Oral RfD - 3×10^{-3} mg/kg-day

The oral RfD is based on one- to three-year therapeutic treatments using humans; the toxic effect noted was argyria. An uncertainty factor of 2 was used to develop the RfD from the LOAEL (U.S. EPA, 1988c).

TETRACHLOROETHYLENE-Oral RfD - 1×10^{-2} mg/kg-day

The oral RfD is 1×10^{-2} mg/kg-day. It is based on a study in which rats were fed tetrachloroethylene five days per week for six weeks; toxic effects were noted in the liver. An uncertainty factor of 1000 was used to convert an animal dose to an equivalent human dose (U.S. EPA, 1989).

TOLUENE-

Inhalation RfD 5.7×10^{-1} mg/kg-day

The inhalation RfD is based on an inhalation study using humans. They were exposed for six hours and had CNS effects and eye and nose irritation. An uncertainty factor of 100 was used to develop the RfD (U.S. EPA, 1989).

Oral RfD - 3×10^{-1} mg/kg-day

The oral RfD is based on a study using rats. The rats were exposed six hours per day, five days per week for 24 months; effects of concern were to the CNS. An uncertainty factor of 100 was used to convert an animal dose to an equivalent human dose (U.S. EPA, 1989).

TRICHLOROBENZENE-

Inhalation RfD - 3.0×10^{-3} mg/kg-day

The inhalation RfD is based on a subchronic three-month study on rats. The rats were exposed to trichlorobenzene at various concentrations in air for six hours per day, five days per week; an increased uroporphyrin level was observed. The RfD is derived from an exposure level of 3 ppm (22 mg/cu.m) or a dose of 2.5 mg/kg-day. An uncertainty factor of 1000 was applied to the dose to arrive at the RfD, 3.0×10^{-3} mg/kg-day (U.S. EPA, 1989).

Oral RfD - 2.0×10^{-2} mg/kg-day

The oral RfD is based on a subchronic, 90-day, gavage study performed on rats. The RfD is derived from a dose of 20 mg/kg-day. An uncertainty factor of 1000 was applied to arrive at the RfD, 2.0×10^{-2} mg/kg-day (U.S. EPA, 1989).

2,4,6,-TRICHLOROPHENOL-

No RfDs established. A group B2 carcinogen.

ZINC-Inhalation RfD - None

The EPA has not recommended an inhalation RfD for Zinc.

Oral RfD - 2.0×10^{-1} mg/kg-day

An oral RfD has been recommended. The RfD is based on a human therapeutic dosage of 2.14 mg/kg-day; the toxic effect observed is anemia. An uncertainty factor of 10 was applied to arrive at the RfD (U.S. EPA, 1989).

LLNL 89 RADIONUCLIDE SUMMARIES

The radionuclides will be in an oxidative atmosphere in the incinerator. All the nuclides were assumed to be particulates except for C-14, H-3, I-125, and I-131. C-14, H-3, I-125, and I-131 are expected to be emitted as oxides or oxide ions of in the vapor phase.

TERMS*

RADIOACTIVE HALF-LIFE- The time required for a radioactive substance to lose 50 percent of its activity by decay; each radionuclide has a unique half-life.

BIOLOGICAL HALF-LIFE- The time it takes to eliminate one-half of an administered dose of a substance. Total biological half-life is determined by measurement of amounts excreted. Organ biological half-life is measured with respect to the specific organ.

ISOTOPE- Atoms with the same number of protons but a different number of neutrons.

MeV- Mega (1×10^6) electron volts. An electron volt is the energy acquired by a charged particle carrying unit electronic charge when it falls through a potential difference of 1 volt ($= 1.6020 \times 10^{-19}$ joule).

ABSORBED DOSE- The quantity of energy imparted to a mass of material exposed to radiation, measured in rads or sieverts. The energy is converted to a dose by means of a dose conversion factor.

DOSE CONVERSION FACTOR- Factor that converts energy in curies to rems.

ELECTRON CAPTURE- Electrons captured by the nucleus from an orbital of a molecule.

EFFECTIVE HALF LIFE- The time for a radioactive element, fixed in the tissue of an animal body, to be diminished by 50 percent as a result of the combined action of radioactive decay and biological elimination.

GRAY- The International Systems of Units (SI) unit proposed by the International Commission of Radiation Measurements and Units (ICRU) for the rad.

β - RADIATION- An electron emitted as a result of the conversion of a neutron to a proton.

α - RADIATION- A combination of two protons and two neutrons identical to the nucleus of an ordinary Helium atom.

GAMA RADIATION- A form of electromagnetic radiation emitted by certain radioactive nuclei. The waves are similar to light or radiowaves, but have more energy.

RAD- A unit of measurement for radiation absorbed dose. A rad measures the amount of energy absorbed by a material.

REM- Unit of biological dose. It equates biological damage to an organism independent of type of radiation. A unitless modifying factor is multiplied by the absorbed dose to determine the biological dose.

SIEVERT- The International System of Units (SI) proposed by International Commission on Radiation Measurements and Units (ICRU) for the rem.

CURIE- The quantity of radioactive material decaying at the same rate as 1 gram of Radium (3.7×10^{10} disintegrations/sec).

CONVERSION FACTORS

1 Gray = 100 rad = 1 Joule/kg

1 Sievert = 1 J/kg (= 100 rem)

The atom is composed of a small core, the nucleus and an outer area; the electron cloud. The atom resembles a miniature solar system with the nucleus acting as the sun, and the electrons acting as orbiting planets.

Two kinds of particles make up the nucleus, protons and neutrons. Protons have a positive charge while neutrons have no charge. A neutral atom has an equal number of protons and electrons. The nucleus has a positive charge with protons repelling each other. Neutrons have short-range binding forces that work to overcome the repulsion of the protons and the "glue" the nucleus together.

When the magnitude of the nuclear force exerted by the neutrons is not proportional to the repelling forces of the protons, the nucleus is unstable. An unstable atom must undergo a process to release energy in order to achieve stability.

TRITIUM- Tritium is an isotope of hydrogen with naturally occurring trace amounts. Tritium has a radioactive half-life of 12.33 years^a. Upon decay, tritium emits β - radiation with a maximum emission energy of 0.0186 MeV. Tritium has a total body biological half-life of

approximately 12 days^b. Tritium tends to distribute throughout the body and is not concentrated in any one area.

CARBON-14- Carbon-14 has a radioactive half-life of 5730 years^a. Upon decay carbon-14 emits β - radiation with a maximum emission energy of 0.156 MeV. Carbon-14 has a total body biological half-life of 10 days^b. Fat is the critical organ where carbon-14 tends to accumulated. The half-life for fat is approximately 12 days^b. Carbon-14 also tends to accumulate in the bone. The biological half-life of carbon-14 in bone is 40 days^c.

PHOSPHOROUS-32- Phosphorous-32 has a radioactive half-life of 14.28 days^a. Upon decay phosphorous-32 emits β -radiation with a maximum energy of 0.167 MeV. Gama radiation was tested for, but none was detected. Phosphorous-32 has a total body biological half-life of approximately 257 days^b. Phosphorous-32 tends to accumulate in the bone^c and has a half-life of approximately 1,155 days^b in the bone.

SULFUR-35- Sulfur-35 has a radioactive half-life of 8.74 days^a. Upon decay, sulfur-35 emits β - radiation with a maximum energy of 0.167 MeV^a. The total body biological-half life is approximately 90 days^b. Sulfur-35 tends to accumulate most readily^c in the skin. The biological half-life of sulfur-35 in the skin is approximately 1,530 days^b.

IODINE-125- Iodine-125 has a radioactive half-life of 60.2 days^a. Iodine-125 decays by electron capture. Upon decay, iodine 125 breaks down to tellurium with emission of X-rays. Gamma radiation is also emitted with a maximum energy of 0.035 MeV^a. Iodine-125 has a total body biological half-life of approximately 138 days^b. Iodine-125 tends to concentrate in the thyroid^c and has a biological half-life in the thyroid of approximately 138 days^b.

IODINE-131- Iodine-131 has a radioactive half-life of 8.040 days^a. Upon decay, Iodine 131 emits β - radiation with a maximum energy of 0.607 MeV; Xenon accompanied by X-rays, and gamma radiation with a maximum energy of 0.723 MeV^a. Iodine 131 has a biological half-life of approximately 138 days. Iodine-131 tends to concentrate in the thyroid^c and has a biological half-life in the thyroid of approximately 138 days^b.

^aMerck Index, 1983.

^bWang, Yen, CRC Handbook of Radioactive Nuclides, CRC Co., Cleveland, Ohio, 1969.

^cKinsman, Simon, Radiological Health Handbook, U.S. Department of Health, Education, and Welfare, Cincinnati, Ohio, 1957.

^dRadiological and Nuclear Safety Training, Introduction to Radiological Safety: Study Guide, Revision, Department of Energy, March 1988.

^eTerms from Radiological Health Handbook and Introduction to Radiological Safety Study Guide, and the Merck Index.

APPENDIX B
Emissions

GENERAL COMPUTATION SHEET

CLIENT NAME _____

PROJECT NAME _____

CALCULATION SET		
Prelim.		
Final		
Sheet 1 Of 32		
Charge #		
Rev.	Comp. By	Chk'd By
	GKAT	JMT
	Date 11/21/89	Date 11/29/89
	Date	Date

EMISSIONS

Emission calculations are broken into 5 basic areas

- 1) Break through POHICs
- 2) PICs
- 3) Metals (Inorganics)
- 4) Dioxins / Furans
- 5) Feed Tank

1) Break through POHICs assume that

100 - 99.99 = 0.01 % of the entering organics are emitted. This calculation was done on the "Total" Waste Characterization. This spreadsheet is repeated in this section for completeness.

2) PICs. Emissions of Products of Incomplete Combustion. Two spreadsheets are included which show how these emissions were calculated from literature data on Hazardous Waste Incineration. The two spreadsheets show Volatile & Semi-Volatile emissions.

GENERAL COMPUTATION SHEET

CLIENT NAME _____

PROJECT NAME _____

CALCULATION SET		
Prelim.		
Final		
Sheet 2 Of 32		
Charge #		
Rev.	Comp. By	Chk'd By
	GILF	MJT
	Date 11/21/89	Date 11/29/89
	Date	Date

3) Metals.

The Metals in the waste characterization were assumed to be 100% emitted. See spreadsheet.

4) Dioxin & Furan Emissions were also calculated from literature values. Three scenarios were calculated. DAS upper bound, EPA upper bound & Plausible. Different Data & Toxic equivalency schemes were used for each scenario. (See Text & calc sheets)

5) Feed Tank.

The feed tank emissions are based on the EPA methodology for estimating Breathing and Working Losses from a Fixed Roof Storage Tank. A calc sheet which lists all input data is at the end of this Appendix.

NOTE NOT ALL CHEMICALS INCLUDED IN THIS APPENDIX WERE CARRIED THROUGH THE RISK ASSESSMENT. SEE HAZARD ID SECTION.

GENERAL COMPUTATION SHEET

CLIENT NAME _____

PROJECT NAME _____

CALCULATION SET		
Prelim.		
Final		
Sheet 3 Of 32		
Charge #		
Rev.	Comp. By	Chk'd By
	GKA	MJT
	Date 11/21/89	Date 11/29/89
	Date	Date

1) BREAK THROUGH POINTS

The following spreadsheet "TOTAL1.WK1" estimates both annual average and maximum one hour emissions of Primary Organic Hazardous Constituents. The emission Rates are based on three basic data inputs

A) Mass flow of each waste into the incinerator per year or per hour depending upon which averaging period is being considered.

B) Destruction Removal Efficiency (DRE); and

C) Pollution Control Device Efficiency.
 (Note: the existing incinerator has no pollution control; efficiency = 0.0)

MASS FLOW RATES (LIQUIDS & OTHER SPECIFIC WASTES)

The mass flow rates of chemicals are based on the waste characterization and the flow rate of waste to the incinerator.

For Organics the Annual Average flow rate is equal to the waste characterization.

For example, the waste characterization lists approximately 37.2 lb of Methanol per year from the hazardous liquid waste associated with solid waste, 298.6 lb/year from the Aqueous Waste, 22.5 lb/yr from Laser Dye Waste, 2943.2 lb/yr from Organic Solutions and solvents. This amounts to a total of 3302 lb/year of methanol feed to the incinerator.

TOTAL INCINERATOR WASTE CHARACTERIZATION

CHEMICAL	CHEMICAL WASTE FROM SOLIDS lb/yr	AQUEOUS WASTE lb/yr	ORGANIC SOLUTIONS & SOLUTIONS lb/yr	LASER DYE WASTE lb/yr	TOTAL MASS FEED lb/yr	TOTAL MASS FRACTION FEED	DRE	Annual Emission Rate g/s	TOTAL MASS EMISSIONS	Max Hour Emission Rate g/s
Acetic Acid		80.81497			80.81497	0.002391	0.9999	1.16E-07	4.41E-07	1.42E-05
Acetone		4.005682		39.65544	43.66112	0.001292	0.9999	6.28E-08	2.38E-07	7.70E-06
Acrylamide	0.209502	1.615928			1.825431	0.000054	0.9999	2.63E-09	9.97E-09	3.22E-07
Azethopterin	0.034529	0.002655			0.037184	0.000001	0.9999	5.35E-11	2.03E-10	6.55E-09
Aminoimidazo Azarines	0.779220				0.779220	0.000023	0.9999	1.12E-09	4.26E-09	1.37E-07
Ammonium Hydroxide		0.758651			0.758651	0.000022	0.9999	1.09E-09	4.14E-09	1.34E-07
Ampicillin		0.017701			0.017701	0.000000	0.9999	2.55E-11	9.67E-11	3.12E-09
Benzoyl	0.000600				0.000600	0.000000	0.9999	8.64E-13	3.28E-12	1.06E-10
Benzene			14.46175		14.46175	0.000427	0.9999	2.08E-08	7.90E-08	2.55E-06
Bibenzyl			405.9		405.9	0.012011	0.9999	5.84E-07	2.22E-06	7.15E-05
Bis Acrylamide	0.027477	0.106211			0.133688	0.000003	0.9999	1.92E-10	7.30E-10	2.36E-08
Bleach		0.050576			0.050576	0.000001	0.9999	7.27E-11	2.76E-10	8.91E-09
Bromodeoxycytidine	0.017178				0.017178	0.000000	0.9999	2.47E-11	9.38E-11	3.03E-09
Bromodeoxyuridine	0.017183	0.047860			0.065044	0.000001	0.9999	9.36E-11	3.55E-10	1.15E-08
Carbodiimide..., 1-ethyl-3(3-Dimethylaminopropyl)	0.085894				0.085894	0.000002	0.9999	1.24E-10	4.69E-10	1.51E-08
Chloranphenicol		0.020230			0.020230	0.000000	0.9999	2.91E-11	1.11E-10	3.57E-09
Chloroform	0.652240	0.938831			1.591072	0.000047	0.9999	2.29E-09	8.69E-09	2.80E-07
Chromomycin A		2.393046			2.393046	0.000070	0.9999	3.44E-09	1.31E-08	4.22E-07
Chromomycin A3	0.000017				0.000017	0.000000	0.9999	2.47E-14	9.38E-14	3.03E-12
Colchicine	0.000171				0.000171	0.000000	0.9999	2.47E-13	9.38E-13	3.03E-11
Collagenase	0.000000				0.000000	1.4E-11	0.9999	6.67E-16	2.53E-15	8.18E-14
Collagenase, Type 5	0.008589				0.008589	0.000000	0.9999	1.24E-11	4.69E-11	1.51E-09
Concanavalin A	0.000001				0.000001	5.1E-11	0.9999	2.47E-15	9.38E-15	3.03E-13
Cyclophosphamide		0.000303			0.000303	0.000000	0.9999	4.36E-13	1.66E-12	5.35E-11
Dichlorodimethyl Silane	0.001973				0.001973	0.000000	0.9999	2.84E-12	1.08E-11	3.48E-10
Diesel Fuel Hydrocarbons			5.962113		5.962113	0.000176	0.9999	8.59E-09	3.26E-08	1.05E-06
Dimethyl Formamide	0.000054				0.000054	0.000000	0.9999	7.91E-14	3.00E-13	9.69E-12
Diethyl Pyrocarbonate	0.025846				0.025846	0.000000	0.9999	3.72E-11	1.41E-10	4.56E-09
Dioxane, p-	239.3297		34.30478		273.6345	0.008097	0.9999	3.94E-07	1.49E-06	4.82E-05
Enhance		7.586519			7.586519	0.000224	0.9999	1.09E-08	4.14E-08	1.34E-06
Ethidium Bromide	0.000347	0.015735			0.016083	0.000000	0.9999	2.31E-11	8.79E-11	2.83E-09
Ethanol		383.3092		6192.444	6575.754	0.194589	0.9999	9.46E-06	3.59E-05	1.16E-03
Ethylene Glycol				3069	3069	0.090817	0.9999	4.41E-06	1.68E-05	5.41E-04
Ficoll		0.957218			0.957218	0.000028	0.9999	1.38E-09	5.23E-09	1.69E-07
Formamide		109.6972			109.6972	0.003246	0.9999	1.59E-07	5.99E-07	1.93E-05
Gasoline Hydrocarbons			0.622930		0.622930	0.000018	0.9999	8.96E-10	3.40E-09	1.10E-07
Geneticin		0.012644			0.012644	0.000000	0.9999	1.82E-11	6.91E-11	2.23E-09
Glycerol		0.478330		156	156.4783	0.004630	0.9999	2.25E-07	8.55E-07	2.76E-05
Hexadecyl Pyridinium Bromide (HPB)		0.078204			0.078204	0.000002	0.9999	1.12E-10	4.27E-10	1.38E-08
Hoechst 33258 (Bisbenzimidazole)	0.343596	0.000000			0.343596	0.000010	0.9999	4.94E-10	1.88E-09	6.06E-08
Hydrocortisone 21-Hemisuccinate	0.000001				0.000001	5.1E-11	0.9999	2.47E-15	9.38E-15	3.03E-13
Hydroxyurea	0.000429				0.000429	0.000000	0.9999	6.18E-13	2.35E-12	7.57E-11
Iodobutyluridine		0.047860			0.047860	0.000001	0.9999	6.88E-11	2.61E-10	8.44E-09
Isoamyl Alcohol	0.329609	0.205594			0.535204	0.000015	0.9999	7.70E-10	2.92E-09	9.43E-08
Isopropyl Alcohol				198	198	0.005859	0.9999	2.85E-07	1.08E-06	3.49E-05
Isopropyl Thio Beta-Galactosidase	0.000054				0.000054	0.000000	0.9999	7.91E-14	3.00E-13	9.69E-12
Kerosene Hydrocarbons			13.80981		13.80981	0.000408	0.9999	1.99E-08	7.54E-08	2.43E-06
Lacquer Thinner			39.32246		39.32246	0.001163	0.9999	5.66E-08	2.15E-07	6.93E-06
Laser Dye (Surrogate)				9.125967	9.125967	0.000270	0.9999	1.31E-08	4.98E-08	1.61E-06

Methanol	37.19972	298.6112	2943.226	22.5315	3301.569	0.097699	0.9999	4.75E-06	1.80E-05	5.82E-04
Mineral Spirit Hydrocarbons			24.00876		24.00876	0.000710	0.9999	3.45E-08	1.31E-07	4.23E-06
Mycoophenolic Acid		0.002554			0.002554	0.000000	0.9999	3.67E-12	1.40E-11	4.50E-10
Mitomycin C	0.353446	0.001266			0.354713	0.000010	0.9999	5.10E-10	1.94E-09	6.25E-08
Mixed Food Mutagen	0.000858				0.000858	0.000000	0.9999	1.24E-12	4.69E-12	1.51E-10
Naphthalene	15.44710		2.292480		17.73958	0.000524	0.9999	2.55E-08	9.69E-08	3.13E-06
Oubain		0.063220			0.063220	0.000001	0.9999	9.09E-11	3.45E-10	1.11E-08
Paraformaldehyde	17.52254				17.52254	0.000518	0.9999	2.52E-08	9.57E-08	3.09E-06
Phenol	0.542015	16.43745			16.97947	0.000502	0.9999	2.44E-08	9.27E-08	2.99E-06
Phenylimidazo Pyridine (Food Mutagen)		0.000885			0.000885	0.000000	0.9999	1.27E-12	4.83E-12	1.56E-10
Phycocerythrin		0.000000			0.000000	1.4E-13	0.9999	6.88E-18	2.61E-17	8.44E-16
Polyacrilamide	0.034326				0.034326	0.000001	0.9999	4.94E-11	1.88E-10	6.05E-09
Polyethylene Glycol	0.103838				0.103838	0.000003	0.9999	1.49E-10	5.67E-10	1.83E-08
Polyvinyl Pyrrolidone		1.231383			1.231383	0.000036	0.9999	1.77E-09	6.73E-09	2.17E-07
POP 2,5-Diphenyloxazole)	1.029807				1.029807	0.000030	0.9999	1.48E-09	5.63E-09	1.82E-07
POPOP (2,2[1,4-Phenylene)Bis..	0.051490				0.051490	0.000001	0.9999	7.41E-11	2.81E-10	9.08E-09
Radiac Wash		0.478609			0.478609	0.000014	0.9999	6.89E-10	2.61E-09	8.44E-08
Sodium Chloride		24.76494			24.76494	0.000732	0.9999	3.56E-08	1.35E-07	4.36E-06
Sodium Citrate		52.40491			52.40491	0.001550	0.9999	7.54E-08	2.86E-07	9.24E-06
Sodium Dodecyl Sulfate		5.743311			5.743311	0.000169	0.9999	8.26E-09	3.14E-08	1.01E-06
Tetracycline	0.000000				1.72E-08	5.1E-13	0.9999	2.47E-17	9.38E-17	3.03E-15
Texas Red		0.000000			1.05E-08	3.1E-13	0.9999	1.51E-17	5.75E-17	1.86E-15
Toluene		0.021925	120.6530		120.6749	0.003571	0.9999	1.74E-07	6.59E-07	2.13E-05
Trimethylbenzene, 1,2,4-			102.5024		102.5024	0.003033	0.9999	1.47E-07	5.60E-07	1.81E-05
Urea	1.631458	8.395748			10.02720	0.000296	0.9999	1.44E-08	5.48E-08	1.77E-06
Vincristine	0.000171				0.000171	0.000000	0.9999	2.47E-13	9.38E-13	3.03E-11
Xylene		772.4002			772.4002	0.022856	0.9999	1.11E-06	4.22E-06	1.36E-04
Zinc Chloride		0.328749			0.328749	0.000009		4.73E-06	1.80E-05	5.79E-04
Water		17598.35	706.8750		18305.22	0.541687		2.63E-01	1.00E+00	3.23E+01

TRACE CHLORINATED COMPOUNDS

Ethylene Chloride					0.005384	0.005384	0.000000	0.9999	7.74E-12	2.94E-11	9.49E-10
Trichloroethylene					1.507752	1.507752	0.000044	0.9999	2.17E-09	8.24E-09	2.66E-07
Perchloroethylene					1.108891	1.108891	0.000032	0.9999	1.59E-09	6.06E-09	1.95E-07
Methylene Chloride					0.818438	0.818438	0.000024	0.9999	1.18E-09	4.47E-09	1.44E-07
Tetrachloroethane					0.620649	0.620649	0.000018	0.9999	8.93E-10	3.39E-09	1.09E-07

TOTALS	315.7810	18600	7902.467	6970.632	4.061115	33792.94	1	0.263315	1	5.96E-03

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MAX 1 Hr Emissions

Assume that the incinerator feed is 1 gal/minute
 = 60 gal/hour

To calculate the pounds of waste incinerated in a minute a waste density of the liquid is needed. This will be based on a weighted average of the major constituents of the total characterization.

Component	lb/yr	Spec Grav	
Ethanol	6576	0.789	5188.464
Methanol	3302	0.792	2615.184
Xylene	772.4	0.867	669.6708
Water	18305	1	18305
Ethylene Glycol	3069	1.1088	3402.907
Bibenzyl	405.9	0.9583	388.9739
Toluene	120.7	0.866	104.5262
Trimethyl Benzene	102.5	0.8758	89.7695
Glycerol	156.5	1.26	197.19
Formamide	109.7	1.139	124.9483
Dioxane, p-	273.6	1.033	282.6288
Isopropyl Alcohol	198	0.789	156.222
Total	33391.3		31525.48
Weighted Average Specific Grav. 0.944122			

The density of the waste is therefore about

$$0.944122 \times 8.345 = 7.88 \text{ lb/gal}$$

The 60 gallons per year of waste is approximately

$$60 \times 7.88 \text{ lb/gal} = 472.72 \text{ lb/hr} = 59.56 \text{ g/sec}$$

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The maximum one-hour feed rate of liquids to the incinerator is 1 gallon/minute (Personal communication from R. Salazar). This corresponds to a mass feed rate of 472.7 lb/hr (or 59.6 g/sec) (see pg 6)

The amount of each chemical incinerate was calculated by assuming the waste was the same composition as the total (annual) waste characterization.

For example, Methanol is approximately 9.8% of the waste. The ^{max} feed rate of methanol is therefore

$$472.7 (0.098) = 46.3 \text{ lb/hr}$$

Metals Since the content of metals in the wastes is listed as ppm in each waste stream a mass amount was calculated based on metals waste characterization. To do this, the mass of each type of waste listed on the metals waste characterization table needed to be quantified. The following assumptions were made.

- Organic Solvents & Solutions, as well as the laser dye waste remain the same as shown in Table 3-1.
- Aqueous Lab waste includes the liquid portion of the "Aqueous Lab Waste" associated with combination of solids as well as the Aqueous Lab waste listed in Table 3-1.
- The amount of each type of solid was calculated as shown on the following pages.

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Breakdown of Solid Emissions

Solids are emitted one of three ways

Security Burn ~ 53000 lbs / yr
(and other in contaminate solids)

Solids involved with mixed waste &
Solids involved with hazardous waste.

In 1988 ~ 179 lbs of solid waste mixed with mixed waste were combusted. This waste approx. 37.7 lbs were liquid waste. During this same period about 1130 lbs of solid waste containing radioactive waste were combusted. Of this waste only 2.8 lbs were liquid chemical.

Solids w/ low level Rad = $179 - 37.7 = 141.3$ lbs

Solids w/o low level Rad = $1130 - 2.8 = 1127.2$ lbs

The total estimate for solid waste with liquid waste contamination is 10200 lbs/yr (of which ~ 316 is liquid).

Therefore the mass of low level radioactive waste will be

$$\left(\frac{141.3}{141.3 + 1127.2} \right) (10200 - 316) = 1101 \text{ lbs / yr.}$$

Non Radioactive waste =

$$\left(\frac{1127.2}{141.3 + 1127.2} \right) (10200 - 316) + 53000 = 61,783 \text{ B-9 lbs/yr}$$

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Once the feed rates of each chemical are estimated the emissions are estimated as follows

$$\text{Emission Rate} = \text{Feed Rate} * (1 - \text{DRE}) * (1 - \text{Cont Eff}) * \left(\frac{453.59 \text{ g}}{\text{lb}}\right) * \left(\frac{\text{hr} * \text{yr}}{\text{sec}}\right)$$

(g/s) (lb/yr) or (lb/hr) (Fraction) (Fraction)

This calculation is done for the liquids on Spread sheet "TOTAL.WK1" and Inorganics on Metal.WK1

Example 1

Methanol Annual Emissions

Feed Rate = 3302 lb/year

DRE = 99.99 % or 0.9999

Cont Eff = 0 % or 0.00

$$\text{Emission Rate} = \left(3302 \frac{\text{lb}}{\text{yr}}\right) (1 - 0.9999) (1 - 0) \left(\frac{453.59 \text{ g}}{\text{lb}}\right) \left(\frac{\text{yr}}{365 \text{ d}}\right) \left(\frac{\text{d}}{24 \text{ hr}}\right) \left(\frac{\text{hr}}{3600 \text{ s}}\right)$$

$$= 4.75 \times 10^{-6} \text{ g/sec}$$

Example 2

Arsenic

Feed Rate 0.000079 lb/yr

DRE = 0

Cont Eff = 0

$$\text{Emission Rate} = \left(7.9 \times 10^{-5} \frac{\text{lb}}{\text{yr}}\right) (1 - 0) (1 - 0) \left(\frac{453 \text{ g}}{\text{lb}}\right) \left(\frac{1}{365}\right) \left(\frac{1}{24}\right) \left(\frac{1}{3600}\right)$$

$$= 1.1 \times 10^{-9} \text{ g/sec}$$

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Chromium requires special consideration since the hexavalent form but not the trivalent form is considered carcinogenic. The EPA has tested several emission sources for speciated chromium. Of the combustion sources tested the fraction of hexavalent chromium was always less than 2%. The results of those tests are listed below.

The EPA requested that all chromium emitted from the LLNL incinerator be treated as hexavalent chromium. This was done for both the DHS and EPA upper case scenarios. For the plausible scenario it was assumed that 2% (wt) of the total chromium would be in the carcinogenic hexavalent state.

CHROMIUM SPECIATION DATA FOR SEVERAL COMBUSTION SOURCES

Source	Type	Test Conditions	Ratio of Hexavalent Chromium to Total Chromium (as percent)
Entropy, 1985	Coal Fired Boiler	Uncontrolled emissions, 50% capacity	0.3
		Controlled, 50% capacity	1.7
		Uncontrolled, 80% capacity	0.3
		Controlled, 80% capacity	1.8
PEI, 1985	Coal Fired Boiler	Coverage uncontrolled	0.4
		Average controlled	0.1
PEI, 1986	Municipal Waste Incinerator	Averaged uncontrolled	0.7
Mead et al., 1986	Distillate oil combustion	Unknown	0.5

METAL1.WK1
Metal Contaminants in Incinerator Feeds

Waste Stream	Mass Lbs/yr	As ppm	Ba ppm	Cd ppm	Cr a ppm	Cr(VI) b ppm	Cr(III) b ppm	Hg ppm	Pb ppm	Ag ppm	Cu ppm	Ni ppm	Zn ppm	Be ppm
Organic Solutions and Solvents	7900	0	0	0.01	1.1	0.022	1.078	0	0	0	5	0.03	5	0
Aqueous Laboratory Waste c	18916	0	0.01	0	1.3	0.026	1.274	1	0.03	0	2.5	0.25	0.35	0
Laser Dye Waste	6970	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Level Radioactive Solid Waste	1101	0	0	0	0.01	0.0002	0.0098	0.1	0	0	0	0	0	1.5
Non Radioactive Waste	61782	0	0	0	0	0	0	0	0	0.25	0	0	0	0
Total Solid Waste d	62883													
Mass Feed Rate Lb/yr		0	0.000189	0.000079	0.033291	0.000665	0.032625	0.019026	0.000567	0.015445	0.08679	0.004966	0.046120	0.001651
Mass Emissions g/sec		0.00E+00	2.72E-09	1.14E-09	4.79E-07	9.58E-09	4.69E-07	2.74E-07	8.16E-09	2.22E-07	1.25E-06	7.14E-08	6.63E-07	2.38E-08

a For the upper bound cases the chromium content is assumed to be 100 percent hexavalent chromium.

b For the plausible case the hexavalent chromium will be assumed to be 2 percent of the total chromium. The remainder of the chromium will be considered to be trivalent chromium.

c Includes all aqueous lab waste and any liquid included with solid waste.

d Quantities of Solid waste do not include any liquids which may be physically included with the waste.

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MAX 1-HOUR (METALS)

IN ORDER TO ESTIMATE THE MAXIMUM ONE HOUR EMISSION RATE OF METALS THE MAX ONE HOUR FEED RATES OF THE WASTE TYPES IN THE METAL WASTE CHARACTERIZATION NEED TO BE KNOWN.

BULK CATEGORY MAXIMUM FEED RATES

 LIQUIDS 1 GAL/MIN $\Rightarrow$ 472.7 lb/hr

SOLIDS 400 lb/hr (personal comm R. Salazar)

SINCE SOLIDS & LIQUIDS ARE NOT COMBUSTED AT THE SAME TIME, THE MAXIMUM METAL EMISSIONS FROM LIQUID INCINERATION WILL BE COMPARED TO THE MAXIMUM ONE HOUR EMISSIONS FROM INCINERATION OF SOLIDS. THE MAXIMUM EMISSION RATE FOR EACH METAL, REGARDLESS OF WHETHER LIQUIDS & SOLIDS ARE BEING BURNED, WILL BE USED IN THE ANALYSIS

IF IS ASSUMED THAT...

THE MAXIMUM AMOUNT OF EACH LIQUID WASTE TYPE WILL BE IN THE SAME RELATIVE PROPORTION AS THE ANNUAL WASTE FEED RATES.

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LIQUID WASTE

	ANNUAL lb/yr	FRACTION	MAX HR lb/hr
ORGANIC SOLVENTS & SOLUTIONS	7900	0.234	111
AQUEOUS LAB WASTE	18600	0.551	260
LASER DYE WASTE	6970	0.206	97.3
AQUEOUS LAB WASTE ASSOCIATE W/ SOLIDS (LIQUID PORTION ONLY)	316	0.0094	4.4
TOTAL	33,786		472.7 = 473 lb/hr

SOLID WASTE	lb/yr	Fraction	MAX HR
W/ LOW LEVEL RAD.	1101	0.0175	7.0
NON RADIOACTIVE	61782	0.9825	393
	62,883		400 lb/hr

These values were input into spread sheet METHOUR.WK1

15-Nov-89

RADIANT
CORPORATIONMETHOUR1.WK1
Metal Contaminants in Incinerator Feeds

Waste Stream	Mass lb/hr	As ppm	Ba ppm	Cd ppm	Cr a ppm	Cr(VI) b ppm	Cr(III) b ppm	Hg ppm	Pb ppm	Ag ppm	Cu ppm	Ni ppm	Zn ppm	Be ppm
Organic Solutions and Solvents	111	0	0	0.01	1.1	0.022	1.078	0	0	0	5	0.03	5	0
Aqueous Laboratory Waste c	264.4	0	0.01	0	1.3	0.026	1.274	1	0.03	0	2.5	0.25	0.35	0
Laser Dye Waste	97.3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Liquid	472.7													
Low Level Radioactive Solid Waste	7	0	0	0	0.01	0.0002	0.0098	0.1	0	0	0	0	0	1.5
Non Radioactive Waste	393	0	0	0	0	0	0	0	0	0.25	0	0	0	0
Total Solid Waste d	400													
Liquid														
Mass Feed Rate lb/hr		0.00E+00	2.64E-06	1.11E-06	4.66E-04	9.32E-06	4.57E-04	2.64E-04	7.93E-06	0.00E+00	1.22E-03	6.94E-05	6.48E-04	0.00E+00
Solid														
Mass Feed Rate lb/hr		0.00E+00	0.00E+00	0.00E+00	7.00E-08	1.40E-09	6.86E-08	7.00E-07	0.00E+00	9.83E-05	0.00E+00	0.00E+00	0.00E+00	1.05E-05
Maximum														
Mass Feed Rate lb/hr		0.00E+00	2.64E-06	1.11E-06	4.66E-04	9.32E-06	4.57E-04	2.64E-04	7.93E-06	9.83E-05	1.22E-03	6.94E-05	6.48E-04	1.05E-05
Mass Emissions g/sec		0.00E+00	3.33E-07	1.40E-07	5.87E-05	1.17E-06	5.75E-05	3.33E-05	9.99E-07	1.24E-05	1.53E-04	8.75E-06	8.16E-05	1.32E-06

a For the upper bound cases the chromium content is assumed to be 100 percent hexavalent chromium.

b For the plausible case the hexavalent chromium will be assumed to be 2 percent of the total chromium. The remainder of the chromium will be considered to be trivalent chromium.

c Includes all aqueous lab waste and any liquid included with solid waste.

d Quantities of Solid waste do not include any liquids which may be physically included with the waste.

METHOUR1.WK1

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2) PICs

Emission Rates for the products of incomplete combustion were calculated from Data in the literature. Studies of the PICs from Hazardous waste combustion were screened to find data that most directly applied to the LLNL incinerator.

The emissions data included 8 hazardous waste incinerators (MRI, 1986)

American Cyanamid
 Dupont
 Mitchell
 "Plant B"
 Ross
 TWI
 Upjohn &
 Zapata (volatiles only)

Since LLNL has only trace amounts of chlorine, the incinerator data was screened to exclude all incinerators burning heavily chlorinated waste. This eliminated the Dupont, Upjohn & Ross incinerators. The elimination was based on the fact that these incinerators burned waste containing greater than 5% chlorine containing compounds while the remaining incinerators burned waste with less than 5 percent chlorine compounds (see MRI 1986 pg 56)

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Furthermore, since the LLNL incinerator has no control devices, the semivolatile analysis excluded facilities with pollution controls which could effect emissions. This constraint further eliminated the TMI data from consideration in estimating emissions of semivolatile organic chemicals.

No data for semivolatile organic chemical emissions were available for the Zapata incinerator.

Volatile Organic Emissions are listed in the work sheet VOCPIC.WK1

Semivolatile Organic Emissions are listed in the worksheet SEMIPIC.WK1

The emission factors from the literature were in units of ng/kJ. The values for each chemical were averaged and multiplied by the maximum heat throughput of the incinerator (kJ/hr). The annual average emissions were estimated by multiplying the hourly emission rate times the number of hours per year of operation (2080 hrs/yr).

The maximum heat input was taken from the RCRA Part B permit Application as 3MM Btu/hr (see page of Volume

$$(3 \times 10^6 \text{ Btu/hr}) \left(\frac{1.055 \text{ kJ}}{\text{Btu}} \right) = 3.17 \times 10^6 \text{ kJ/hr.}$$

SEMIVOLATILE EMISSIONS FROM EXISTING INCINERATOR

Chemical		Emission Rate (ng/kJ)												
		BEHP	Naph	Phenol	DIPH	BBPH	2,4 DMP	oDiClBnz	mDiClBnz	pDiClBnz	HexBenz	oNPhenol	1,2,4 TCB	MNBnz
Plant B	1		6.2	7.6	5.7	0.51		0.52	0.45	0.24	1.2		0.97	
	2		9.4	8	10	1.6		1.8	1.3	1	2.3		2	
	3		3.6	1.7	4.6	0.42		0.46	0.4	0.32	0.24		0.76	
American Cyanamide	2		150									100		
	3		19											
	4		120											23
	5		53											
Mitchell	1	2.9	7.3	29										
	2	8.4	3.4			0.21	11							
	4	10.5	4.9	4		1.1								
AVG a		7.27	37.68	10.06	6.77	0.768	11.00	0.93	0.72	0.52	1.25	100.00	1.24	23.00
Annual														
Emission Rate (g/s) b		1.52E-06	7.87E-06	2.10E-06	1.41E-06	1.60E-07	2.30E-06	1.93E-07	1.50E-07	1.09E-07	2.60E-07	2.09E-05	2.60E-07	4.80E-06
Max Hour														
Emission Rate (g/s)		6.39E-06	3.31E-05	8.84E-06	5.95E-06	6.75E-07	9.67E-06	8.15E-07	6.30E-07	4.57E-07	1.10E-06	8.79E-05	1.09E-06	2.02E-05
for a heat rate of														
3.17E+06 kJ/hr														

Source MRI, 1986, Products of Incomplete Combustion From Hazardous Waste Combustion.

BEHP = Bis(2-ethylhexyl)phthalate
 Naph = Naphthalene
 DIPH = Diethyl Phthalate
 BBPH = Butylbenzylphthalate
 2,4 DMP = 2,4-Dimethylphenol
 oDiClBnz = o-Dichlorobenzene
 mDiClBnz = m-Dichlorobenzene
 pDiClBnz = p-Dichlorobenzene
 HexBenz = Hexachlorobenzene
 oNPhenol = o-Nitrophenol
 1,2,4 TCB = 1,2,4 Trichlorobenzene
 MNBnz = Mononitrobenzene

Note: Since detection limits were not included in MRI, 1986, Nondetected chemicals were not included in the averages.

a These averages include values from facilities with waste feeds similar to the waste at LLNL for which no pollution control was indicated.

b Assumes that the incinerator operates 2080 hr/yr

Volatile Organic Compound Emissions From Existing Incinerator

		Emission Rate (ng/kJ)													
		Benzene	Toluene	CCl4	CHCl3	CH2Cl2	Tri CE	Tetra CE	1,1,1-TCACl	Benzene	CH2BrCl	CHBrCl2	CHBr3	CH2Br2	MEK
Plant B	1	2.7	12		1.6		2.8	1.2							
	2	1.7	74		6.1		9.9	5.2							
	3	3.9	36		5.2		22	41							
TWI	1	24	36	2.9	4.3	5.5	5.9	1.8		3.6	0.39	0.15		0.3	
	2	82	250	2.6	33	23	8.2	11		20	4.3	3	10	4	
	3	110	230	1.8	22	13	4.3	7.1		21	4.7	5.7	47	31	
	4	47	210	2.5	6.8	23	1.7	1.4		0.74	6.3	3.4	9.1	12	
	6	190	600	11	54	50	76	11		51	3.5	12	470	110	
	7	94	250	3.5	35	41	16	5.2		30	6.2	6.4	470	54	
	8a	17	37	15	4.4	10	4.2	1.1		3.4			34	0.86	
	8b	3.9	9.7	15	2.5	5.7	2.7	1		0.55	7.1				
American Cyanamide	1	2.1	4.1	1.5	0.49		9.1	0.16	0.97	0.9					
	2	16	2.2	0.61	8.4		6.2	0.3	0.32	2.3					
	3	4.8	3.3	0.67	2.9		3	0.89	0.058	0.41					
	4	4.1	1.5	0.32	2.1		2.3	0.16	0.15	0.59					
Zapata	2	62	25	6.7	4	12	14.5	1	0.34	24					
	3	17	4.9	7.3	4	5.8	9.9	1.3	0.79	13					
Mitchell	1	2.9	4.1	1.5	1.7	0.84	10			1.3					2.1
	2	5.5	15	2.6	2.7	5.1	9.1		0.27	1.8					6.9
	3	8.8	14	1.9	1.5	1.9	2.9			1.2					12
Total		34.97	90.94	4.55	10.13	15.14	11.04	5.34	0.41	10.34	4.64	5.11	173.35	30.31	7.00
Annual															
Emission Rate (g/s) a,b		7.30E-06	1.90E-05	9.50E-07	2.12E-06	3.16E-06	2.30E-06	1.12E-06	8.64E-08	2.16E-06	9.69E-07	1.07E-06	3.62E-05	6.33E-06	1.46E-06
Max Hour															
Emission Rate (g/s)		3.07E-05	8.00E-05	4.00E-06	8.91E-06	1.33E-05	9.70E-06	4.70E-06	3.64E-07	9.09E-06	4.08E-06	4.49E-06	1.52E-04	2.66E-05	6.15E-06
for a heat rate of															
3.17E+06 kJ/hr															

Source MRI, 1986, Products of Incomplete Combustion From Hazardous Waste Combustion

CCl4 = Carbon tetrachloride
 CHCl3 = Chloroform
 CH2Cl2 = Methylene Chloride
 Tri CE = Trichloroethene
 Tetra CE = Tetrachloroethene
 1,1,1 TCA = 1,1,1-Trichloroethane

C1 Benzene = Chlorobenzene
 CH2BrCl = Bromochloromethane
 CHBrCl2 = Bromodichloromethane
 CHBr3 = Bromoform
 CH3Br = Bromomethane
 CH2Br2 = Methylene Bromide
 MEK = Methyl ethyl ketone

a These averages include values from facilities with waste feeds similar to the waste at LLNL and for which no pollution control was indicated.

b The annual emission rate of PICs assumes that the incinerator operates 2080 hrs per year.

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 Example.
 Napthalene

Data for Napthalene are

Incinerator	Run	Emission Rate (ng/kJ)
Plant B	1	6.2
	2	9.4
	3	3.6
American Cyanamide	2	150
	3	19
	4	120
	5	53
Mitchell	1	7.3
	2	3.4
	4	4.9

Average 37.68 ng/kJ

$$\therefore \text{The emission Rate of Napthalene would be} \\ = (37.68 \times 10^{-9} \text{ g/kJ}) (3.17 \times 10^6 \text{ kJ/hr}) = 0.119 \text{ g/hr}$$

The max hour emission rate =

$$(0.119 \text{ g/hr}) \left(\frac{\text{hr}}{3600 \text{ sec}} \right) = 3.3 \times 10^{-5} \text{ g/sec}$$

The annual emission rate =

$$(0.119 \text{ g/hr}) \left(\frac{2080 \text{ hr}}{\text{yr}} \right) \left(\frac{\text{yr}}{365 \text{ d}} \right) \left(\frac{\text{d}}{24 \text{ hr}} \right) \left(\frac{\text{hr}}{3600 \text{ sec}} \right) = 7.8 \times 10^{-6} \text{ g/sec}$$

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TCDD Emissions

The following two spreadsheets list TCDD toxic equivalent concentrations for the upperbound & plausible scenarios. The concentrations from the cited literature were multiplied by the appropriate weighting factor. The weighted concentrations were summed to give a total TCDD toxic equivalent concentration. This concentration was then multiplied by the stack flow rate to give emission rates.

Upper Bound TCDD Equivalent Emissions

Compound	Test Data ng/Nm3 (a)	ITEF Weighting Factor (b)	ITEF Conc ng/Nm3	EPA Weighting Factor (c)	EPA Conc ng/Nm3	DHS Weighting Factor (d)	DHS Conc ng/Nm3
2,3,7,8-TCDD	0.08	1	8.00E-02	1	8.00E-02	1	8.00E-02
Other TCDD	0.11	0	0.00E+00	0.01	0.00E+00	0	0.00E+00
2,3,7,8-PCDD	0.01	0.5	5.00E-03	0.5	2.50E-03	1	2.50E-03
Other PCDD	0.04	0	0.00E+00	0.005	0.00E+00	0	0.00E+00
2,3,7,8-HxCDD	0.02	0.1	2.00E-03	0.04	8.00E-05	0.03	2.40E-06
Other HxCDD	0.09	0	0.00E+00	0.0004	0.00E+00	0	0.00E+00
2,3,7,8-HpCDD	0.14	0.01	1.40E-03	0.001	1.40E-06	0.03	4.20E-08
Other HpCDD	0.15	0	0.00E+00	0.00001	0.00E+00	0	0.00E+00
OCDD	0.59	0.001	5.90E-04	0	0.00E+00	0	0.00E+00
2,3,7,8-TCDF	0.17	0.1	1.70E-02	0.1	1.70E-03	1	1.70E-03
Other TCDF	0.15	0	0.00E+00	0.001	0.00E+00	0	0.00E+00
1,2,3,7,8-PCDF	0.015	0.05	7.50E-04	0.1	7.50E-05	1	7.50E-05
2,3,4,7,8-PCDF	0.015	0.5	7.50E-03	0.1	7.50E-04	1	7.50E-04
Other PCDF	0.02	0	0.00E+00	0.001	0.00E+00	0	0.00E+00
2,3,7,8-HxCDF	0.02	0.1	2.00E-03	0.01	2.00E-05	0.03	6.00E-07
Other HxCDF	0	0	0.00E+00	0.0001	0.00E+00	0	0.00E+00
2,3,7,8-HpCDF	0.02	0.01	2.00E-04	0.001	2.00E-07	0.03	6.00E-09
Other HpCDF	0	0	0.00E+00	0.00001	0.00E+00	0	0.00E+00
OCDF	0.04	0.001	4.00E-05	0	0.00E+00	0	0.00E+00
Toxic Equivalent 2,3,7,8-TCDD (ng/Nm3)			1.16E-01		8.51E-02		8.50E-02

a Ogden Projects, 1986

b International Toxicity Equivalency Factors.

c US EPA Toxicity Equivalency Factors.

d DHS Scenario 4 Toxicity Equivalency Factors.

Dioxin Equivalent Emissions (Plausible case)

Compound	Test Data ng/Nm3 (a)	Isomer Homologue (b)	Homologue Conc ng/Nm3	I-TEF Weighting Factor (c)	Toxic Equivalent ng/Nm3
Total TCDD	0.08				
2,3,7,8-TCDD		0.045	0.0036	1	3.60E-03
Other TCDD		0.955	0.0764	0	0.00E+00
Total PCDD	0.08				
2,3,7,8-PCDD		0.071	0.0057	0.5	2.84E-03
Other PCDD		0.929	0.0743	0	0.00E+00
Total HxCDD	0.08				
2,3,7,8-HxCDD		0.300	0.0240	0.1	2.40E-03
Other HxCDD		0.700	0.0560	0	0.00E+00
Total HpCDD	0.08				
2,3,7,8-HpCDD		0.500	0.0400	0.01	4.00E-04
Other HpCDD		0.500	0.0400	0	0.00E+00
OCDD	0.08	1.000	0.0800	0.001	8.00E-05
Total TCDF	0.12				
2,3,7,8-TCDF		0.026	0.0031	0.1	3.12E-04
Other TCDF		0.974	0.1169	0	0.00E+00
Total PCDF	0.019				
1,2,3,7,8-PCDF		0.036	0.00068	0.05	3.42E-05
2,3,4,7,8-PCDF		0.036	0.00068	0.5	3.42E-04
Other PCDF		0.928	0.0176	0	0.00E+00
Total HxCDF	0.037				
2,3,7,8-HxCDF		0.252	0.0093	0.1	9.32E-04
Other HxCDF		0.748	0.0277	0	0.00E+00
Total HpCDF	0.037				
2,3,7,8-HpCDF		0.500	0.0185	0.01	1.85E-04
Other HpCDF		0.500	0.0185	0	0.00E+00
OCDF	0.037	1.000	0.0370	0.001	3.70E-05
Total Equivalent 2,3,7,8-TCDD (ng/Nm3)					1.12E-02

a Castaldini, 1986.

b Assumes equal distribution of isomers.

c International weighting scheme.

d Not detected. Detection limit ranges from 0.005 to 0.080 ng/Nm3.

d Not detected. Detection limit ranges from 0.005 to 0.037 ng/Nm3.

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TCDD EMISSIONS

$$\begin{aligned}
 \text{STACK VELOCITY} &= 13.5 \text{ m/s} \\
 \text{STACK DIAMETER} &= 0.46 \text{ m} \\
 \text{STACK FLOW RATE} &= \left[\left(\frac{0.46}{2} \right)^2 \pi \right] (13.5) = 2.24 \text{ m}^3/\text{sec} \\
 \text{Temperature} &= 1800^\circ\text{F} = 982^\circ\text{C} = 1255 \text{ K}
 \end{aligned}$$

TCDD concentrations are

$$\begin{aligned}
 \text{DHS upper bound} & 8.5 \times 10^{-2} \text{ ng/Nm}^3 \\
 \text{EPA upper bound} & 8.5 \times 10^{-2} \text{ ng/Nm}^3 \\
 \text{Plausible} & 1.1 \times 10^{-2} \text{ ng/Nm}^3 \quad (\text{ITEF})
 \end{aligned}$$

Emission Rates

$$\begin{aligned}
 &\text{DHS \& EPA} \\
 &\text{Max Hour} \\
 & (8.5 \times 10^{-2} \text{ ng/Nm}^3) \left(\frac{1}{10^9} \text{ ng} \right) (2.24 \text{ m}^3/\text{sec}) \left(\frac{273}{1255} \right) = 4.14 \times 10^{-11} \text{ g/s max h} \\
 &\text{Annual (assuming the incinerator operates only 2080 hrs/yr)} \\
 & (4.14 \times 10^{-11} \text{ g/s}) \left(\frac{2080}{8760} \right) = 9.8 \times 10^{-12} \text{ g/s}
 \end{aligned}$$

Plausible -

$$\begin{aligned}
 (1.1 \times 10^{-2}) \left(\frac{1}{10^9} \right) (2.24) \left(\frac{273}{1255} \right) &= 5.4 \times 10^{-12} \text{ g/s max hour} \\
 &= 1.3 \times 10^{-12} \text{ g/s annual}
 \end{aligned}$$

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Feed Tank Emissions.

Emissions from the feed tank were estimated using the emission estimation methodology developed by the EPA for fixed roof storage tanks. (EPA 1988)

This methodology is as follows

$$\text{Emission Rate (lb/yr)} = L_B + L_W$$

$$L_B = 2.26 \times 10^{-2} (M_v) \left[\left(\frac{P}{P_A - P} \right)^{0.68} \right] (D^{1.73}) (H^{0.51}) (\Delta T^{0.50}) (F_p) (C) (K_c)$$

$$L_W = 2.40 \times 10^{-5} (M_v) (P) (V) (N) (K_N) (K_c)$$

where

- L_B = Breathing Loss lb/yr
- L_W = Working Loss lb/yr
- M_v = Molecular wt of vapor in tank, psia.
- P = Vapor pressure of liquid in tank, psia.
- P_A = Ambient pressure, psia.
- D = Tank Diameter ft
- H = Average Vapor Height in Tank, ft.
- ΔT = Average Diurnal Temperature change, °F
- F_p = Paint Factor
- C = adjustment factor for small diameter tank,
- K_c = product factor (=1)
- V = volume of Tank
- N = Turnover number (Throughput/volume)
- K_N = Turnover factor

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A spread sheet was developed to calculate emissions from a fixed roof tank. This spreadsheet lists all the appropriate inputs into this methodology.

Maximum one hour emissions were calculated by

- 1) assuming negligible breathing loss and
- 2) Calculating a turnover factor for the maximum hourly tank throughput.

General Tank Physical Data

Tank Capacity	300 gallons
internal volume capacity of storage tank	0 liters
	300 gallons
Volumetric Throughput	7500 gallons/year
volume of liquid transfered through tank	0 liters/year
in a year	7500 gallons/year
Tank type (vertical or horizontal)	V (H or V)
Tank type (Above Ground / Below ground)	A (A or B)
Tank Diameter	3.44 feet
	0 meters
	3.44 feet
Tank height or length	3.9 feet
include 1/3 the height of a tank top	0 meters
for vertical tanks	3.9 feet
Average annual percent of total tank capacity	11.9 % full
Maximum Tank Fill Rate	550 gallons/hr
	0 liters/hr
	550 gallons/hr

Tank Color

Roof	Shell	Condition (G or P)	
White	White	NA	0
Aluminum(spec)	White	NA	0
White	Aluminum(spec)	NA	0
Aluminum(spec)	Aluminum(spec)	g	1.2
White	Aluminum(diffuse)	NA	0
Aluminum(spec)	Aluminum(diffuse)	NA	0
White	Gray	NA	0
Light gray	Light gray	NA	0
Medium gray	Medium gray	NA	0
Paint Factor =			1.2
Storage Temperature Correction			2.5

Ambient Data

Ambient Pressure

14.7 psia

average ambient diurnal temperature change

20 degrees F

Chemical Data

Name	MW lb/lbmole	Vap Press mmHg	Vap Press psia	X Liq Mass Fraction	Y Vap Mass Fraction
Acetic Acid	60.05	11.55	0.223401	0.00239	0.000987
Acetone	58.08	177.467	3.432585	0.00129	0.008192
Benzene	78.11	75.07754	1.452157	0.000428	0.001149
Bibenzyl	182.27	0.012689	0.000245	0.012	0.000005
Carbodiimide	200	1	0.019342	0.000002	0.000000
Chloroform	119.39	154.9518	2.997094	0.000047	0.000261
Diesel HC	130	0.447707	0.008659	0.000176	0.000002
Dioxane, p-	88.1	30.66963	0.593215	0.0081	0.008890
Ethanol	46.07	42.43564	0.820794	0.195	0.296127
Ethylene Glycol	62.07	0.091237	0.001764	0.0908	0.000296
Formamide	45.04	0.0189	0.000365	0.00325	0.000002
Gasoline HC	66	413.7822	8.003418	0.000018	0.000272
Glycerol	92.09	0.00016	0.000003	0.00463	0.000000
Isoamyl Alcohol	88.15	2.222647	0.042990	0.000015	0.000001
Isopropyl Alcohol	60.09	31.73737	0.613867	0.00586	0.006655
Kerosene	130	0.540547	0.010455	0.000409	0.000007
Lacquer Thinner	130	0.540547	0.010455	0.00116	0.000022
Methanol	32.04	93.65556	1.811495	0.0977	0.327447
Mineral Spirits	130	0.540547	0.010455	0.00071	0.000013
Naphthalene	128.16	0.056237	0.001087	0.000525	0.000001
Paraformaldehyde	30.03	1	0.019342	0.000519	0.000018
Phenol	94.11	0.191368	0.003701	0.000502	0.000003
POPOP	150.19	1	0.019342	0.000001	0.000000
Toluene	92.13	21.79	0.421464	0.00357	0.002783
Trimethylbenzene, 1,2,4-	120.2	2.6	0.050289	0.00303	0.000281
Water	18.16	17.5701	0.339842	0.542	0.340790
Xylene	106.16	6.56	0.126884	0.0229	0.005375
Ethylene Chloride	98.97	65.56	1.268068	0.000000	0.000000
Trichloroethylene	131.4	60	1.160526	0.000044	0.000095
Perchloroethylene	165.85	14.20756	0.274804	0.000032	0.000016
Methylene Chloride	84.94	337.7055	6.531935	0.000024	0.000292
Tetrachloroethane	167.86	4.793147	0.092709	0.000018	0.000003
				0.997154	1

Solution Vapor Pressure	0.492906 psia
Solution Vapor Molecular Mass	27.85724 lb/lbmole
Stored liquid is Crude Oil ?	n (Y or N)

Summary Of Results

Tank Capacity	300 gallons
Volumetric Throughput, Annual	7500 gallons/year
Volumetric Throughput, Maximum Hour	550
Turnover Number	25
Turnover Factor	1
Effective Vertical Tank Diameter	3.44 feet
Effective Vertical Tank Vapor Space Height	3.425925 feet
Small Tank Diameter Correction	0.116440
Tank Type	Vertical Above Ground

Solution Vapor Pressure	0.492906 psia
Solution Vapor Molecular Mass	27.85724 lb/lbmole

Annual Emissions

Breathing Loss (Total volatiles)	0.674188 lb/year
Working Loss (Total Volatiles)	2.471581 lb/year
Total Volatile Losses	3.145770 lb/year

Maximum 1 Hour Emissions

Working Losses	0.181249 lb/hr

Chemical	Y Vap Mass Fraction	Annual		Max Hour	
		Emission Rate lb/yr	Emission Rate g/s	Emission Rate lb/hr	Emission Rate g/s
Acetic Acid	9.88E-04	3.11E-03	4.47E-08	1.79E-04	2.26E-05
Acetone	8.19E-03	2.58E-02	3.71E-07	1.48E-03	1.87E-04
Benzene	1.15E-03	3.62E-03	5.20E-08	2.08E-04	2.63E-05
Bibenzyl	5.45E-06	1.71E-05	2.47E-10	9.88E-07	1.24E-07
Carbodiimide	9.09E-08	2.86E-07	4.11E-12	1.65E-08	2.08E-09
Chloroform	2.61E-04	8.22E-04	1.18E-08	4.73E-05	5.96E-06
Diesel HC	2.82E-06	8.87E-06	1.28E-10	5.11E-07	6.44E-08
Dioxane, p-	8.89E-03	2.80E-02	4.02E-07	1.61E-03	2.03E-04
Ethanol	2.96E-01	9.32E-01	1.34E-05	5.37E-02	6.76E-03
Ethylene Glycol	2.96E-04	9.33E-04	1.34E-08	5.37E-05	6.77E-06
Formamide	2.20E-06	6.91E-06	9.95E-11	3.98E-07	5.02E-08
Gasoline HC	2.72E-04	8.57E-04	1.23E-08	4.94E-05	6.22E-06
Glycerol	2.65E-08	8.34E-08	1.20E-12	4.80E-09	6.05E-10
Isoamyl Alcohol	1.26E-06	3.95E-06	5.69E-11	2.28E-07	2.87E-08
Isopropyl Alcohol	6.66E-03	2.09E-02	3.01E-07	1.21E-03	1.52E-04
Kerosene	7.91E-06	2.49E-05	3.58E-10	1.43E-06	1.81E-07
Lacquer Thinner	2.24E-05	7.06E-05	1.02E-09	4.07E-06	5.12E-07
Methanol	3.27E-01	1.03E+00	1.48E-05	5.93E-02	7.48E-03
Mineral Spirits	1.37E-05	4.32E-05	6.21E-10	2.49E-06	3.14E-07
Naphthalene	1.06E-06	3.32E-06	4.78E-11	1.92E-07	2.41E-08
Paraformaldehyde	1.86E-05	5.84E-05	8.40E-10	3.37E-06	4.24E-07
Phenol	3.44E-06	1.08E-05	1.56E-10	6.23E-07	7.85E-08
POPOP	5.44E-08	1.71E-07	2.46E-12	9.86E-09	1.24E-09
Toluene	2.78E-03	8.76E-03	1.26E-07	5.05E-04	6.36E-05
Trimethylbenzene, 1,2,4-	2.82E-04	8.87E-04	1.28E-08	5.11E-05	6.44E-06
Water	3.41E-01	1.07E+00	1.54E-05	6.18E-02	7.78E-03
Xylene	5.38E-03	1.69E-02	2.43E-07	9.74E-04	1.23E-04
Ethylene Chloride	3.73E-07	1.17E-06	1.69E-11	6.76E-08	8.52E-09
Trichloroethylene	9.58E-05	3.01E-04	4.33E-09	1.74E-05	2.19E-06
Perchloroethylene	1.67E-05	5.25E-05	7.55E-10	3.02E-06	3.81E-07
Methylene Chloride	2.92E-04	9.20E-04	1.32E-08	5.30E-05	6.68E-06
Tetrachloroethane	3.16E-06	9.93E-06	1.43E-10	5.72E-07	7.21E-08

APPENDIX C
Exposure and Health Effects Calculations

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DIOXIN WEIGHTED HALF-LIVES IN THE HUMAN BODY

WORST-CASE

 TOTAL 2,3,7,8-PCDD FRACTION = 0.25 ng/NM³

TOTAL 2,3,7,8-PCDF FRACTION = 0.24

$$\text{HALF-LIFE} = \frac{0.25 (5.8)}{0.49} + \frac{0.24 (2.5)}{0.49}$$

$$= 4.2 \text{ YEARS}$$

$$t_{\frac{1}{2}} = \frac{0.693}{(4.2)(365)} = 4.5 \times 10^{-4} \text{ DAYS}^{-1}$$

PLAUSIBLE CASE

TOTAL 2,3,7,8-PCDD = 0.073

TOTAL 2,3,7,8-PCDF = 0.032

$$\text{HALF-LIFE} = \frac{0.073 (5.8)}{0.105} + \frac{0.032 (2.5)}{0.105}$$

$$= 4.8 \text{ YEARS}$$

$$t_{\frac{1}{2}} = \frac{0.693}{(4.8)(365)} = 4 \times 10^{-4} \text{ DAYS}^{-1}$$

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ROOT UPTAKE FACTORS

$$\log(RCF - 0.82) = 0.77 \log K_{ow} - 1.52$$

$$UF = \frac{RCF}{K_{oc} f_{oc}}$$

KENEGA ET AL, 1980

2,4 DIMETHYLPHENOL

$$\log K_{ow} = 2.5 \quad \text{EPA, 1979}$$

$$RCF = \log^{-1} [0.77 \log K_{ow} - 1.52] + 0.82$$

$$RCF = 3.36$$

$$\log K_{ow} = -1.07 + 1.358 \log K_{oc} \quad \text{KENEGA ET AL 1980}$$

$$\left(\frac{2.5 + 1.07}{1.358} \right) \log^{-1} = K_{oc} = 425$$

$$UF = \frac{3.36}{(425)(0.05)} = 0.16$$

ADJUST FOR TRANSLOCATION

$$\text{URBAN: } (0.16) \frac{0.01}{0.03} = 0.053$$

$$\text{RURAL} = (0.16) \frac{0.06}{0.15} = 0.064$$

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ROOT UPTAKE FACTORS

NITROBENZENE

$$\begin{aligned} \log K_{ow} &= 1.85 & \text{EPA, 1986} \\ K_{oc} &= 36 & \text{EPA, 1986} \end{aligned}$$

$$\begin{aligned} RCF &= \log^{-1} (0.77(1.85) - 1.52) + 0.82 \\ &= 1.62 \end{aligned}$$

$$UF = \frac{1.62}{(36)(0.05)} = 0.9$$

2- NITROPHENOL

$$\log K_{ow} = 1.76 \quad \text{EPA, 1979}$$

$$K_{oc} = \log^{-1} \left(\frac{1.76 + 1.07}{1.358} \right) = 121 \quad \text{KENEGA ET AL 1980}$$

$$\begin{aligned} RCF &= \log^{-1} (0.77(1.76) - 1.52) + 0.82 \\ &= 1.50 \end{aligned}$$

$$UF = \frac{1.50}{(121)(0.05)} = 0.25$$

GENERAL COMPUTATION SHEET

CLIENT NAME _____

PROJECT NAME _____

CALCULATION SET		
Prelim.		
Final		
Sheet		Of
Charge #		
Rev.	Comp. By	Chk'd By
	MTA	DC
	Date 10/21/89	Date 12/11/89
	Date	Date

1,2,4 TRICHLOROBENZENE

$$\begin{aligned} \log K_{ow} &= 4.3 & \text{EPA, 1986} \\ K_{oc} &= 9200 & \text{EPA, 1986} \end{aligned}$$

$$\begin{aligned} RCF &= \log^{-1} (0.77(4.3) - 1.52) + 0.82 \\ &= 62.6 \end{aligned}$$

$$UF = \frac{62.6}{(9200)(0.05)} = 0.14$$

ADJUST FOR TRANSLLOCATION

$$URBAN = 0.14 \times \frac{0.01}{0.03} = 0.047$$

$$RURAL = 0.14 \times \frac{0.06}{0.15} = 0.056$$

GENERAL COMPUTATION SHEET

CLIENT NAME _____

PROJECT NAME _____

CALCULATION SET		
Prelim.		
Final		
Sheet		Of
Charge #		
Rev.	Comp. By	Chk'd By
	MTA	GKA
	Date	Date
	10/20/89	11/29/89
	Date	Date

 SCREENING LEVEL WINE
 ANALYSIS

BASIS:

 GRAPE PRODUCTION = 2-5 TONS/ACRE
 ASSUME 3 TONS/ACRE (HIGH RANGE FOR CHARD)

WINE PRODUCTION = 165 GAL/TON

 FILTRATION = ~100% FOR PART. > 0.45 μ
 ~95% ALL PARTICLES

GROWING SEASON = 6 MONTHS (180 DAYS)

INTERCEPTION FRACTION = 5%

 CONSUMPTION RATE = 0-15 YRS - 0
 BOTTLE/WK 16-20 YRS - 1
 21-70 YRS - 7

 MEI GLC = 5 μg/m³/g/s
 WINE GLC = ~0.1 μg/m³/g/s

$$\begin{aligned}
 \text{GRAPE YIELD} &= 3 \frac{\text{TON}}{\text{ACRE}} \times \frac{2000 \text{ lb}}{\text{TON}} \times \frac{0.454 \text{ kg}}{1 \text{ lb}} \times \frac{\text{ACRE}}{4046.9 \text{ m}^2} \\
 &= 0.7 \text{ kg/m}^2
 \end{aligned}$$

$$\begin{aligned}
 \text{WINE YIELD} &= 165 \frac{\text{GAL}}{\text{TON}} \times \frac{\text{TON}}{2000 \text{ lb}} \times \frac{1 \text{ lb}}{0.454 \text{ kg}} \times \frac{3.785 \text{ l}}{\text{GAL}} \\
 &\times \frac{1000 \text{ g}}{\text{kg}} = 688 \frac{\text{g WINE}}{\text{kg grapes}}
 \end{aligned}$$

GENERAL COMPUTATION SHEET

 CLIENT NAME LLNL
 PROJECT NAME LLNL RCRA PART B HRA

CALCULATION SET		
Prelim.		
Final		
Sheet		Of
Charge #		
Rev.	Comp. By	Chk'd By
	MTA	GLA
	Date 10/21/89	Date 10/21/89
	Date	Date

 SCREENING LEVEL WINE CALCULATIONS
 (CONT.)

$$688 \frac{\text{g WINE}}{\text{kg GRAPE}} \times 0.7 \frac{\text{kg}}{\text{M}^2} = 0.482 \frac{\text{kg}}{\text{M}^2}$$

CONSUMPTION RATES:

WORST CASE:

$$\begin{aligned}
 & [5(1 \text{ BTL/WK}) + 50(7 \text{ BTL/WK})] / 70 \\
 & = 5 \text{ BOTTLES / WEEK} \times \frac{\text{WK}}{7 \text{ DAYS}} \times \frac{750 \text{ g}}{\text{BTL}} \quad (\text{ASSUME } 18/\text{ml}) \\
 & = 0.54 \frac{\text{kg}}{\text{DAY}} \quad \text{LIFETIME AVERAGE}
 \end{aligned}$$

GENERAL COMPUTATION SHEET

 CLIENT NAME LLNL

 PROJECT NAME RCRA PART B HRA

CALCULATION SET		
Prelim.		
Final		
Sheet		Of
Charge #		
Rev.	Comp. By	Chk'd By
	MTA	GKA
	Date 10/24/89	Date 11/28/89
	Date	Date

 WINE INGESTION RISK - ³H

 MONITORED ³H LEVELS = $4.6 \times 10^{-7} \frac{\mu\text{Ci}}{\text{ml}}$

 AVERAGE LLNL ³H EMISSIONS ('81-'87) = 3,063 Ci/yr ✓
 INCINERATOR EMISSIONS = 3 Ci/yr

 CONVERSION FROM CURIES TO REMS = $63 \frac{\mu\text{REMS}}{\mu\text{Ci}}$
EXPOSURE

$$4.6 \times 10^{-7} \frac{\mu\text{Ci}}{\text{ml}} \times \frac{540 \text{ ml}}{\text{DAY}} \times \frac{365 \text{ D}}{\text{YR}} \times 70 \text{ YRS} \times \frac{3 \text{ Ci}}{3,063 \text{ Ci}}$$

$$= 6.2 \times 10^{-3} \mu\text{Ci (LIFETIME)}$$

$$6.2 \times 10^{-3} \mu\text{Ci} \times \frac{63 \mu\text{REM}}{\mu\text{Ci}} = 3.9 \times 10^{-1} \mu\text{REM}$$

RISK

 CONVERSION OF REM TO RISK = $1.6 \times 10^{-4} \text{ (NRC)}^a$

$$3.9 \times 10^{-1} \mu\text{REM} \times 1.6 \times 10^{-4} \frac{\text{DEATHS}}{\text{PERSON-REM}} \times \frac{\text{rem}}{10^6 \mu\text{rem}} = 6.2 \times 10^{-11}$$

CONVERT TO CONTRACTING RISK

$$6.2 \times 10^{-11} \times 1.7 = 1.0 \times 10^{-10}$$

^a NRC. Federal Register, vol 51, NO. 6

J. Agric. Food & Chem., Vol 27, No. 6 1979

D. Firestone [Residues in milk and blood of PCP-fed cows]

Technical Grade PCP = 85-90% PCP
 80 mg/kg (PCP) is HCB
 other contaminants

Dosage (Oral) 2 Phases I) 10 days @ $20 \text{ mg}^{\text{T.G.}} \text{ PCP} / \text{kg}^{\text{of cow}} / \text{day}$
 II) 60 days @ $10 \text{ mg}^{\text{T.G.}} \text{ PCP} / \text{kg}^{\text{of cow}} / \text{day}$

Actual dosage:

Avg cow weights 600kg assume 87.5% of product is PCP
 $\therefore$ dosage is 5250 mg/day ~~16~~ ^{pure} PCP (Phase II)

600ml T.G. PCP contains ~~0.48~~ 480 ^{μg} of HCB

RESULTS

PCP

Cow daily food intake = 3% of weight or $\approx 18 \text{ kg}$
 $\therefore$ Dietary intake of PCP = 292 mg PCP/kg food.

$$\frac{4 \text{ mg/kg (Conc of PCP in milk)}}{292 \text{ mg/kg (Conc of PCP in diet)}} = \underline{\underline{0.014}}$$

HCB

Dietary intake of HCB = 0.48 mg HCB / 18 kg/day

0.027 mg HCB/kg food

$$\frac{200 \text{ mg/kg (Conc of HCB in milk feed)}}{27 \text{ mg/kg HCB in diet}} = \underline{\underline{7.41}}$$

GENERAL COMPUTATION SHEET

 CLIENT NAME LLNL
 PROJECT NAME HRA

Inhalation RfD from
TLV:

Sample calculation:

$$RfD = \frac{TLV(mg/m^3)}{(4.2)(10)(10)} \times \frac{20 m^3/day}{70 kg}$$

where: $4.2 = \frac{168 \text{ hrs/wk}}{40 \text{ hrs/workweek}}$

(10) : safety factor for extrapolation from the Lowest Observable Effect Level to the No Observable Effect Level.

(10) : safety factor to account for sensitive individuals.

$20 m^3/day$: human breathing rate

$70 kg$: human body weight.

Bromoform TLV = $5 mg/m^3$

$$\begin{aligned} RfD &= \frac{5 mg/m^3}{(4.2)(10)(10)} \times \frac{20 m^3/day}{70 kg} \\ &= 3.4 \times 10^{-3} mg/kg/day \end{aligned}$$

CALCULATION SET		
Prelim.		
Final		
Sheet 1 Of 3		
Charge #		
Rev.	Comp. By	Chk'd By
	DC	EL
	Date	Date
		12/24/82
	Date	Date

GENERAL COMPUTATION SHEET

CLIENT NAME LLNLPROJECT NAME HRA

CALCULATION SET		
Prelim.		
Final		
Sheet 2 Of 3		
Charge #		
Rev.	Comp. By	Chk'd By
	DC	285
	Date	Date 10/24/99
	Date	Date

Inhalation RFD from TLV (cont.)

Dibutyl Phthalate

$$TLV = 5 \text{ mg/m}^3$$

$$RFD = 3.4 \times 10^{-3} \text{ mg/kg/day}$$

Ethylene Glycol

$$TLV = 125 \text{ mg/m}^3$$

$$RFD = 8.5 \times 10^{-2} \text{ mg/kg/day}$$

Dioxane

$$TLV = 90 \text{ mg/m}^3$$

$$RFD = 6.1 \times 10^{-2} \text{ mg/kg/day}$$

Mercury

$$TLV = 0.1 \text{ mg/m}^3$$

$$RFD = 6.8 \times 10^{-5} \text{ mg/kg/day}$$

Naphthalene

$$TLV = 50 \text{ mg/m}^3$$

$$RFD = 3.4 \times 10^{-2} \text{ mg/kg/day} \quad \text{C-11}$$

GENERAL COMPUTATION SHEET

 CLIENT NAME LLNL
 PROJECT NAME HRA

CALCULATION SET		
Prelim.		
Final		
Sheet 3 Of 3		
Charge #		
Rev.	Comp. By	Chk'd By
	OC	KD
	Date 10/24/89	Date 10/24/89
	Date	Date

Inhalation RfD from TLV (cont.)

 Nickel (soluble compounds) TLV = 0.1 mg/m^3

$$\text{RfD} = 6.8 \times 10^{-5} \text{ mg/kg/day}$$

 Silver (soluble compounds) TLV = 0.01 mg/m^3

$$\text{RfD} = 6.8 \times 10^{-6} \text{ mg/kg/day}$$

 1,1,2,2 Tetrachloroethane TLV = 7 mg/m^3

$$\text{RfD} = 4.7 \times 10^{-3} \text{ mg/kg/day}$$

GENERAL COMPUTATION SHEET

 CLIENT NAME LCNL
 PROJECT NAME HRA

CALCULATION SET		
Prelim.		
Final		
Sheet Of		
Charge #		
Rev.	Comp. By	Chk'd By
	D.C.	K.E.J.
	Date 10/	Date 10/24/89
	Date	Date

Oral RFD from oral LD50:

O-Nitrophenol

(1) LD50 (oral): 1300 mg/kg

 (2) $ADI = \frac{R(p) \times LD50 (oral)}{SF}$

where ADI = acceptable daily intake or reference dose (mg/kg).

R(p): ratio of NOEL to LD50 developed by Dayton, et al, 1987.

SF: Safety factor.

$$ADI = \frac{5 \times 10^{-4} \times 1300}{(10^0 \times 10^5 \times 10^4)} = 6.5 \times 10^{-4} \text{ mg/kg/day}$$

where C: extrapolation from acute to chronic exposure

S: Accounts for sensitive individuals in population

A: extrapolation from animal to human exposure.

- (1) Vernot et al, F.H., T.D. Mac Ewen, C.C. Haun, and E.R. Kinhead. 1977. Acute Toxicity and Skin Conversion data for some organic compounds in aqueous solution. Toxicology and Applied Pharmacology 42(2): 417.
- (2) Dayton Et al Deriving Allowable Daily Intakes for systemic toxicants lacking chronic toxicity data. Regulatory Toxicology and Pharmacology 7:96-112 1987.

GENERAL COMPUTATION SHEET

 CLIENT NAME LLNL HRA
 PROJECT NAME _____

CALCULATION SET		
Prelim.		
Final		
Sheet _____ Of _____		
Charge # _____		
Rev.	Comp. By	Chk'd By
	KPT	DL
	Date 10/24/89	Date 10/24/89
	Date	Date

Derivation of an RFD
for Methylene Bromide

NOAEL from a subchronic study using
rats and dose : 125 ppm¹

$$\frac{\text{mg}}{\text{m}^3} = \frac{\text{ppm} \times \text{M.W.}}{24.5}$$

$$\frac{\text{mg}}{\text{m}^3} = \frac{125 \text{ ppm} \times 173.82}{24.5}$$

$$= 887 \text{ mg/m}^3$$

$$\frac{887 \frac{\text{mg}}{\text{m}^3} \times \frac{20 \text{ m}^3}{\text{day}}}{70 \text{ kg} \times 1000^*} = 2.53 \times 10^{-1} \text{ mg/kg/day}$$

* Safety factor of 1000 : 10 for subchronic to chronic
10 for interspecies extrapolation
10 for sensitive individuals

¹ Patty's Industrial Hygiene and Toxicology, 3rd Ed.
Volume IB, 1981, p. 3401.

GENERAL COMPUTATION SHEET

 CLIENT NAME LLNL
 PROJECT NAME HRA

Oral RfD from water
 standard:

Copper water standard: 1.3 mg/l (U.S.EPA, 1989)

$$RfD = \frac{1.3 \text{ mg/l} \times 2 \text{ l/day}}{70 \text{ kg}} = 3.7 \times 10^{-2} \text{ mg/kg/day}$$

2 l/day average assumed consumption rate
 of water.

70 kg average human body weight.

CALCULATION SET		
Prelim.		
Final		
Sheet		Of
Charge #		
Rev.	Comp. By	Chk'd By
	DC	KOG
	Date 7/6/89	Date 11/6/89
	Date	Date

GENERAL COMPUTATION SHEET

 CLIENT NAME LLNL
 PROJECT NAME HRA

CALCULATION SET		
Prelim.		
Final		
Sheet		Of
Charge #		
Rev.	Comp. By	Chk'd By
	DC	KBJ
	Date 11/6/89	Date 11/10/89
	Date	Date

lead

 Oral RfD from suggest water
 standard: 50 µg/l

(U.S. EPA, 1984)

$$RfD = \frac{50 \mu\text{g}/\text{l} \times 1 \text{mg}/1000 \mu\text{g} \times 2 \text{l}/\text{day}}{70 \text{kg}} = 1.4 \times 10^{-3} \text{mg}/\text{kg}/\text{day}$$

 2 l/day : average consumption rate for
 water.

70 kg : average human body weight

Inhalation RfD from air standard:

1.5 µg/m³ (U.S. EPA, 1984)

$$RfD = \frac{1.5 \mu\text{g}/\text{m}^3 \times 1 \text{mg}/1000 \mu\text{g} \times 20 \text{m}^3/\text{day}}{70 \text{kg}} = 4.3 \times 10^{-4} \text{mg}/\text{kg}/\text{day}$$

 20 m³/day : assumed average breathing
 rate for human being.

 70 kg : average human body
 weight.

GENERAL COMPUTATION SHEET

 CLIENT NAME CLNL
 PROJECT NAME _____

CALCULATION SET		
Prelim.		
Final		
Sheet		Of
Charge #		
Rev.	Comp. By	Chk'd By
	DC	KDJ
	Date 11/21/89	Date 11-22-89
	Date	Date

Acute Health Effects Criteria
 Developed from RFD's :

Bromodichloromethane

$$RFD = 2.0 \times 10^{-2} \text{ mg/kg/day (from oral) }$$

$$\text{ACUTE HEALTH EFFECTS CRITERIA} = \frac{RFD \times 70 \text{ kg}}{20 \text{ m}^3/\text{day}} =$$

$$= \frac{2.0 \times 10^{-2} \text{ mg/kg/day} \times 70 \text{ kg}}{20 \text{ m}^3/\text{day}} = 7.0 \times 10^{-2} \text{ mg/m}^3$$

Butylbenzylphthalate

$$RFD = 2.0 \times 10^{-1} \text{ mg/kg/day (from oral) }$$

$$\text{ACUTE HEALTH EFFECTS CRITERIA} = 7.0 \times 10^{-1} \text{ mg/m}^3$$

Dimethyl Phenol

$$RFD = 6.0 \times 10^{-4} \text{ mg/kg/day}$$

$$\text{ACUTE HEALTH EFFECTS CRITERIA} = 2.1 \times 10^{-3} \text{ mg/m}^3$$

GENERAL COMPUTATION SHEET

 CLIENT NAME LLNL
 PROJECT NAME _____

CALCULATION SET		
Prelim.		
Final		
Sheet	Of	
Charge #		
Rev.	Comp. By	Chk'd By
	OK	KDJ
	Date 11/21/89	Date 11-22-89
	Date	Date

Methylene Bromide
 $RFD = 2.53 \times 10^{-1} \text{ mg/kg/day}$ (developed from inhalation study)

 ACUTE HEALTH EFFECTS CRITERIA = $8.86 \times 10^{-1} \text{ mg/m}^3$ ✓

Nitrophenol
 $RFD = 6.5 \times 10^{-4} \text{ mg/kg/day}$ (from oral)

 ACUTE HEALTH EFFECTS CRITERIA = $2.28 \times 10^{-3} \text{ mg/m}^3$ ✓

APPENDIX D
Dispersion Model Results

ISCST RESULTS
1986

ra:jor

llisc86b.fin.iou

Tue Nov 7 08:18:39 1989

lw / OmniLaser

lw ra:jor Job: llisc86b.fin.iou Date: Tue Nov 7 08:18:39 1989

lw ra:jor Job: llisc86b.fin.iou Date: Tue Nov 7 08:18:39 1989

lw ra:jor Job: llisc86b.fin.iou Date: Tue Nov 7 08:18:39 1989

lw ra:jor Job: llisc86b.fin.iou Date: Tue Nov 7 08:18:39 1989

07/11/20
19:19:33

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1

09/11/86
19:19:33

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2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

```
CALCULATE (CONCENTRATION=1,DEPOSITION=2)
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)

ISW(1) = 1
ISW(2) = 1
ISW(3) = 1
ISW(4) = 1
ISW(5) = 1
ISW(6) = 1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)
WITH THE FOLLOWING TIME PERIODS:
HOURLY (YES=1,NO=0)
2-HOUR (YES=1,NO=0)
3-HOUR (YES=1,NO=0)
4-HOUR (YES=1,NO=0)
6-HOUR (YES=1,NO=0)
8-HOUR (YES=1,NO=0)
12-HOUR (YES=1,NO=0)
24-HOUR (YES=1,NO=0)
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)

ISW(7) = 1
ISW(8) = 0
ISW(9) = 0
ISW(10) = 0
ISW(11) = 0
ISW(12) = 0
ISW(13) = 0
ISW(14) = 0
ISW(15) = 1

PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE
SPECIFIED BY ISW(7) THROUGH ISW(14):
DAILY TABLES (YES=1,NO=0)
HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)
MAXIMUM 50 TABLES (YES=1,NO=0)
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)
DEBUG OPTION CHOSEN (YES=1,NO=2)
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)

ISW(16) = 0
ISW(17) = 1
ISW(18) = 1
ISW(19) = 1
ISW(20) = 0
ISW(21) = 1
ISW(22) = 1
ISW(23) = 0
ISW(24) = 1
ISW(25) = 2
ISW(26) = 1
ISW(27) = 1
ISW(28) = 2
ISW(29) = 2
ISW(30) = 2
ISW(31) = 0

NUMBER OF INPUT SOURCES
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)
NUMBER OF X (RANGE) GRID VALUES
NUMBER OF Y (THETA) GRID VALUES
NUMBER OF DISCRETE RECEPTORS
SOURCE EMISSION RATE UNITS CONVERSION FACTOR
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION
SURFACE STATION NO.
YEAR OF SURFACE DATA
UPPER AIR STATION NO.
YEAR OF UPPER AIR DATA
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE
ALLOCATED DATA STORAGE
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN

NSOURC = 2
NGROUP = 2
IPERD = 0
NXPNTS = 0
NYPNTS = 0
NXWYPT = 205
TK = .10000E+07
ZR = 10.00 METERS
IMET = 9
DECAY = 0.000000E+00
ISS = 1
ISY = 86
IUS = 23230
IUY = 86
ITAP = 3
LIMIT = 500000 WORDS
MIMIT = 4461 WORDS
```

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MatDat jor11/0 ***

*** METEOROLOGICAL DAYS TO BE PROCESSED ***
(IF=1)

[illegible]

*** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

1, 1,

*** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

101, 102,

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY					
	1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

09/11/01
19:17:55

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*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY					
	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

1986
10-10-86

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

* ELEVATION HEIGHTS IN METERS *
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	ELE.	- X -	- Y -	ELE.	- X -	- Y -	ELE.
614600.0	4171000.0	196.59639	614850.0	4171000.0	199.64439	615100.0	4171000.0	204.21640
615350.0	4171000.0	216.40843	615600.0	4171000.0	231.64845	615850.0	4171000.0	237.74446
616100.0	4171000.0	243.84048	616350.0	4171000.0	249.93649	616600.0	4171000.0	249.93649
614600.0	4171250.0	193.54839	614850.0	4171250.0	195.68199	615100.0	4171250.0	199.03479
615350.0	4171250.0	202.69240	615600.0	4171250.0	213.36041	615850.0	4171250.0	222.50444
616100.0	4171250.0	228.60045	616350.0	4171250.0	228.60045	616600.0	4171250.0	237.74446
614600.0	4171500.0	190.50038	614850.0	4171500.0	192.02438	615100.0	4171500.0	195.07239
615350.0	4171500.0	195.07239	615600.0	4171500.0	200.25400	615850.0	4171500.0	205.74040
616100.0	4171500.0	220.37083	616350.0	4171500.0	230.12445	616600.0	4171500.0	230.12445
614600.0	4171750.0	188.36678	614850.0	4171750.0	187.45236	615100.0	4171750.0	189.28117
615350.0	4171750.0	192.93878	615600.0	4171750.0	196.59639	615850.0	4171750.0	201.16840
616100.0	4171750.0	214.88443	616350.0	4171750.0	211.83641	616600.0	4171750.0	219.15163
614600.0	4172000.0	185.92836	614850.0	4172000.0	187.45236	615100.0	4172000.0	188.97638
615350.0	4172000.0	192.63397	615600.0	4172000.0	196.59639	615850.0	4172000.0	201.16840
616100.0	4172000.0	207.26440	616350.0	4172000.0	209.70282	616600.0	4172000.0	214.88443
614600.0	4172250.0	183.48996	614850.0	4172250.0	187.45236	615100.0	4172250.0	190.50038
615350.0	4172250.0	195.07239	615600.0	4172250.0	199.64439	615850.0	4172250.0	205.74040
616100.0	4172250.0	208.17880	616350.0	4172250.0	213.05562	616600.0	4172250.0	222.50444
614600.0	4172500.0	183.48996	614850.0	4172500.0	185.92836	615100.0	4172500.0	189.58597
615350.0	4172500.0	194.46278	615600.0	4172500.0	199.64439	615850.0	4172500.0	204.21640
616100.0	4172500.0	207.26440	616350.0	4172500.0	213.36041	616600.0	4172500.0	218.54202
616170.0	4172880.0	210.31241	612700.0	4170900.0	178.91795	612700.0	4170800.0	179.83235
612700.0	4170700.0	181.05156	612700.0	4170600.0	181.66116	612700.0	4170500.0	181.66116
612700.0	4170400.0	181.35635	612700.0	4170300.0	180.74675	612700.0	4170200.0	180.44196
612700.0	4170100.0	180.13716	615900.0	4169300.0	226.16205	613450.0	4172500.0	173.73634
613450.0	4172400.0	174.65074	613450.0	4172300.0	175.26035	613450.0	4172200.0	176.17474
613450.0	4172100.0	176.78435	613450.0	4172000.0	177.69875	613450.0	4171900.0	178.61314
613450.0	4171800.0	179.52756	613450.0	4171700.0	180.74675	613450.0	4171600.0	181.66116
613450.0	4171500.0	182.57556	613450.0	4171400.0	183.48996	613450.0	4171300.0	185.31877
613450.0	4171200.0	186.23317	613450.0	4171100.0	187.45236	613450.0	4171000.0	187.75717
613000.0	4172800.0	169.77394	613000.0	4172600.0	170.68834	613000.0	4172400.0	172.21234
613000.0	4172200.0	173.43153	613000.0	4172000.0	175.56514	613000.0	4171800.0	177.69875
613000.0	4171600.0	179.22275	613000.0	4171400.0	180.44196	613000.0	4171200.0	181.05156
613000.0	4171000.0	181.35635	613000.0	4170800.0	184.09956	613200.0	4170800.0	185.31877
613400.0	4170800.0	187.45236	613600.0	4170800.0	189.58597	613800.0	4170800.0	192.02438
614000.0	4170800.0	193.85318	614200.0	4170800.0	195.68199	614400.0	4170800.0	195.37718
614600.0	4170800.0	196.90118	614850.0	4170800.0	203.60680	615100.0	4170800.0	212.14122
615350.0	4170800.0	249.93649	615600.0	4170800.0	249.93649	615850.0	4170800.0	250.85089

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

* ELEVATION HEIGHTS IN METERS *
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	ELE.	- X -	- Y -	ELE.	- X -	- Y -	ELE.
613000.0	4170400.0	184.40436	613200.0	4170400.0	186.53796	613400.0	4170400.0	188.36678
613600.0	4170400.0	189.89078	613800.0	4170400.0	193.24358	614000.0	4170400.0	196.90118
614200.0	4170400.0	195.07239	614400.0	4170400.0	200.55879	614600.0	4170400.0	206.04521
614850.0	4170400.0	225.55244	615100.0	4170400.0	238.65887	615350.0	4170400.0	237.74446
615600.0	4170400.0	256.03250	615850.0	4170400.0	274.32053	608000.0	4166500.0	142.95148
611000.0	4165500.0	274.01575	613000.0	4167500.0	206.95961	615000.0	4166500.0	323.08862
616000.0	4169500.0	225.85724	616000.0	4172500.0	203.91161	614000.0	4174500.0	167.94513
616000.0	4175500.0	280.11176	614000.0	4177500.0	238.04927	606000.0	4174500.0	152.09550
609000.0	4174500.0	182.88036	612000.0	4174500.0	157.88670	609000.0	4173500.0	142.95148
610000.0	4175500.0	152.09550	610000.0	4173500.0	170.99313	608000.0	4177500.0	170.99313
611000.0	4177500.0	167.94513	606000.0	4171500.0	131.06425	606000.0	4172500.0	124.96825
607000.0	4172500.0	134.11226	607000.0	4171500.0	136.85547	608000.0	4172500.0	142.03708
608000.0	4171500.0	142.95148	609000.0	4172500.0	164.89713	610000.0	4172500.0	177.08914
610000.0	4171500.0	157.88670	612000.0	4171500.0	170.99313	611000.0	4169500.0	177.08914
612000.0	4170500.0	177.08914	611000.0	4172500.0	161.84912	613000.0	4172500.0	171.90753
612000.0	4173500.0	161.84912	608000.0	4169500.0	152.09550	609000.0	4169500.0	157.88670
610000.0	4169500.0	166.11633	608000.0	4170500.0	145.99948	609000.0	4170500.0	155.14351
606000.0	4170500.0	131.06425	607000.0	4170500.0	139.90347	606000.0	4169500.0	130.14986
607000.0	4169500.0	139.90347	606000.0	4168500.0	132.89307	614600.0	4170150.0	207.26440
614850.0	4170150.0	219.45644	615100.0	4170150.0	237.74446	615350.0	4170150.0	251.46049
614850.0	4169900.0	219.45644	615100.0	4169900.0	225.55244	615350.0	4169900.0	240.79248
615900.0	4172900.0	204.21640	616400.0	4172900.0	219.45644	616700.0	4172900.0	225.55244
617000.0	4172900.0	240.79248	614900.0	4171050.0	201.16840	615000.0	4171050.0	202.08279
615100.0	4171050.0	202.08279	615200.0	4171050.0	205.74040	615300.0	4171050.0	208.78841
614900.0	4171150.0	199.64439	615000.0	4171150.0	200.55879	615100.0	4171150.0	200.55879
615200.0	4171150.0	202.69240	615300.0	4171150.0	206.35001	614900.0	4171250.0	196.59639
615000.0	4171250.0	198.12039	615200.0	4171250.0	201.16840	615300.0	4171250.0	202.08279
614900.0	4171350.0	195.07239	615000.0	4171350.0	195.98679	615100.0	4171350.0	197.20599
615200.0	4171350.0	198.12039	615300.0	4171350.0	197.51079	614900.0	4171450.0	193.54839
615000.0	4171450.0	194.46278	615100.0	4171450.0	195.68199	615200.0	4171450.0	195.68199
615300.0	4171450.0	195.37718						

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat for11/0 ***

*** SOURCE DATA ***

			EMISSION RATE					TEMP.		EXIT VEL.					
			TYPE=0,1					TYPE=0		TYPE=0					
			(GRAMS/SEC)					(DEG.K);		(M/SEC);					
			TYPE=2			BASE		VERT.DIM		HORZ.DIM		DIAMETER		BLDG.	
			(GRAMS/SEC)			ELEV.		HEIGHT		TYPE=1		TYPE=1,2		TYPE=0	
SOURCE	P	K	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	TYPE=1	TYPE=1,2	TYPE=0	TYPE=0	TYPE=0	TYPE=0	TYPE=0
NUMBER	E	E	CATS.	*PER METER**2	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
101	0	0	0	0.10000E+01	614750.0	4171180.0	195.4	11.70	1255.00	7.46	0.46	5.90	8.10	8.10	
102	0	0	0	0.10000E+01	614750.0	4171180.0	195.4	3.80	293.00	0.01	0.01	-5.90	8.10	8.10	

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

IFV BH BW

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SGROI

S

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jcr11/0 ***

* 347-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	- X -	- Y -	CON.	- X -	- Y -	CON.
614600.0	4171000.0	1.64081	614850.0	4171000.0	0.88055	615100.0	4171000.0	0.85990
615350.0	4171000.0	0.93972	615600.0	4171000.0	0.79584	615850.0	4171000.0	0.69309
616100.0	4171000.0	0.59414	616350.0	4171000.0	0.50631	616600.0	4171000.0	0.43470
614600.0	4171250.0	0.06489	614850.0	4171250.0	3.72834	615100.0	4171250.0	3.54997
615350.0	4171250.0	2.15406	615600.0	4171250.0	1.53353	615850.0	4171250.0	1.09483
616100.0	4171250.0	0.82712	616350.0	4171250.0	0.65247	616600.0	4171250.0	0.53072
614600.0	4171500.0	0.07435	614850.0	4171500.0	0.17832	615100.0	4171500.0	2.49082
615350.0	4171500.0	1.94209	615600.0	4171500.0	1.46027	615850.0	4171500.0	1.18680
616100.0	4171500.0	0.89535	616350.0	4171500.0	0.69509	616600.0	4171500.0	0.55573
614600.0	4171750.0	0.06071	614850.0	4171750.0	0.10564	615100.0	4171750.0	0.38916
615350.0	4171750.0	1.54451	615600.0	4171750.0	1.67037	615850.0	4171750.0	1.43957
616100.0	4171750.0	1.24199	616350.0	4171750.0	0.94705	616600.0	4171750.0	0.70215
614600.0	4172000.0	0.06956	614850.0	4172000.0	0.10461	615100.0	4172000.0	0.17372
615350.0	4172000.0	0.68454	615600.0	4172000.0	1.37106	615850.0	4172000.0	1.60621
616100.0	4172000.0	1.49296	616350.0	4172000.0	1.16849	616600.0	4172000.0	0.88468
614600.0	4172250.0	0.06913	614850.0	4172250.0	0.10700	615100.0	4172250.0	0.15402
615350.0	4172250.0	0.40887	615600.0	4172250.0	0.98548	615850.0	4172250.0	1.48040
616100.0	4172250.0	1.50494	616350.0	4172250.0	1.27189	616600.0	4172250.0	1.02662
614600.0	4172500.0	0.07472	614850.0	4172500.0	0.09921	615100.0	4172500.0	0.13773
615350.0	4172500.0	0.25335	615600.0	4172500.0	0.61214	615850.0	4172500.0	1.02128
616100.0	4172500.0	1.21246	616350.0	4172500.0	1.20167	616600.0	4172500.0	1.08675
616170.0	4172880.0	0.85572	612700.0	4170900.0	0.12415	612700.0	4170800.0	0.13384
612700.0	4170700.0	0.14800	612700.0	4170600.0	0.15703	612700.0	4170500.0	0.15858
612700.0	4170400.0	0.15693	612700.0	4170300.0	0.15374	612700.0	4170200.0	0.14239
612700.0	4170100.0	0.12945	615900.0	4169300.0	0.16037	613450.0	4172500.0	0.07065
613450.0	4172400.0	0.08539	613450.0	4172300.0	0.09963	613450.0	4172200.0	0.11107
613450.0	4172100.0	0.11904	613450.0	4172000.0	0.12597	613450.0	4171900.0	0.14094
613450.0	4171800.0	0.16084	613450.0	4171700.0	0.17464	613450.0	4171600.0	0.16932
613450.0	4171500.0	0.17881	613450.0	4171400.0	0.15438	613450.0	4171300.0	0.16232
613450.0	4171200.0	0.17655	613450.0	4171100.0	0.19470	613450.0	4171000.0	0.19563
613000.0	4172800.0	0.08147	613000.0	4172600.0	0.09800	613000.0	4172400.0	0.11490
613000.0	4172200.0	0.12954	613000.0	4172000.0	0.16486	613000.0	4171800.0	0.17856
613000.0	4171600.0	0.18982	613000.0	4171400.0	0.14535	613000.0	4171200.0	0.14738
613000.0	4171000.0	0.13914	613000.0	4170800.0	0.17338	613200.0	4170800.0	0.19323
613400.0	4170800.0	0.23000	613600.0	4170800.0	0.28201	613800.0	4170800.0	0.35721
614000.0	4170800.0	0.41512	614200.0	4170800.0	0.59784	614400.0	4170800.0	0.89022
614600.0	4170800.0	0.72644	614850.0	4170800.0	0.78396	615100.0	4170800.0	0.45983
615350.0	4170800.0	0.35591	615600.0	4170800.0	0.41680	615850.0	4170800.0	0.38855

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'N'-DAY
347 DAY

SGROUP#

S

1

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

* 347-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	- X -	- Y -	CON.	- X -	- Y -	CON.
613000.0	4170400.0	0.18616	613200.0	4170400.0	0.19610	613400.0	4170400.0	0.21008
613600.0	4170400.0	0.25331	613800.0	4170400.0	0.36397	614000.0	4170400.0	0.45204
614200.0	4170400.0	0.42363	614400.0	4170400.0	0.36112	614600.0	4170400.0	0.49164
614850.0	4170400.0	0.49463	615100.0	4170400.0	0.41011	615350.0	4170400.0	0.26415
615600.0	4170400.0	0.21638	615850.0	4170400.0	0.15126	608000.0	4166500.0	0.02308
611000.0	4165500.0	0.07400	613000.0	4167500.0	0.08607	615000.0	4166500.0	0.06523
616000.0	4169500.0	0.13513	616000.0	4172500.0	1.06085	614000.0	4174500.0	0.04377
616000.0	4175500.0	0.12402	614000.0	4177500.0	0.08716	606000.0	4174500.0	0.08049
609000.0	4174500.0	0.18646	612000.0	4174500.0	0.04340	609000.0	4173500.0	0.05954
610000.0	4175500.0	0.04991	610000.0	4173500.0	0.16263	608000.0	4177500.0	0.07151
611000.0	4177500.0	0.04616	606000.0	4171500.0	0.02463	606000.0	4172500.0	0.02212
607000.0	4172500.0	0.03141	607000.0	4171500.0	0.02941	608000.0	4172500.0	0.04626
608000.0	4171500.0	0.03582	609000.0	4172500.0	0.12980	610000.0	4172500.0	0.23532
610000.0	4171500.0	0.06134	612000.0	4171500.0	0.10441	611000.0	4169500.0	0.09410
612000.0	4170500.0	0.11663	611000.0	4172500.0	0.11055	613000.0	4172500.0	0.11010
612000.0	4173500.0	0.07556	608000.0	4169500.0	0.03802	609000.0	4169500.0	0.04816
610000.0	4169500.0	0.06383	608000.0	4170500.0	0.03276	609000.0	4170500.0	0.04378
606000.0	4170500.0	0.02167	607000.0	4170500.0	0.02743	606000.0	4169500.0	0.01992
607000.0	4169500.0	0.02649	606000.0	4168500.0	0.02299	614600.0	4170150.0	0.42971
614850.0	4170150.0	0.38788	615100.0	4170150.0	0.34046	615350.0	4170150.0	0.30088
614850.0	4169900.0	0.30518	615100.0	4169900.0	0.24159	615350.0	4169900.0	0.28716
615900.0	4172900.0	0.64548	616400.0	4172900.0	0.85261	616700.0	4172900.0	0.90185
617000.0	4172900.0	0.83116	614900.0	4171050.0	0.85841	615000.0	4171050.0	1.10542
615100.0	4171050.0	1.24203	615200.0	4171050.0	1.40693	615300.0	4171050.0	1.34616
614900.0	4171150.0	4.24440	615000.0	4171150.0	4.25641	615100.0	4171150.0	3.27239
615200.0	4171150.0	2.70035	615300.0	4171150.0	2.36182	614900.0	4171250.0	4.43035
615000.0	4171250.0	4.35615	615200.0	4171250.0	2.92604	615300.0	4171250.0	2.35964
614900.0	4171350.0	2.23702	615000.0	4171350.0	3.83860	615100.0	4171350.0	3.25369
615200.0	4171350.0	2.53244	615300.0	4171350.0	1.95597	614900.0	4171450.0	0.53264
615000.0	4171450.0	2.04599	615100.0	4171450.0	3.01967	615200.0	4171450.0	2.57423
615300.0	4171450.0	2.04184						

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HIGH
1-HR
SGROU

1

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MatDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
614600.0	4171000.0	82.62163	(63, 12)	614850.0	4171000.0	112.11277	(310, 13)
615100.0	4171000.0	112.06430	(23, 14)	615350.0	4171000.0	84.08543	(17, 17)
615600.0	4171000.0	63.77350	(64, 18)	615850.0	4171000.0	67.53230	(360, 20)
616100.0	4171000.0	69.22263	(2, 2)	616350.0	4171000.0	69.14584	(97, 2)
616600.0	4171000.0	67.25921	(97, 2)	614600.0	4171250.0	47.96625	(72, 17)
614850.0	4171250.0	86.01900	(91, 14)	615100.0	4171250.0	100.10664	(102, 19)
615350.0	4171250.0	75.66895	(189, 10)	615600.0	4171250.0	79.92304	(89, 6)
615850.0	4171250.0	73.60410	(158, 24)	616100.0	4171250.0	71.75637	(158, 24)
616350.0	4171250.0	63.64628	(158, 24)	616600.0	4171250.0	55.45048	(249, 20)
614600.0	4171500.0	44.49676	(68, 10)	614850.0	4171500.0	49.75553	(72, 19)
615100.0	4171500.0	58.40266	(207, 9)	615350.0	4171500.0	49.11669	(220, 8)
615600.0	4171500.0	46.42868	(107, 8)	615850.0	4171500.0	66.07697	(19, 20)
616100.0	4171500.0	69.63567	(234, 21)	616350.0	4171500.0	66.58461	(75, 5)
616600.0	4171500.0	62.71436	(2, 20)	614600.0	4171750.0	32.89233	(68, 16)
614850.0	4171750.0	34.28262	(354, 18)	615100.0	4171750.0	34.56849	(96, 17)
615350.0	4171750.0	41.07952	(183, 8)	615600.0	4171750.0	60.84868	(250, 8)
615850.0	4171750.0	45.32948	(360, 5)	616100.0	4171750.0	71.11068	(352, 7)
616350.0	4171750.0	68.53603	(263, 23)	616600.0	4171750.0	66.20914	(353, 21)
614600.0	4172000.0	26.77127	(353, 11)	614850.0	4172000.0	31.40211	(260, 13)
615100.0	4172000.0	32.68941	(257, 8)	615350.0	4172000.0	41.88412	(1, 11)
615600.0	4172000.0	36.46856	(195, 7)	615850.0	4172000.0	44.53780	(192, 1)
616100.0	4172000.0	70.08564	(120, 22)	616350.0	4172000.0	69.53149	(321, 6)
616600.0	4172000.0	67.24862	(55, 3)	614600.0	4172250.0	27.00030	(2, 11)
614850.0	4172250.0	26.86417	(260, 13)	615100.0	4172250.0	27.67226	(44, 15)
615350.0	4172250.0	25.54644	(302, 5)	615600.0	4172250.0	40.16150	(116, 1)
615850.0	4172250.0	64.34807	(346, 1)	616100.0	4172250.0	67.01452	(10, 22)
616350.0	4172250.0	67.05703	(237, 23)	616600.0	4172250.0	65.75612	(289, 3)
614600.0	4172500.0	22.79303	(2, 11)	614850.0	4172500.0	20.44572	(238, 7)
615100.0	4172500.0	24.13758	(27, 20)	615350.0	4172500.0	29.30138	(81, 19)
615600.0	4172500.0	37.45008	(1, 10)	615850.0	4172500.0	56.51046	(335, 23)
616100.0	4172500.0	68.59035	(346, 1)	616350.0	4172500.0	64.33624	(30, 2)
616600.0	4172500.0	61.70684	(53, 6)	616170.0	4172880.0	64.62548	(335, 23)
612700.0	4170900.0	14.24526	(24, 10)	612700.0	4170800.0	16.17707	(298, 8)
612700.0	4170700.0	16.53913	(317, 10)	612700.0	4170600.0	16.86474	(15, 10)
612700.0	4170500.0	16.82800	(280, 18)	612700.0	4170400.0	20.73960	(12, 16)
612700.0	4170300.0	29.18349	(12, 16)	612700.0	4170200.0	26.79113	(12, 16)
612700.0	4170100.0	17.94880	(12, 15)	615900.0	4169300.0	59.49173	(53, 23)
613450.0	4172500.0	14.07253	(343, 18)	613450.0	4172400.0	25.08078	(2, 10)

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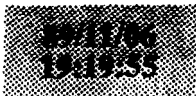
HIGH
1-HR
SGROUP #

1

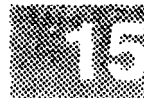
*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
613450.0	4172300.0	35.51701	(2, 10)	613450.0	4172200.0	31.96341	(2, 10)
613450.0	4172100.0	16.54738	(2, 10)	613450.0	4172000.0	15.87350	(38, 20)
613450.0	4171900.0	17.53368	(347, 10)	613450.0	4171800.0	17.67517	(87, 20)
613450.0	4171700.0	19.86533	(110, 21)	613450.0	4171600.0	19.81575	(40, 19)
613450.0	4171500.0	22.50388	(54, 10)	613450.0	4171400.0	20.40555	(20, 18)
613450.0	4171300.0	25.77437	(2, 15)	613450.0	4171200.0	33.91499	(2, 15)
613450.0	4171100.0	25.01282	(2, 15)	613450.0	4171000.0	22.51965	(79, 18)
613000.0	4172800.0	24.25262	(2, 10)	613000.0	4172600.0	32.48296	(2, 10)
613000.0	4172400.0	13.16512	(99, 9)	613000.0	4172200.0	13.78105	(38, 20)
613000.0	4172000.0	14.61848	(62, 19)	613000.0	4171800.0	16.32135	(58, 20)
613000.0	4171600.0	18.31805	(54, 10)	613000.0	4171400.0	17.64450	(52, 19)
613000.0	4171200.0	26.04323	(2, 15)	613000.0	4171000.0	18.51434	(24, 10)
613000.0	4170800.0	18.14316	(298, 8)	613200.0	4170800.0	20.36933	(317, 10)
613400.0	4170800.0	24.41099	(333, 18)	613600.0	4170800.0	27.71117	(2, 12)
613800.0	4170800.0	51.57517	(12, 16)	614000.0	4170800.0	55.46870	(12, 16)
614200.0	4170800.0	47.53107	(9, 16)	614400.0	4170800.0	57.44609	(315, 16)
614600.0	4170800.0	64.77765	(363, 17)	614850.0	4170800.0	79.31161	(92, 13)
615100.0	4170800.0	98.55721	(128, 8)	615350.0	4170800.0	76.99647	(260, 10)
615600.0	4170800.0	81.38527	(73, 19)	615850.0	4170800.0	66.30048	(231, 22)
613000.0	4170400.0	34.24835	(12, 16)	613200.0	4170400.0	28.72437	(12, 16)
613400.0	4170400.0	22.93505	(307, 17)	613600.0	4170400.0	24.65424	(21, 17)
613800.0	4170400.0	31.31570	(297, 9)	614000.0	4170400.0	39.30906	(77, 18)
614200.0	4170400.0	37.96119	(358, 17)	614400.0	4170400.0	48.69672	(337, 15)
614600.0	4170400.0	74.18742	(358, 19)	614850.0	4170400.0	80.10812	(341, 5)
615100.0	4170400.0	66.30428	(304, 22)	615350.0	4170400.0	63.98518	(359, 24)
615600.0	4170400.0	66.11395	(356, 6)	615850.0	4170400.0	66.40722	(19, 3)
608000.0	4166500.0	6.24484	(21, 17)	611000.0	4165500.0	25.36986	(330, 7)
613000.0	4167500.0	41.21613	(340, 3)	615000.0	4166500.0	32.09671	(18, 20)
616000.0	4169500.0	65.79596	(22, 6)	616000.0	4172500.0	54.30827	(11, 1)
614000.0	4174500.0	19.63561	(184, 8)	616000.0	4175500.0	39.11227	(12, 24)
614000.0	4177500.0	27.91858	(12, 23)	606000.0	4174500.0	4.64198	(333, 9)
609000.0	4174500.0	13.50227	(52, 7)	612000.0	4174500.0	7.24447	(302, 9)
609000.0	4173500.0	4.69627	(346, 19)	610000.0	4175500.0	11.41779	(2, 10)
610000.0	4173500.0	9.29049	(343, 24)	608000.0	4177500.0	7.81471	(330, 24)
611000.0	4177500.0	7.26786	(14, 7)	606000.0	4171500.0	5.99283	(2, 15)
606000.0	4172500.0	4.72638	(324, 10)	607000.0	4172500.0	5.05566	(324, 10)
607000.0	4171500.0	6.58704	(2, 15)	608000.0	4172500.0	5.19623	(54, 10)
608000.0	4171500.0	7.29410	(2, 15)	609000.0	4172500.0	7.63819	(286, 8)



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HIGH
1-HI
SGRO

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
610000.0	4172500.0	10.91401	(14, 3)	610000.0	4171500.0	9.06835	(2, 15)
612000.0	4171500.0	10.83227	(13, 19)	611000.0	4169500.0	17.18492	(12, 16)
612000.0	4170500.0	13.92218	(317, 10)	611000.0	4172500.0	7.68420	(327, 23)
613000.0	4172500.0	24.37331	(2, 10)	612000.0	4173500.0	24.26472	(2, 10)
608000.0	4169500.0	7.46378	(317, 10)	609000.0	4169500.0	6.51998	(317, 10)
610000.0	4169500.0	8.02137	(2, 12)	608000.0	4170500.0	4.71839	(10, 3)
609000.0	4170500.0	6.10615	(331, 9)	606000.0	4170500.0	3.20113	(2, 15)
607000.0	4170500.0	4.00745	(99, 8)	606000.0	4169500.0	3.76575	(317, 10)
607000.0	4169500.0	5.79329	(317, 10)	606000.0	4168500.0	3.89331	(2, 12)
614600.0	4170150.0	77.13744	(16, 24)	614850.0	4170150.0	66.95638	(329, 1)
615100.0	4170150.0	68.33720	(275, 7)	615350.0	4170150.0	69.99118	(14, 8)
614850.0	4169900.0	67.75080	(18, 20)	615100.0	4169900.0	70.05308	(320, 5)
615350.0	4169900.0	71.30247	(271, 6)	615900.0	4172900.0	55.28781	(242, 3)
616400.0	4172900.0	62.07924	(62, 1)	616700.0	4172900.0	57.00898	(345, 7)
617000.0	4172900.0	55.01677	(27, 4)	614900.0	4171050.0	102.46269	(98, 14)
615000.0	4171050.0	124.86116	(23, 14)	615100.0	4171050.0	101.34962	(89, 17)
615200.0	4171050.0	105.56352	(17, 17)	615300.0	4171050.0	91.72279	(64, 18)
614900.0	4171150.0	144.60629	(161, 14)	615000.0	4171150.0	121.43512	(239, 16)
615100.0	4171150.0	99.04012	(120, 18)	615200.0	4171150.0	94.29070	(234, 19)
615300.0	4171150.0	92.90491	(288, 10)	614900.0	4171250.0	109.53241	(161, 9)
615000.0	4171250.0	93.69269	(123, 12)	615200.0	4171250.0	85.40714	(208, 19)
615300.0	4171250.0	78.52415	(236, 19)	614900.0	4171350.0	72.37180	(203, 16)
615000.0	4171350.0	108.12634	(250, 8)	615100.0	4171350.0	73.56991	(136, 19)
615200.0	4171350.0	68.66554	(223, 18)	615300.0	4171350.0	60.64608	(245, 19)
614900.0	4171450.0	56.27739	(165, 19)	615000.0	4171450.0	60.99838	(246, 16)
615100.0	4171450.0	65.49686	(246, 8)	615200.0	4171450.0	92.52360	(250, 8)
615300.0	4171450.0	52.96380	(290, 9)				

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2ND HIGH
1-HR
SGROUP#

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
614600.0	4171000.0	79.44711	(287, 11)	614850.0	4171000.0	110.71181	(92, 16)
615100.0	4171000.0	109.49007	(98, 13)	615350.0	4171000.0	77.55223	(89, 18)
615600.0	4171000.0	59.49251	(2, 24)	615850.0	4171000.0	66.63719	(318, 8)
616100.0	4171000.0	68.06058	(295, 20)	616350.0	4171000.0	67.08751	(265, 24)
616600.0	4171000.0	66.26975	(17, 4)	614600.0	4171250.0	45.98141	(29, 13)
614850.0	4171250.0	85.72235	(91, 16)	615100.0	4171250.0	88.01440	(245, 16)
615350.0	4171250.0	74.29295	(236, 19)	615600.0	4171250.0	75.89748	(333, 1)
615850.0	4171250.0	69.61084	(158, 21)	616100.0	4171250.0	62.91131	(317, 24)
616350.0	4171250.0	59.66350	(249, 20)	616600.0	4171250.0	53.84435	(158, 24)
614600.0	4171500.0	42.15684	(29, 18)	614850.0	4171500.0	45.22316	(46, 10)
615100.0	4171500.0	58.21608	(284, 9)	615350.0	4171500.0	48.00820	(221, 8)
615600.0	4171500.0	43.82544	(192, 20)	615850.0	4171500.0	65.52691	(249, 21)
616100.0	4171500.0	66.51048	(112, 1)	616350.0	4171500.0	65.23234	(204, 22)
616600.0	4171500.0	58.63803	(249, 23)	614600.0	4171750.0	32.37645	(74, 11)
614850.0	4171750.0	32.42936	(15, 17)	615100.0	4171750.0	32.81128	(186, 8)
615350.0	4171750.0	40.66782	(293, 9)	615600.0	4171750.0	54.88611	(311, 9)
615850.0	4171750.0	44.03980	(118, 1)	616100.0	4171750.0	64.04229	(203, 2)
616350.0	4171750.0	66.95306	(71, 5)	616600.0	4171750.0	60.42737	(201, 22)
614600.0	4172000.0	23.02607	(74, 13)	614850.0	4172000.0	26.19217	(66, 10)
615100.0	4172000.0	29.22968	(31, 16)	615350.0	4172000.0	38.73693	(186, 8)
615600.0	4172000.0	36.11840	(328, 10)	615850.0	4172000.0	43.29542	(311, 9)
616100.0	4172000.0	69.42062	(242, 23)	616350.0	4172000.0	62.74013	(34, 3)
616600.0	4172000.0	59.88126	(352, 7)	614600.0	4172250.0	23.06172	(353, 11)
614850.0	4172250.0	20.78525	(238, 7)	615100.0	4172250.0	27.12725	(225, 7)
615350.0	4172250.0	25.44841	(60, 22)	615600.0	4172250.0	37.17386	(133, 23)
615850.0	4172250.0	62.78665	(135, 22)	616100.0	4172250.0	65.48778	(178, 23)
616350.0	4172250.0	58.68007	(83, 7)	616600.0	4172250.0	64.97823	(213, 23)
614600.0	4172500.0	21.83945	(10, 18)	614850.0	4172500.0	20.24908	(8, 10)
615100.0	4172500.0	22.52004	(96, 15)	615350.0	4172500.0	28.79409	(192, 8)
615600.0	4172500.0	37.26053	(119, 1)	615850.0	4172500.0	54.48302	(214, 1)
616100.0	4172500.0	67.21131	(135, 22)	616350.0	4172500.0	64.30499	(10, 22)
616600.0	4172500.0	61.59439	(196, 1)	616170.0	4172880.0	61.46907	(214, 1)
612700.0	4170900.0	13.26153	(132, 8)	612700.0	4170800.0	16.13026	(132, 8)
612700.0	4170700.0	14.74400	(344, 1)	612700.0	4170600.0	16.71856	(333, 18)
612700.0	4170500.0	16.52620	(2, 12)	612700.0	4170400.0	18.20657	(364, 14)
612700.0	4170300.0	21.36873	(364, 14)	612700.0	4170200.0	17.82421	(12, 15)
612700.0	4170100.0	16.70097	(12, 16)	615900.0	4169300.0	47.85751	(14, 8)
613450.0	4172500.0	12.25521	(2, 10)	613450.0	4172400.0	13.95492	(130, 7)

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2ND HI
1-HF
SGROU

1

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MatDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
613450.0	4172300.0	14.93459	(134, 7)	613450.0	4172200.0	14.26443	(322, 10)
613450.0	4172100.0	15.39898	(359, 9)	613450.0	4172000.0	14.92572	(35, 19)
613450.0	4171900.0	15.16741	(121, 7)	613450.0	4171800.0	17.40375	(108, 21)
613450.0	4171700.0	19.85598	(103, 20)	613450.0	4171600.0	19.43748	(58, 20)
613450.0	4171500.0	19.41955	(63, 19)	613450.0	4171400.0	19.86177	(52, 19)
613450.0	4171300.0	23.16904	(13, 19)	613450.0	4171200.0	21.72399	(334, 9)
613450.0	4171100.0	24.19184	(9, 9)	613450.0	4171000.0	22.42930	(24, 10)
613000.0	4172800.0	11.91166	(130, 7)	613000.0	4172600.0	11.26127	(322, 10)
613000.0	4172400.0	12.89711	(2, 10)	613000.0	4172200.0	13.62663	(121, 7)
613000.0	4172000.0	14.48124	(108, 21)	613000.0	4171800.0	15.71783	(40, 19)
613000.0	4171600.0	16.92152	(63, 19)	613000.0	4171400.0	17.11580	(13, 19)
613000.0	4171200.0	17.31002	(21, 9)	613000.0	4171000.0	16.25173	(9, 9)
613000.0	4170800.0	17.25228	(317, 10)	613200.0	4170800.0	19.47265	(287, 18)
613400.0	4170800.0	21.91622	(15, 10)	613600.0	4170800.0	27.57763	(350, 9)
613800.0	4170800.0	41.38178	(364, 14)	614000.0	4170800.0	45.45988	(12, 15)
614200.0	4170800.0	47.27650	(321, 14)	614400.0	4170800.0	57.11070	(86, 13)
614600.0	4170800.0	59.02764	(337, 15)	614850.0	4170800.0	77.77950	(304, 10)
615100.0	4170800.0	69.48455	(168, 9)	615350.0	4170800.0	62.61212	(22, 10)
615600.0	4170800.0	66.09573	(179, 22)	615850.0	4170800.0	58.17580	(30, 22)
613000.0	4170400.0	23.64866	(364, 14)	613200.0	4170400.0	23.52243	(12, 15)
613400.0	4170400.0	22.55075	(12, 15)	613600.0	4170400.0	24.24613	(44, 19)
613800.0	4170400.0	30.00875	(350, 17)	614000.0	4170400.0	37.34349	(57, 10)
614200.0	4170400.0	37.51333	(337, 16)	614400.0	4170400.0	40.79610	(109, 17)
614600.0	4170400.0	71.18565	(305, 1)	614850.0	4170400.0	75.72460	(276, 2)
615100.0	4170400.0	60.87612	(274, 23)	615350.0	4170400.0	62.75404	(22, 6)
615600.0	4170400.0	65.99720	(291, 4)	615850.0	4170400.0	53.25710	(363, 9)
608000.0	4166500.0	4.18640	(357, 3)	611000.0	4165500.0	25.35430	(271, 7)
613000.0	4167500.0	37.74593	(10, 23)	615000.0	4166500.0	30.79176	(111, 23)
616000.0	4169500.0	65.79596	(342, 6)	616000.0	4172500.0	53.71467	(266, 2)
614000.0	4174500.0	18.69777	(2, 11)	616000.0	4175500.0	38.94470	(130, 3)
614000.0	4177500.0	27.82783	(20, 7)	606000.0	4174500.0	4.63683	(117, 3)
609000.0	4174500.0	13.48895	(78, 6)	612000.0	4174500.0	7.23692	(116, 7)
609000.0	4173500.0	4.44090	(93, 4)	610000.0	4175500.0	5.49835	(78, 5)
610000.0	4173500.0	9.27607	(84, 3)	608000.0	4177500.0	7.80757	(320, 6)
611000.0	4177500.0	7.22716	(317, 7)	606000.0	4171500.0	3.24184	(106, 6)
606000.0	4172500.0	2.95264	(330, 19)	607000.0	4172500.0	3.93024	(54, 10)
607000.0	4171500.0	3.70804	(106, 6)	608000.0	4172500.0	4.61839	(324, 10)
608000.0	4171500.0	4.37865	(92, 23)	609000.0	4172500.0	7.61582	(278, 3)

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END HIGH
1-HR
SGROUP#

1

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MatDat for 11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
610000.0	4172500.0	10.88867	(360, 22)	610000.0	4171500.0	6.80201	(81, 2)
612000.0	4171500.0	10.68325	(354, 19)	611000.0	4169500.0	12.13951	(322, 9)
612000.0	4170500.0	13.02376	(270, 22)	611000.0	4172500.0	7.67591	(82, 3)
613000.0	4172500.0	13.58657	(322, 10)	612000.0	4173500.0	8.29333	(134, 7)
608000.0	4169500.0	5.38656	(270, 22)	609000.0	4169500.0	6.47132	(14, 9)
610000.0	4169500.0	7.19565	(280, 18)	608000.0	4170500.0	4.69636	(5, 5)
609000.0	4170500.0	6.07575	(110, 7)	606000.0	4170500.0	3.15253	(99, 8)
607000.0	4170500.0	3.98177	(182, 1)	606000.0	4169500.0	3.17543	(103, 4)
607000.0	4169500.0	3.97416	(339, 21)	606000.0	4168500.0	3.79418	(317, 10)
614600.0	4170150.0	76.86200	(338, 22)	614850.0	4170150.0	65.45782	(344, 7)
615100.0	4170150.0	68.12195	(345, 4)	615350.0	4170150.0	68.66325	(98, 2)
614850.0	4169900.0	55.62298	(104, 8)	615100.0	4169900.0	54.56422	(346, 20)
615350.0	4169900.0	70.40919	(32, 24)	615900.0	4172900.0	55.19802	(293, 20)
616400.0	4172900.0	56.63241	(11, 1)	616700.0	4172900.0	56.78035	(347, 1)
617000.0	4172900.0	51.43782	(189, 23)	614900.0	4171050.0	81.55836	(263, 18)
615000.0	4171050.0	119.52796	(23, 17)	615100.0	4171050.0	100.65696	(129, 19)
615200.0	4171050.0	100.26048	(198, 19)	615300.0	4171050.0	87.71676	(93, 19)
614900.0	4171150.0	143.08110	(140, 18)	615000.0	4171150.0	121.15640	(241, 15)
615100.0	4171150.0	97.47270	(265, 18)	615200.0	4171150.0	92.49188	(192, 17)
615300.0	4171150.0	87.77609	(192, 17)	614900.0	4171250.0	93.04057	(67, 13)
615000.0	4171250.0	93.32629	(187, 18)	615200.0	4171250.0	85.21178	(219, 19)
615300.0	4171250.0	77.64188	(193, 20)	614900.0	4171350.0	72.10586	(188, 18)
615000.0	4171350.0	74.00474	(237, 17)	615100.0	4171350.0	72.15337	(244, 19)
615200.0	4171350.0	67.76396	(107, 8)	615300.0	4171350.0	60.31154	(187, 11)
614900.0	4171450.0	56.15818	(70, 16)	615000.0	4171450.0	60.47078	(249, 16)
615100.0	4171450.0	62.61696	(248, 15)	615200.0	4171450.0	58.82912	(196, 19)
615300.0	4171450.0	52.92825	(94, 9)				

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MAX 50
1-HF
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1

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat for11/0 ***

* 50 MAXIMUM 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 101,

RANK	CON.	HOUR	DAY	X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	RANK	CON.	HOUR	DAY	X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)
1	144.60629	14	161	614900.0	4171150.0	26	117.46622	13	98	615000.0	4171050.0
2	143.08110	18	140	614900.0	4171150.0	27	117.44331	17	127	614900.0	4171150.0
3	142.69449	17	175	614900.0	4171150.0	28	117.42278	15	193	615000.0	4171150.0
4	139.49359	16	261	614900.0	4171150.0	29	117.41708	17	133	614900.0	4171150.0
5	138.09889	18	199	614900.0	4171150.0	30	116.65618	15	257	615000.0	4171150.0
6	137.17754	16	159	614900.0	4171150.0	31	116.36988	18	262	615000.0	4171150.0
7	135.80916	18	131	614900.0	4171150.0	32	116.08452	18	159	615000.0	4171150.0
8	134.44725	15	227	614900.0	4171150.0	33	115.16592	11	88	615000.0	4171150.0
9	132.93102	15	311	614900.0	4171150.0	34	114.68445	15	209	615000.0	4171150.0
10	132.59151	16	257	614900.0	4171150.0	35	114.43250	15	157	614900.0	4171150.0
11	132.27829	17	245	614900.0	4171150.0	36	114.34786	18	240	615000.0	4171150.0
12	131.14857	17	120	614900.0	4171150.0	37	114.26112	17	199	614900.0	4171150.0
13	129.97536	17	209	614900.0	4171150.0	38	114.23914	17	169	614900.0	4171150.0
14	129.62514	13	164	614900.0	4171150.0	39	113.78949	18	209	614900.0	4171150.0
15	125.70329	14	241	614900.0	4171150.0	40	113.77151	17	200	614900.0	4171150.0
16	124.86116	14	23	615000.0	4171050.0	41	113.66320	17	258	614900.0	4171150.0
17	123.17307	18	177	614900.0	4171150.0	42	113.64846	16	133	614900.0	4171150.0
18	122.52013	12	164	614900.0	4171150.0	43	113.33364	17	240	614900.0	4171150.0
19	121.43512	16	239	615000.0	4171150.0	44	113.30264	15	236	614900.0	4171150.0
20	121.15640	15	241	615000.0	4171150.0	45	113.17585	15	250	614900.0	4171150.0
21	119.52796	17	23	615000.0	4171050.0	46	112.85616	16	116	614900.0	4171150.0
22	119.05231	17	254	615000.0	4171150.0	47	112.71546	17	132	614900.0	4171150.0
23	118.99391	13	172	615000.0	4171150.0	48	112.61237	17	88	614900.0	4171150.0
24	118.70755	18	250	615000.0	4171150.0	49	112.11277	13	310	614850.0	4171000.0
25	118.52599	17	283	615000.0	4171150.0	50	112.06430	14	23	615100.0	4171000.0

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'N'-DAY
347 DAY

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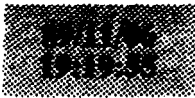
2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

* 347-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	- X -	- Y -	CON.	- X -	- Y -	CON.
614600.0	4171000.0	15.94932	614850.0	4171000.0	13.83267	615100.0	4171000.0	3.89800
615350.0	4171000.0	2.17488	615600.0	4171000.0	1.50355	615850.0	4171000.0	1.31711
616100.0	4171000.0	1.06745	616350.0	4171000.0	0.84612	616600.0	4171000.0	0.68942
614600.0	4171250.0	96.86160	614850.0	4171250.0	130.97684	615100.0	4171250.0	14.15176
615350.0	4171250.0	5.38050	615600.0	4171250.0	2.99539	615850.0	4171250.0	1.92603
616100.0	4171250.0	1.34430	616350.0	4171250.0	0.99780	616600.0	4171250.0	0.77936
614600.0	4171500.0	9.77993	614850.0	4171500.0	8.28209	615100.0	4171500.0	17.96525
615350.0	4171500.0	9.40157	615600.0	4171500.0	5.06470	615850.0	4171500.0	2.65426
616100.0	4171500.0	1.67530	616350.0	4171500.0	1.19496	616600.0	4171500.0	0.91455
614600.0	4171750.0	3.57740	614850.0	4171750.0	3.73786	615100.0	4171750.0	5.32352
615350.0	4171750.0	7.20225	615600.0	4171750.0	5.74823	615850.0	4171750.0	3.73784
616100.0	4171750.0	2.49390	616350.0	4171750.0	1.81610	616600.0	4171750.0	1.24512
614600.0	4172000.0	1.95455	614850.0	4172000.0	2.38418	615100.0	4172000.0	2.30966
615350.0	4172000.0	4.41722	615600.0	4172000.0	4.35838	615850.0	4172000.0	3.78529
616100.0	4172000.0	2.75230	616350.0	4172000.0	2.07286	616600.0	4172000.0	1.53556
614600.0	4172250.0	1.23989	614850.0	4172250.0	1.70724	615100.0	4172250.0	1.48117
615350.0	4172250.0	2.25089	615600.0	4172250.0	3.05181	615850.0	4172250.0	2.87972
616100.0	4172250.0	2.63487	616350.0	4172250.0	2.16374	616600.0	4172250.0	1.70188
614600.0	4172500.0	0.99795	614850.0	4172500.0	1.21945	615100.0	4172500.0	1.12911
615350.0	4172500.0	1.32623	615600.0	4172500.0	1.89837	615850.0	4172500.0	2.17547
616100.0	4172500.0	2.07890	616350.0	4172500.0	1.97247	616600.0	4172500.0	1.74163
616170.0	4172880.0	1.48175	612700.0	4170900.0	0.93716	612700.0	4170800.0	0.84858
612700.0	4170700.0	0.83961	612700.0	4170600.0	0.82878	612700.0	4170500.0	0.76385
612700.0	4170400.0	0.71037	612700.0	4170300.0	0.67034	612700.0	4170200.0	0.58165
612700.0	4170100.0	0.51944	615900.0	4169300.0	0.30189	613450.0	4172500.0	1.02972
613450.0	4172400.0	1.29870	613450.0	4172300.0	1.53340	613450.0	4172200.0	1.74877
613450.0	4172100.0	2.15131	613450.0	4172000.0	2.42407	613450.0	4171900.0	2.87935
613450.0	4171800.0	3.57028	613450.0	4171700.0	4.34226	613450.0	4171600.0	4.40937
613450.0	4171500.0	4.93494	613450.0	4171400.0	3.65092	613450.0	4171300.0	3.44043
613450.0	4171200.0	3.26636	613450.0	4171100.0	2.70099	613450.0	4171000.0	2.14127
613000.0	4172800.0	0.82772	613000.0	4172600.0	0.99201	613000.0	4172400.0	1.34468
613000.0	4172200.0	1.62664	613000.0	4172000.0	2.25971	613000.0	4171800.0	2.67741
613000.0	4171600.0	3.05124	613000.0	4171400.0	2.05751	613000.0	4171200.0	1.89258
613000.0	4171000.0	1.33723	613000.0	4170800.0	1.12244	613200.0	4170800.0	1.33284
613400.0	4170800.0	1.65862	613600.0	4170800.0	2.02083	613800.0	4170800.0	2.53422
614000.0	4170800.0	2.82660	614200.0	4170800.0	3.68360	614400.0	4170800.0	4.95169
614600.0	4170800.0	4.94509	614850.0	4170800.0	4.31531	615100.0	4170800.0	2.16411
615350.0	4170800.0	1.04716	615600.0	4170800.0	1.20524	615850.0	4170800.0	0.86425



S

2

SGROUT

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

* 347-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	- X -	- Y -	CON.	- X -	- Y -	CON.
613000.0	4170400.0	0.85549	613200.0	4170400.0	0.88161	613400.0	4170400.0	1.05590
613600.0	4170400.0	1.15909	613800.0	4170400.0	1.27805	614000.0	4170400.0	1.68352
614200.0	4170400.0	1.78831	614400.0	4170400.0	1.53829	614600.0	4170400.0	2.02669
614850.0	4170400.0	1.48358	615100.0	4170400.0	1.87371	615350.0	4170400.0	0.77073
615600.0	4170400.0	0.63779	615850.0	4170400.0	0.33598	608000.0	4166500.0	0.04875
611000.0	4165500.0	0.10250	613000.0	4167500.0	0.13344	615000.0	4166500.0	0.08909
616000.0	4169500.0	0.25391	616000.0	4172500.0	2.04395	614000.0	4174500.0	0.21935
616000.0	4175500.0	0.19634	614000.0	4177500.0	0.12716	606000.0	4174500.0	0.25296
609000.0	4174500.0	0.45019	612000.0	4174500.0	0.24861	609000.0	4173500.0	0.29457
610000.0	4175500.0	0.19664	610000.0	4173500.0	0.59880	608000.0	4177500.0	0.17071
611000.0	4177500.0	0.13491	606000.0	4171500.0	0.09723	606000.0	4172500.0	0.08896
607000.0	4172500.0	0.13168	607000.0	4171500.0	0.12378	608000.0	4172500.0	0.20889
608000.0	4171500.0	0.16312	609000.0	4172500.0	0.52265	610000.0	4172500.0	0.88312
610000.0	4171500.0	0.34039	612000.0	4171500.0	0.90190	611000.0	4169500.0	0.27909
612000.0	4170500.0	0.52410	611000.0	4172500.0	0.70577	613000.0	4172500.0	1.17298
612000.0	4173500.0	0.46170	608000.0	4169500.0	0.11072	609000.0	4169500.0	0.14322
610000.0	4169500.0	0.18883	608000.0	4170500.0	0.12107	609000.0	4170500.0	0.17002
606000.0	4170500.0	0.07162	607000.0	4170500.0	0.09503	606000.0	4169500.0	0.05957
607000.0	4169500.0	0.07832	606000.0	4168500.0	0.05652	614600.0	4170150.0	1.37235
614850.0	4170150.0	1.00280	615100.0	4170150.0	1.19254	615350.0	4170150.0	0.86874
614850.0	4169900.0	0.68840	615100.0	4169900.0	0.63330	615350.0	4169900.0	0.83179
615900.0	4172900.0	1.37041	616400.0	4172900.0	1.35858	616700.0	4172900.0	1.39040
617000.0	4172900.0	1.24511	614900.0	4171050.0	10.04298	615000.0	4171050.0	6.58859
615100.0	4171050.0	5.69270	615200.0	4171050.0	3.58844	615300.0	4171050.0	2.82673
614900.0	4171150.0	29.33482	615000.0	4171150.0	16.95002	615100.0	4171150.0	10.58830
615200.0	4171150.0	7.21048	615300.0	4171150.0	5.20707	614900.0	4171250.0	75.45522
615000.0	4171250.0	27.60182	615200.0	4171250.0	8.88314	615300.0	4171250.0	6.24629
614900.0	4171350.0	44.60034	615000.0	4171350.0	36.99990	615100.0	4171350.0	21.61379
615200.0	4171350.0	13.48971	615300.0	4171350.0	8.35043	614900.0	4171450.0	15.49394
615000.0	4171450.0	22.71590	615100.0	4171450.0	21.21890	615200.0	4171450.0	15.06084
615300.0	4171450.0	10.41088						

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HIGH
1-HR
SGROUP#

2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat for11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
614600.0	4171000.0	2266.63403	(42, 7)	614850.0	4171000.0	2636.16357	(18, 4)
615100.0	4171000.0	1500.10437	(353, 5)	615350.0	4171000.0	897.55042	(18, 7)
615600.0	4171000.0	624.23846	(2, 24)	615850.0	4171000.0	446.54010	(360, 20)
616100.0	4171000.0	337.52960	(2, 2)	616350.0	4171000.0	267.52957	(97, 2)
616600.0	4171000.0	224.33049	(97, 2)	614600.0	4171250.0	2685.99243	(157, 2)
614850.0	4171250.0	3520.00708	(237, 23)	615100.0	4171250.0	1712.11060	(75, 5)
615350.0	4171250.0	822.80701	(83, 5)	615600.0	4171250.0	633.82635	(167, 2)
615850.0	4171250.0	371.96808	(167, 2)	616100.0	4171250.0	220.54547	(259, 23)
616350.0	4171250.0	168.59544	(158, 24)	616600.0	4171250.0	132.93748	(158, 24)
614600.0	4171500.0	1160.92908	(183, 5)	614850.0	4171500.0	1348.63940	(185, 23)
615100.0	4171500.0	1128.46570	(51, 21)	615350.0	4171500.0	785.81390	(34, 3)
615600.0	4171500.0	573.09753	(6, 3)	615850.0	4171500.0	388.42004	(266, 1)
616100.0	4171500.0	318.17535	(112, 1)	616350.0	4171500.0	252.72420	(75, 5)
616600.0	4171500.0	208.00883	(2, 20)	614600.0	4171750.0	668.30664	(248, 2)
614850.0	4171750.0	649.30695	(139, 3)	615100.0	4171750.0	622.78284	(61, 24)
615350.0	4171750.0	575.13617	(135, 22)	615600.0	4171750.0	485.85724	(237, 23)
615850.0	4171750.0	377.23203	(321, 6)	616100.0	4171750.0	308.09033	(352, 7)
616350.0	4171750.0	321.75934	(96, 8)	616600.0	4171750.0	213.97685	(96, 8)
614600.0	4172000.0	427.96747	(360, 23)	614850.0	4172000.0	476.11496	(186, 2)
615100.0	4172000.0	469.54938	(232, 2)	615350.0	4172000.0	453.74323	(185, 6)
615600.0	4172000.0	402.32840	(135, 22)	615850.0	4172000.0	329.86594	(27, 4)
616100.0	4172000.0	274.00790	(120, 22)	616350.0	4172000.0	236.95256	(321, 6)
616600.0	4172000.0	203.59888	(55, 3)	614600.0	4172250.0	300.36304	(22, 5)
614850.0	4172250.0	364.07654	(58, 6)	615100.0	4172250.0	351.37112	(6, 4)
615350.0	4172250.0	372.91382	(327, 6)	615600.0	4172250.0	326.11160	(30, 6)
615850.0	4172250.0	284.96838	(135, 22)	616100.0	4172250.0	240.21228	(10, 22)
616350.0	4172250.0	215.35556	(237, 23)	616600.0	4172250.0	188.35239	(213, 23)
614600.0	4172500.0	241.20210	(79, 20)	614850.0	4172500.0	273.52252	(262, 6)
615100.0	4172500.0	296.93320	(213, 1)	615350.0	4172500.0	293.99057	(302, 3)
615600.0	4172500.0	257.65628	(61, 24)	615850.0	4172500.0	250.49435	(335, 23)
616100.0	4172500.0	218.08919	(135, 22)	616350.0	4172500.0	189.67754	(30, 2)
616600.0	4172500.0	167.27698	(196, 1)	616170.0	4172880.0	178.31183	(335, 23)
612700.0	4170900.0	134.84093	(279, 24)	612700.0	4170800.0	134.67384	(155, 24)
612700.0	4170700.0	143.24355	(64, 8)	612700.0	4170600.0	143.14212	(119, 21)
612700.0	4170500.0	139.46814	(205, 6)	612700.0	4170400.0	137.63733	(267, 4)
612700.0	4170300.0	235.66008	(186, 7)	612700.0	4170200.0	361.92917	(186, 7)
612700.0	4170100.0	375.77277	(186, 7)	615900.0	4169300.0	157.18930	(53, 23)
613450.0	4172500.0	121.02008	(54, 9)	613450.0	4172400.0	124.25539	(191, 6)

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HIGH
1-HF
SGROU

2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MatDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
613450.0	4172300.0	132.10930	(62, 4)	613450.0	4172200.0	143.17552	(54, 23)
613450.0	4172100.0	151.17621	(185, 4)	613450.0	4172000.0	163.32613	(131, 24)
613450.0	4171900.0	177.04837	(57, 20)	613450.0	4171800.0	186.07610	(157, 2)
613450.0	4171700.0	207.75662	(185, 24)	613450.0	4171600.0	222.81731	(87, 22)
613450.0	4171500.0	238.92511	(281, 21)	613450.0	4171400.0	249.01585	(281, 22)
613450.0	4171300.0	324.17603	(260, 8)	613450.0	4171200.0	291.14902	(157, 4)
613450.0	4171100.0	295.56058	(277, 4)	613450.0	4171000.0	300.04004	(279, 24)
613000.0	4172800.0	79.94226	(191, 6)	613000.0	4172600.0	87.16216	(294, 20)
613000.0	4172400.0	97.57433	(185, 4)	613000.0	4172200.0	106.82139	(26, 24)
613000.0	4172000.0	124.04328	(137, 5)	613000.0	4171800.0	137.25067	(20, 20)
613000.0	4171600.0	151.90924	(56, 1)	613000.0	4171400.0	209.62608	(260, 8)
613000.0	4171200.0	172.80501	(157, 4)	613000.0	4171000.0	174.72151	(155, 21)
613000.0	4170800.0	187.92177	(320, 20)	613200.0	4170800.0	220.17975	(15, 24)
613400.0	4170800.0	270.18445	(119, 21)	613600.0	4170800.0	342.67117	(205, 6)
613800.0	4170800.0	451.53204	(183, 23)	614000.0	4170800.0	942.23663	(186, 7)
614200.0	4170800.0	796.72528	(354, 4)	614400.0	4170800.0	1036.78137	(165, 22)
614600.0	4170800.0	1383.42896	(312, 23)	614850.0	4170800.0	1485.96118	(320, 5)
615100.0	4170800.0	1088.33826	(242, 1)	615350.0	4170800.0	771.64514	(42, 20)
615600.0	4170800.0	562.48926	(86, 19)	615850.0	4170800.0	420.54187	(231, 22)
613000.0	4170400.0	332.10629	(186, 7)	613200.0	4170400.0	495.77911	(186, 7)
613400.0	4170400.0	401.13818	(186, 7)	613600.0	4170400.0	292.30075	(95, 6)
613800.0	4170400.0	359.50156	(81, 1)	614000.0	4170400.0	449.84589	(295, 1)
614200.0	4170400.0	483.95233	(258, 5)	614400.0	4170400.0	615.29034	(7, 7)
614600.0	4170400.0	681.61774	(20, 24)	614850.0	4170400.0	684.94550	(322, 4)
615100.0	4170400.0	615.28979	(176, 22)	615350.0	4170400.0	504.26740	(359, 24)
615600.0	4170400.0	372.73340	(291, 4)	615850.0	4170400.0	324.44052	(19, 3)
608000.0	4166500.0	13.40088	(354, 4)	611000.0	4165500.0	39.43846	(56, 5)
613000.0	4167500.0	78.31749	(340, 3)	615000.0	4166500.0	58.01268	(18, 20)
616000.0	4169500.0	189.62889	(22, 6)	616000.0	4172500.0	227.07326	(11, 1)
614000.0	4174500.0	56.82080	(101, 1)	616000.0	4175500.0	70.62868	(12, 24)
614000.0	4177500.0	44.29422	(12, 23)	606000.0	4174500.0	15.66894	(7, 20)
609000.0	4174500.0	38.76505	(213, 3)	612000.0	4174500.0	118.17216	(54, 9)
609000.0	4173500.0	15.60630	(27, 8)	610000.0	4175500.0	20.75619	(1, 8)
610000.0	4173500.0	41.69055	(137, 23)	608000.0	4177500.0	22.61053	(191, 6)
611000.0	4177500.0	27.19591	(82, 21)	606000.0	4171500.0	38.67907	(260, 8)
606000.0	4172500.0	30.75977	(260, 8)	607000.0	4172500.0	22.40800	(260, 8)
607000.0	4171500.0	46.85283	(260, 8)	608000.0	4172500.0	14.53773	(133, 5)
608000.0	4171500.0	58.04075	(260, 8)	609000.0	4172500.0	32.48621	(136, 22)

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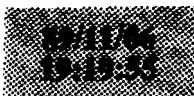
HIGH
1-HR
SGROUP#

2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MatDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
610000.0	4172500.0	49.26263	(55, 23)	610000.0	4171500.0	95.88988	(260, 8)
612000.0	4171500.0	148.75658	(260, 8)	611000.0	4169500.0	163.22121	(186, 7)
612000.0	4170500.0	93.32298	(315, 8)	611000.0	4172500.0	39.78804	(187, 1)
613000.0	4172500.0	94.23370	(184, 22)	612000.0	4173500.0	43.11578	(28, 2)
608000.0	4169500.0	20.00977	(315, 8)	609000.0	4169500.0	26.09460	(119, 21)
610000.0	4169500.0	37.29681	(3, 8)	608000.0	4170500.0	16.61385	(155, 21)
609000.0	4170500.0	26.27506	(97, 8)	606000.0	4170500.0	8.62610	(39, 7)
607000.0	4170500.0	12.72098	(78, 19)	606000.0	4169500.0	27.91232	(97, 8)
607000.0	4169500.0	25.23270	(97, 8)	606000.0	4168500.0	9.37248	(77, 3)
614600.0	4170150.0	458.55005	(16, 21)	614850.0	4170150.0	477.09531	(344, 7)
615100.0	4170150.0	450.98203	(8, 6)	615350.0	4170150.0	398.84515	(14, 8)
614850.0	4169900.0	360.88428	(18, 20)	615100.0	4169900.0	345.49323	(320, 5)
615350.0	4169900.0	319.07294	(32, 24)	615900.0	4172900.0	194.51875	(242, 3)
616400.0	4172900.0	161.07997	(62, 1)	616700.0	4172900.0	137.19363	(51, 21)
617000.0	4172900.0	127.36875	(27, 4)	614900.0	4171050.0	2657.31323	(248, 6)
615000.0	4171050.0	2023.94751	(353, 5)	615100.0	4171050.0	1589.56689	(89, 20)
615200.0	4171050.0	1199.26184	(18, 7)	615300.0	4171050.0	1003.03186	(6, 5)
614900.0	4171150.0	3693.74048	(2, 24)	615000.0	4171150.0	2438.09424	(265, 24)
615100.0	4171150.0	1803.09827	(17, 4)	615200.0	4171150.0	1401.66418	(8, 2)
615300.0	4171150.0	1034.85168	(8, 2)	614900.0	4171250.0	3087.07275	(55, 3)
615000.0	4171250.0	2217.70264	(18, 5)	615200.0	4171250.0	1343.87012	(2, 20)
615300.0	4171250.0	1021.01385	(83, 5)	614900.0	4171350.0	2183.87036	(185, 22)
615000.0	4171350.0	1815.33838	(237, 23)	615100.0	4171350.0	1388.88281	(321, 6)
615200.0	4171350.0	1219.59961	(6, 3)	615300.0	4171350.0	938.44031	(201, 22)
614900.0	4171450.0	1576.61609	(327, 6)	615000.0	4171450.0	1432.85925	(266, 2)
615100.0	4171450.0	1217.79382	(27, 4)	615200.0	4171450.0	1052.76794	(120, 22)
615300.0	4171450.0	826.21875	(321, 6)				



2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
614600.0	4171000.0	2211.27637	(105, 7)	614850.0	4171000.0	2636.16357	(363, 7)
615100.0	4171000.0	1446.95801	(180, 5)	615350.0	4171000.0	897.55042	(239, 3)
615600.0	4171000.0	406.38013	(6, 5)	615850.0	4171000.0	405.94553	(318, 8)
616100.0	4171000.0	337.52960	(295, 20)	616350.0	4171000.0	262.06613	(265, 24)
616600.0	4171000.0	222.77367	(17, 4)	614600.0	4171250.0	2685.99219	(231, 3)
614850.0	4171250.0	3502.16553	(53, 6)	615100.0	4171250.0	1712.11060	(204, 22)
615350.0	4171250.0	822.80701	(237, 21)	615600.0	4171250.0	633.82635	(354, 6)
615850.0	4171250.0	371.96808	(354, 6)	616100.0	4171250.0	220.54547	(285, 20)
616350.0	4171250.0	149.66557	(249, 20)	616600.0	4171250.0	129.27617	(249, 20)
614600.0	4171500.0	1160.92883	(28, 24)	614850.0	4171500.0	1348.63892	(360, 24)
615100.0	4171500.0	1128.46570	(188, 5)	615350.0	4171500.0	785.81390	(214, 22)
615600.0	4171500.0	573.09753	(30, 3)	615850.0	4171500.0	365.00980	(353, 21)
616100.0	4171500.0	270.43307	(75, 5)	616350.0	4171500.0	252.72420	(204, 22)
616600.0	4171500.0	150.73433	(252, 20)	614600.0	4171750.0	668.30658	(252, 4)
614850.0	4171750.0	649.30695	(248, 7)	615100.0	4171750.0	617.41815	(28, 23)
615350.0	4171750.0	575.13611	(346, 1)	615600.0	4171750.0	421.93039	(53, 6)
615850.0	4171750.0	368.21790	(34, 3)	616100.0	4171750.0	280.29172	(247, 22)
616350.0	4171750.0	247.03401	(263, 23)	616600.0	4171750.0	196.30057	(353, 21)
614600.0	4172000.0	417.07846	(253, 23)	614850.0	4172000.0	476.11496	(216, 4)
615100.0	4172000.0	469.54935	(60, 5)	615350.0	4172000.0	453.74319	(255, 2)
615600.0	4172000.0	402.32840	(346, 1)	615850.0	4172000.0	314.76724	(196, 1)
616100.0	4172000.0	274.00790	(242, 23)	616350.0	4172000.0	215.86438	(34, 3)
616600.0	4172000.0	182.65445	(352, 7)	614600.0	4172250.0	273.05731	(242, 2)
614850.0	4172250.0	364.07651	(352, 3)	615100.0	4172250.0	351.37112	(53, 2)
615350.0	4172250.0	355.35327	(194, 4)	615600.0	4172250.0	326.11160	(315, 1)
615850.0	4172250.0	284.96838	(346, 1)	616100.0	4172250.0	240.21228	(178, 23)
616350.0	4172250.0	177.72986	(53, 6)	616600.0	4172250.0	188.35239	(289, 3)
614600.0	4172500.0	241.20209	(55, 5)	614850.0	4172500.0	273.52252	(293, 24)
615100.0	4172500.0	296.93314	(345, 6)	615350.0	4172500.0	293.99054	(194, 6)
615600.0	4172500.0	231.57071	(242, 3)	615850.0	4172500.0	232.15263	(182, 24)
616100.0	4172500.0	218.08919	(346, 1)	616350.0	4172500.0	189.67754	(232, 3)
616600.0	4172500.0	167.27698	(236, 24)	616170.0	4172880.0	162.10165	(214, 1)
612700.0	4170900.0	134.84093	(286, 22)	612700.0	4170800.0	134.67384	(177, 24)
612700.0	4170700.0	143.24355	(132, 23)	612700.0	4170600.0	143.14212	(122, 2)
612700.0	4170500.0	139.46814	(278, 5)	612700.0	4170400.0	137.63733	(320, 8)
612700.0	4170300.0	132.11705	(17, 24)	612700.0	4170200.0	125.13213	(279, 22)
612700.0	4170100.0	124.00505	(5, 2)	615900.0	4169300.0	135.30423	(14, 8)
613450.0	4172500.0	113.04311	(55, 7)	613450.0	4172400.0	124.25539	(230, 22)

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2ND HIGH
1-HR.
SGROUP#

2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
613450.0	4172300.0	132.10930	(63, 3)	613450.0	4172200.0	143.17552	(55, 4)
613450.0	4172100.0	151.17621	(195, 2)	613450.0	4172000.0	163.32613	(167, 4)
613450.0	4171900.0	177.04837	(182, 6)	613450.0	4171800.0	186.07608	(78, 2)
613450.0	4171700.0	207.75658	(27, 8)	613450.0	4171600.0	222.81731	(280, 23)
613450.0	4171500.0	238.92509	(64, 2)	613450.0	4171400.0	249.01584	(63, 22)
613450.0	4171300.0	277.73782	(5, 6)	613450.0	4171200.0	291.14902	(169, 4)
613450.0	4171100.0	295.56058	(316, 2)	613450.0	4171000.0	300.04004	(286, 22)
613000.0	4172800.0	79.94226	(230, 22)	613000.0	4172600.0	87.16215	(242, 6)
613000.0	4172400.0	97.57433	(195, 2)	613000.0	4172200.0	106.82139	(32, 4)
613000.0	4172000.0	124.04328	(157, 2)	613000.0	4171800.0	137.25067	(27, 24)
613000.0	4171600.0	151.90924	(56, 23)	613000.0	4171400.0	167.74759	(244, 4)
613000.0	4171200.0	172.80501	(169, 4)	613000.0	4171000.0	174.72151	(157, 6)
613000.0	4170800.0	187.92174	(354, 5)	613200.0	4170800.0	220.17975	(38, 5)
613400.0	4170800.0	270.18445	(122, 2)	613600.0	4170800.0	342.67117	(278, 5)
613800.0	4170800.0	451.53195	(14, 5)	614000.0	4170800.0	593.53223	(58, 24)
614200.0	4170800.0	784.35651	(95, 6)	614400.0	4170800.0	1036.78125	(35, 22)
614600.0	4170800.0	1376.20959	(132, 24)	614850.0	4170800.0	1247.75891	(8, 8)
615100.0	4170800.0	1065.37000	(277, 23)	615350.0	4170800.0	751.02216	(361, 24)
615600.0	4170800.0	498.63107	(360, 4)	615850.0	4170800.0	275.95938	(89, 20)
613000.0	4170400.0	176.01707	(15, 5)	613200.0	4170400.0	206.62105	(58, 24)
613400.0	4170400.0	244.91757	(59, 22)	613600.0	4170400.0	292.30072	(357, 23)
613800.0	4170400.0	350.66797	(278, 1)	614000.0	4170400.0	415.68365	(35, 22)
614200.0	4170400.0	449.21198	(15, 22)	614400.0	4170400.0	615.29034	(108, 4)
614600.0	4170400.0	681.61774	(32, 5)	614850.0	4170400.0	660.41589	(6, 7)
615100.0	4170400.0	615.28979	(292, 23)	615350.0	4170400.0	497.34586	(22, 6)
615600.0	4170400.0	333.16980	(197, 6)	615850.0	4170400.0	181.61502	(361, 24)
608000.0	4166500.0	12.25116	(95, 6)	611000.0	4165500.0	39.43846	(64, 6)
613000.0	4167500.0	69.61408	(10, 23)	615000.0	4166500.0	55.79607	(111, 23)
616000.0	4169500.0	189.62889	(342, 6)	616000.0	4172500.0	227.07326	(266, 2)
614000.0	4174500.0	56.82080	(290, 7)	616000.0	4175500.0	70.62868	(130, 3)
614000.0	4177500.0	44.29422	(20, 7)	606000.0	4174500.0	15.66894	(9, 23)
609000.0	4174500.0	38.76505	(216, 1)	612000.0	4174500.0	32.32657	(190, 1)
609000.0	4173500.0	15.60630	(59, 4)	610000.0	4175500.0	29.75619	(32, 7)
610000.0	4173500.0	41.69054	(57, 7)	608000.0	4177500.0	22.61053	(230, 22)
611000.0	4177500.0	27.19591	(185, 3)	606000.0	4171500.0	8.95939	(279, 2)
606000.0	4172500.0	6.97886	(60, 8)	607000.0	4172500.0	10.11065	(63, 22)
607000.0	4171500.0	11.19571	(22, 2)	608000.0	4172500.0	14.53773	(291, 23)
608000.0	4171500.0	14.95150	(57, 22)	609000.0	4172500.0	32.48621	(190, 2)

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27
2ND H
1-HI
SGRO

2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
610000.0	4172500.0	49.26263	(80, 21)	610000.0	4171500.0	31.31989	(109, 22)
612000.0	4171500.0	75.45969	(244, 4)	611000.0	4169500.0	62.57827	(128, 23)
612000.0	4170500.0	93.32297	(15, 24)	611000.0	4172500.0	39.78803	(62, 8)
613000.0	4172500.0	94.23370	(243, 24)	612000.0	4173500.0	43.11578	(116, 24)
608000.0	4169500.0	20.00977	(15, 24)	609000.0	4169500.0	26.09460	(122, 2)
610000.0	4169500.0	37.29681	(16, 6)	608000.0	4170500.0	16.61385	(157, 6)
609000.0	4170500.0	24.72448	(58, 7)	606000.0	4170500.0	8.62610	(277, 4)
607000.0	4170500.0	12.72098	(190, 6)	606000.0	4169500.0	23.68318	(63, 9)
607000.0	4169500.0	21.40956	(63, 9)	606000.0	4168500.0	9.37248	(116, 2)
614600.0	4170150.0	458.55005	(27, 22)	614850.0	4170150.0	397.57938	(270, 1)
615100.0	4170150.0	450.98203	(258, 24)	615350.0	4170150.0	398.84515	(98, 2)
614850.0	4169900.0	280.40964	(344, 7)	615100.0	4169900.0	249.99115	(191, 5)
615350.0	4169900.0	319.07294	(271, 6)	615900.0	4172900.0	194.51875	(293, 20)
616400.0	4172900.0	147.85889	(11, 1)	616700.0	4172900.0	137.19363	(188, 5)
617000.0	4172900.0	115.78978	(189, 23)	614900.0	4171050.0	2404.39551	(263, 7)
615000.0	4171050.0	2018.79260	(180, 5)	615100.0	4171050.0	1589.56689	(188, 24)
615200.0	4171050.0	1199.26184	(239, 3)	615300.0	4171050.0	905.82709	(2, 24)
614900.0	4171150.0	3217.60083	(123, 2)	615000.0	4171150.0	2351.96240	(97, 2)
615100.0	4171150.0	1703.59521	(8, 2)	615200.0	4171150.0	1254.12146	(17, 4)
615300.0	4171150.0	922.35687	(183, 22)	614900.0	4171250.0	2789.98267	(352, 7)
615000.0	4171250.0	2044.70984	(266, 1)	615200.0	4171250.0	1275.44312	(83, 5)
615300.0	4171250.0	1021.01385	(237, 21)	614900.0	4171350.0	2183.87012	(2, 21)
615000.0	4171350.0	1735.44031	(53, 6)	615100.0	4171350.0	1204.95068	(55, 3)
615200.0	4171350.0	1219.59961	(30, 3)	615300.0	4171350.0	899.94562	(353, 21)
614900.0	4171450.0	1506.22961	(278, 23)	615000.0	4171450.0	1432.85913	(11, 1)
615100.0	4171450.0	1108.36829	(178, 23)	615200.0	4171450.0	1052.76794	(242, 23)
615300.0	4171450.0	660.92853	(214, 22)				

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MAX 50
1-HR
SGROUP#

2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1986 MetDat jor11/0 ***

* 50 MAXIMUM 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,

RANK	CON.	HOUR	DAY	X OR RANGE (METERS)	Y(METERS) OR DIRECTION (DEGREES)	RANK	CON.	HOUR	DAY	X OR RANGE (METERS)	Y(METERS) OR DIRECTION (DEGREES)
1	3693.74048	24	2	614900.0	4171150.0	26	2685.99219	3	231	614600.0	4171250.0
2	3520.00708	23	237	614850.0	4171250.0	27	2685.99170	24	306	614600.0	4171250.0
3	3502.16553	6	53	614850.0	4171250.0	28	2685.99170	2	168	614600.0	4171250.0
4	3428.32910	24	236	614850.0	4171250.0	29	2685.99170	5	167	614600.0	4171250.0
5	3428.32886	1	196	614850.0	4171250.0	30	2685.99170	5	137	614600.0	4171250.0
6	3218.16919	4	27	614850.0	4171250.0	31	2685.99170	2	78	614600.0	4171250.0
7	3217.60083	2	123	614900.0	4171150.0	32	2685.99121	1	361	614600.0	4171250.0
8	3124.43579	20	360	614900.0	4171150.0	33	2685.99121	21	346	614600.0	4171250.0
9	3087.07275	3	55	614900.0	4171250.0	34	2685.99121	1	331	614600.0	4171250.0
10	2950.74805	23	215	614850.0	4171250.0	35	2685.99121	7	93	614600.0	4171250.0
11	2950.74731	1	3	614850.0	4171250.0	36	2679.58301	4	71	614850.0	4171250.0
12	2950.74707	5	359	614850.0	4171250.0	37	2673.14673	22	224	614900.0	4171150.0
13	2928.33154	23	193	614850.0	4171250.0	38	2657.31323	6	248	614900.0	4171050.0
14	2926.35913	5	6	614900.0	4171150.0	39	2637.17651	21	194	614850.0	4171250.0
15	2925.60864	23	189	614850.0	4171250.0	40	2637.17603	6	192	614850.0	4171250.0
16	2918.47168	1	88	614850.0	4171250.0	41	2636.16357	7	363	614850.0	4171000.0
17	2879.04224	24	242	614850.0	4171250.0	42	2636.16357	4	18	614850.0	4171000.0
18	2879.04224	7	213	614850.0	4171250.0	43	2598.20825	22	193	614900.0	4171150.0
19	2856.94116	21	189	614850.0	4171250.0	44	2594.93701	5	178	614600.0	4171250.0
20	2840.39624	8	318	614900.0	4171150.0	45	2594.93677	22	295	614600.0	4171250.0
21	2797.30518	21	178	614850.0	4171250.0	46	2594.93677	2	63	614600.0	4171250.0
22	2789.98267	7	352	614900.0	4171250.0	47	2594.93652	6	292	614600.0	4171250.0
23	2745.83984	7	83	614850.0	4171250.0	48	2594.93652	7	287	614600.0	4171250.0
24	2722.68896	6	321	614900.0	4171250.0	49	2594.93652	2	286	614600.0	4171250.0
25	2685.99243	2	157	614600.0	4171250.0	50	2594.93652	1	117	614600.0	4171250.0

ISCST RESULTS

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lw ra:jor Job: llisc87b.fin.iou Date: Tue Nov 7 08:20:57 1989

lw ra:jor Job: llisc87b.fin.iou Date: Tue Nov 7 08:20:57 1989

lw ra:jor Job: llisc87b.fin.iou Date: Tue Nov 7 08:20:57 1989

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat jor11/0 ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)	ISW(1) = 1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)	ISW(2) = 1
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)	ISW(3) = 1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)	ISW(4) = 1
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)	ISW(5) = 1
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)	ISW(6) = 1
COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)	
WITH THE FOLLOWING TIME PERIODS:	
HOURLY (YES=1,NO=0)	ISW(7) = 1
2-HOUR (YES=1,NO=0)	ISW(8) = 0
3-HOUR (YES=1,NO=0)	ISW(9) = 0
4-HOUR (YES=1,NO=0)	ISW(10) = 0
6-HOUR (YES=1,NO=0)	ISW(11) = 0
8-HOUR (YES=1,NO=0)	ISW(12) = 0
12-HOUR (YES=1,NO=0)	ISW(13) = 0
24-HOUR (YES=1,NO=0)	ISW(14) = 0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)	ISW(15) = 1
PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE	
SPECIFIED BY ISW(7) THROUGH ISW(14):	
DAILY TABLES (YES=1,NO=0)	ISW(16) = 0
HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)	ISW(17) = 1
MAXIMUM 50 TABLES (YES=1,NO=0)	ISW(18) = 1
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)	ISW(19) = 1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)	ISW(20) = 0
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(21) = 1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)	ISW(22) = 1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)	ISW(23) = 0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)	ISW(24) = 1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)	ISW(25) = 2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)	ISW(26) = 1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)	ISW(27) = 1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)	ISW(28) = 2
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)	ISW(29) = 2
DEBUG OPTION CHOSEN (YES=1,NO=2)	ISW(30) = 2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)	ISW(31) = 0
NUMBER OF INPUT SOURCES	NSOURC = 2
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)	NGROUP = 2
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)	IPERD = 0
NUMBER OF X (RANGE) GRID VALUES	NXPNTS = 0
NUMBER OF Y (THETA) GRID VALUES	NYPNTS = 0
NUMBER OF DISCRETE RECEPTORS	NXWYPT = 205
SOURCE EMISSION RATE UNITS CONVERSION FACTOR	TK = .10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED	ZR = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA	IMET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	DECAY = 0.000000E+00
SURFACE STATION NO.	ISS = 1
YEAR OF SURFACE DATA	ISY = 87
UPPER AIR STATION NO.	IUS = 23230
YEAR OF UPPER AIR DATA	IUY = 87
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE	ITAP = 3
ALLOCATED DATA STORAGE	LIMIT = 500000 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 4461 WORDS

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STABILITY CATEGORY	WIND SPEED CATEGORY					
	1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

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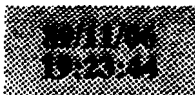
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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat jor11/0 ***

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY					
	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01



*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat jor11/0 ***

*** X,Y COORDINATES OF DISCRETE RECEPTORS ***
(METERS)

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat jor11/0 ***

* ELEVATION HEIGHTS IN METERS *
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	ELE.	- X -	- Y -	ELE.	- X -	- Y -	ELE.
614600.0	4171000.0	196.59639	614850.0	4171000.0	199.64439	615100.0	4171000.0	204.21640
615350.0	4171000.0	216.40843	615600.0	4171000.0	231.64845	615850.0	4171000.0	237.74446
616100.0	4171000.0	243.84048	616350.0	4171000.0	249.93649	616600.0	4171000.0	249.93649
614600.0	4171250.0	193.54839	614850.0	4171250.0	195.68199	615100.0	4171250.0	199.03479
615350.0	4171250.0	202.69240	615600.0	4171250.0	213.36041	615850.0	4171250.0	222.50444
616100.0	4171250.0	228.60045	616350.0	4171250.0	228.60045	616600.0	4171250.0	237.74446
614600.0	4171500.0	190.50038	614850.0	4171500.0	192.02438	615100.0	4171500.0	195.07239
615350.0	4171500.0	195.07239	615600.0	4171500.0	200.25400	615850.0	4171500.0	205.74040
616100.0	4171500.0	220.37083	616350.0	4171500.0	230.12445	616600.0	4171500.0	230.12445
614600.0	4171750.0	188.36678	614850.0	4171750.0	187.45236	615100.0	4171750.0	189.28117
615350.0	4171750.0	192.93878	615600.0	4171750.0	196.59639	615850.0	4171750.0	201.16840
616100.0	4171750.0	214.88443	616350.0	4171750.0	211.83641	616600.0	4171750.0	219.15163
614600.0	4172000.0	185.92836	614850.0	4172000.0	187.45236	615100.0	4172000.0	188.97638
615350.0	4172000.0	192.63397	615600.0	4172000.0	196.59639	615850.0	4172000.0	201.16840
616100.0	4172000.0	207.26440	616350.0	4172000.0	209.70282	616600.0	4172000.0	214.88443
614600.0	4172250.0	183.48996	614850.0	4172250.0	187.45236	615100.0	4172250.0	190.50038
615350.0	4172250.0	195.07239	615600.0	4172250.0	199.64439	615850.0	4172250.0	205.74040
616100.0	4172250.0	208.17880	616350.0	4172250.0	213.05562	616600.0	4172250.0	222.50444
614600.0	4172500.0	183.48996	614850.0	4172500.0	185.92836	615100.0	4172500.0	189.58597
615350.0	4172500.0	194.46278	615600.0	4172500.0	199.64439	615850.0	4172500.0	204.21640
616100.0	4172500.0	207.26440	616350.0	4172500.0	213.36041	616600.0	4172500.0	218.54202
616170.0	4172880.0	210.31241	612700.0	4170900.0	178.91795	612700.0	4170800.0	179.83235
612700.0	4170700.0	181.05156	612700.0	4170600.0	181.66116	612700.0	4170500.0	181.66116
612700.0	4170400.0	181.35635	612700.0	4170300.0	180.74675	612700.0	4170200.0	180.44196
612700.0	4170100.0	180.13716	615900.0	4169300.0	226.16205	613450.0	4172500.0	173.73634
613450.0	4172400.0	174.65074	613450.0	4172300.0	175.26035	613450.0	4172200.0	176.17474
613450.0	4172100.0	176.78435	613450.0	4172000.0	177.69875	613450.0	4171900.0	178.61314
613450.0	4171800.0	179.52756	613450.0	4171700.0	180.74675	613450.0	4171600.0	181.66116
613450.0	4171500.0	182.57556	613450.0	4171400.0	183.48996	613450.0	4171300.0	185.31877
613450.0	4171200.0	186.23317	613450.0	4171100.0	187.45236	613450.0	4171000.0	187.75717
613000.0	4172800.0	169.77394	613000.0	4172600.0	170.68834	613000.0	4172400.0	172.21234
613000.0	4172200.0	173.43153	613000.0	4172000.0	175.56514	613000.0	4171800.0	177.69875
613000.0	4171600.0	179.22275	613000.0	4171400.0	180.44196	613000.0	4171200.0	181.05156
613000.0	4171000.0	181.35635	613000.0	4170800.0	184.09956	613200.0	4170800.0	185.31877
613400.0	4170800.0	187.45236	613600.0	4170800.0	189.58597	613800.0	4170800.0	192.02438
614000.0	4170800.0	193.85318	614200.0	4170800.0	195.68199	614400.0	4170800.0	195.37718
614600.0	4170800.0	196.90118	614850.0	4170800.0	203.60680	615100.0	4170800.0	212.14122
615350.0	4170800.0	249.93649	615600.0	4170800.0	249.93649	615850.0	4170800.0	250.85089

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat jor11/0 ***

* ELEVATION HEIGHTS IN METERS *
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	ELE.	- X -	- Y -	ELE.	- X -	- Y -	ELE.
613000.0	4170400.0	184.40436	613200.0	4170400.0	186.53796	613400.0	4170400.0	188.36678
613600.0	4170400.0	189.89078	613800.0	4170400.0	193.24358	614000.0	4170400.0	196.90118
614200.0	4170400.0	195.07239	614400.0	4170400.0	200.55879	614600.0	4170400.0	206.04521
614850.0	4170400.0	225.55244	615100.0	4170400.0	238.65887	615350.0	4170400.0	237.74446
615600.0	4170400.0	256.03250	615850.0	4170400.0	274.32053	608000.0	4166500.0	142.95148
611000.0	4165500.0	274.01575	613000.0	4167500.0	206.95961	615000.0	4166500.0	323.08862
616000.0	4169500.0	225.85724	616000.0	4172500.0	203.91161	614000.0	4174500.0	167.94513
616000.0	4175500.0	280.11176	614000.0	4177500.0	238.04927	606000.0	4174500.0	152.09550
609000.0	4174500.0	182.88036	612000.0	4174500.0	157.88670	609000.0	4173500.0	142.95148
610000.0	4175500.0	152.09550	610000.0	4173500.0	170.99313	608000.0	4177500.0	170.99313
611000.0	4177500.0	167.94513	606000.0	4171500.0	131.06425	606000.0	4172500.0	124.96825
607000.0	4172500.0	134.11226	607000.0	4171500.0	136.85547	608000.0	4172500.0	142.03708
608000.0	4171500.0	142.95148	609000.0	4172500.0	164.89713	610000.0	4172500.0	177.08914
610000.0	4171500.0	157.88670	612000.0	4171500.0	170.99313	611000.0	4169500.0	177.08914
612000.0	4170500.0	177.08914	611000.0	4172500.0	161.84912	613000.0	4172500.0	171.90753
612000.0	4173500.0	161.84912	608000.0	4169500.0	152.09550	609000.0	4169500.0	157.88670
610000.0	4169500.0	166.11633	608000.0	4170500.0	145.99948	609000.0	4170500.0	155.14351
606000.0	4170500.0	131.06425	607000.0	4170500.0	139.90347	606000.0	4169500.0	130.14986
607000.0	4169500.0	139.90347	606000.0	4168500.0	132.89307	614600.0	4170150.0	207.26440
614850.0	4170150.0	219.45644	615100.0	4170150.0	237.74446	615350.0	4170150.0	251.46049
614850.0	4169900.0	219.45644	615100.0	4169900.0	225.55244	615350.0	4169900.0	240.79248
615900.0	4172900.0	204.21640	616400.0	4172900.0	219.45644	616700.0	4172900.0	225.55244
617000.0	4172900.0	240.79248	614900.0	4171050.0	201.16840	615000.0	4171050.0	202.08279
615100.0	4171050.0	202.08279	615200.0	4171050.0	205.74040	615300.0	4171050.0	208.78841
614900.0	4171150.0	199.64439	615000.0	4171150.0	200.55879	615100.0	4171150.0	200.55879
615200.0	4171150.0	202.69240	615300.0	4171150.0	206.35001	614900.0	4171250.0	196.59639
615000.0	4171250.0	198.12039	615200.0	4171250.0	201.16840	615300.0	4171250.0	202.08279
614900.0	4171350.0	195.07239	615000.0	4171350.0	195.98679	615100.0	4171350.0	197.20599
615200.0	4171350.0	198.12039	615300.0	4171350.0	197.51079	614900.0	4171450.0	193.54839
615000.0	4171450.0	194.46278	615100.0	4171450.0	195.68199	615200.0	4171450.0	195.68199
615300.0	4171450.0	195.37718						

*** SOURCE DATA ***

D-41

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MatDat jor11/0 ***

* 350-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	- X -	- Y -	CON.	- X -	- Y -	CON.
614600.0	4171000.0	1.45218	614850.0	4171000.0	0.52010	615100.0	4171000.0	0.78055
615350.0	4171000.0	1.03251	615600.0	4171000.0	0.95518	615850.0	4171000.0	0.77960
616100.0	4171000.0	0.61021	616350.0	4171000.0	0.50056	616600.0	4171000.0	0.42767
614600.0	4171250.0	0.12935	614850.0	4171250.0	4.24853	615100.0	4171250.0	3.88217
615350.0	4171250.0	2.26960	615600.0	4171250.0	1.64712	615850.0	4171250.0	1.16044
616100.0	4171250.0	0.86258	616350.0	4171250.0	0.66926	616600.0	4171250.0	0.53604
614600.0	4171500.0	0.04659	614850.0	4171500.0	0.11998	615100.0	4171500.0	2.57739
615350.0	4171500.0	1.86542	615600.0	4171500.0	1.42595	615850.0	4171500.0	1.30306
616100.0	4171500.0	1.05299	616350.0	4171500.0	0.85712	616600.0	4171500.0	0.68569
614600.0	4171750.0	0.05117	614850.0	4171750.0	0.07594	615100.0	4171750.0	0.33641
615350.0	4171750.0	1.62682	615600.0	4171750.0	1.60981	615850.0	4171750.0	1.32998
616100.0	4171750.0	1.16657	616350.0	4171750.0	0.92206	616600.0	4171750.0	0.76208
614600.0	4172000.0	0.05613	614850.0	4172000.0	0.08193	615100.0	4172000.0	0.15327
615350.0	4172000.0	0.65840	615600.0	4172000.0	1.47796	615850.0	4172000.0	1.56953
616100.0	4172000.0	1.46018	616350.0	4172000.0	1.06835	616600.0	4172000.0	0.84728
614600.0	4172250.0	0.05713	614850.0	4172250.0	0.09028	615100.0	4172250.0	0.14728
615350.0	4172250.0	0.37263	615600.0	4172250.0	0.98574	615850.0	4172250.0	1.64511
616100.0	4172250.0	1.50199	616350.0	4172250.0	1.27076	616600.0	4172250.0	0.97688
614600.0	4172500.0	0.06207	614850.0	4172500.0	0.08645	615100.0	4172500.0	0.14863
615350.0	4172500.0	0.25296	615600.0	4172500.0	0.56422	615850.0	4172500.0	1.04316
616100.0	4172500.0	1.35900	616350.0	4172500.0	1.20892	616600.0	4172500.0	1.07426
616170.0	4172880.0	0.86454	612700.0	4170900.0	0.09340	612700.0	4170800.0	0.10521
612700.0	4170700.0	0.12603	612700.0	4170600.0	0.14132	612700.0	4170500.0	0.14611
612700.0	4170400.0	0.13690	612700.0	4170300.0	0.12359	612700.0	4170200.0	0.11224
612700.0	4170100.0	0.10571	615900.0	4169300.0	0.14448	613450.0	4172500.0	0.06669
613450.0	4172400.0	0.06951	613450.0	4172300.0	0.07350	613450.0	4172200.0	0.08911
613450.0	4172100.0	0.11179	613450.0	4172000.0	0.13138	613450.0	4171900.0	0.14918
613450.0	4171800.0	0.16478	613450.0	4171700.0	0.16507	613450.0	4171600.0	0.15126
613450.0	4171500.0	0.13763	613450.0	4171400.0	0.13226	613450.0	4171300.0	0.13903
613450.0	4171200.0	0.14402	613450.0	4171100.0	0.15155	613450.0	4171000.0	0.14887
613000.0	4172800.0	0.06551	613000.0	4172600.0	0.07568	613000.0	4172400.0	0.11163
613000.0	4172200.0	0.13557	613000.0	4172000.0	0.16773	613000.0	4171800.0	0.16350
613000.0	4171600.0	0.14419	613000.0	4171400.0	0.12184	613000.0	4171200.0	0.12000
613000.0	4171000.0	0.10740	613000.0	4170800.0	0.14380	613200.0	4170800.0	0.16669
613400.0	4170800.0	0.20374	613600.0	4170800.0	0.24629	613800.0	4170800.0	0.28992
614000.0	4170800.0	0.33875	614200.0	4170800.0	0.44494	614400.0	4170800.0	0.69963
614600.0	4170800.0	0.84615	614850.0	4170800.0	0.68403	615100.0	4170800.0	0.41701
615350.0	4170800.0	0.36468	615600.0	4170800.0	0.32194	615850.0	4170800.0	0.36733

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat for 11/0 ***

* 350-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	- X -	- Y -	CON.	- X -	- Y -	CON.
613000.0	4170400.0	0.14871	613200.0	4170400.0	0.15924	613400.0	4170400.0	0.17451
613600.0	4170400.0	0.18736	613800.0	4170400.0	0.24262	614000.0	4170400.0	0.34320
614200.0	4170400.0	0.40659	614400.0	4170400.0	0.45224	614600.0	4170400.0	0.53304
614850.0	4170400.0	0.49872	615100.0	4170400.0	0.31884	615350.0	4170400.0	0.24809
615600.0	4170400.0	0.24198	615850.0	4170400.0	0.19100	608000.0	4166500.0	0.01643
611000.0	4165500.0	0.05933	613000.0	4167500.0	0.13119	615000.0	4166500.0	0.08866
616000.0	4169500.0	0.14101	616000.0	4172500.0	1.18400	614000.0	4174500.0	0.03581
616000.0	4175500.0	0.16982	614000.0	4177500.0	0.07457	606000.0	4174500.0	0.07231
609000.0	4174500.0	0.18059	612000.0	4174500.0	0.04003	609000.0	4173500.0	0.05685
610000.0	4175500.0	0.03973	610000.0	4173500.0	0.16128	608000.0	4177500.0	0.06172
611000.0	4177500.0	0.03274	606000.0	4171500.0	0.02044	606000.0	4172500.0	0.01863
607000.0	4172500.0	0.02655	607000.0	4171500.0	0.02455	608000.0	4172500.0	0.03777
608000.0	4171500.0	0.03008	609000.0	4172500.0	0.09827	610000.0	4172500.0	0.18301
610000.0	4171500.0	0.05172	612000.0	4171500.0	0.08539	611000.0	4169500.0	0.07738
612000.0	4170500.0	0.10094	611000.0	4172500.0	0.10153	613000.0	4172500.0	0.09549
612000.0	4173500.0	0.05649	608000.0	4169500.0	0.03278	609000.0	4169500.0	0.04416
610000.0	4169500.0	0.06023	608000.0	4170500.0	0.02565	609000.0	4170500.0	0.03315
606000.0	4170500.0	0.01703	607000.0	4170500.0	0.02165	606000.0	4169500.0	0.01598
607000.0	4169500.0	0.02199	606000.0	4168500.0	0.02093	614600.0	4170150.0	0.42683
614850.0	4170150.0	0.38973	615100.0	4170150.0	0.31465	615350.0	4170150.0	0.24796
614850.0	4169900.0	0.32644	615100.0	4169900.0	0.25360	615350.0	4169900.0	0.20028
615900.0	4172900.0	0.60700	616400.0	4172900.0	0.96144	616700.0	4172900.0	0.93388
617000.0	4172900.0	0.82881	614900.0	4171050.0	0.74276	615000.0	4171050.0	1.04070
615100.0	4171050.0	1.31948	615200.0	4171050.0	1.59488	615300.0	4171050.0	1.59627
614900.0	4171150.0	5.72021	615000.0	4171150.0	5.36265	615100.0	4171150.0	3.85527
615200.0	4171150.0	2.97987	615300.0	4171150.0	2.46875	614900.0	4171250.0	5.12950
615000.0	4171250.0	4.97422	615200.0	4171250.0	3.11906	615300.0	4171250.0	2.48786
614900.0	4171350.0	2.67369	615000.0	4171350.0	3.91541	615100.0	4171350.0	3.31367
615200.0	4171350.0	2.62121	615300.0	4171350.0	2.08998	614900.0	4171450.0	0.41462
615000.0	4171450.0	2.29895	615100.0	4171450.0	2.92770	615200.0	4171450.0	2.52201
615300.0	4171450.0	1.98566						

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
614600.0	4171000.0	78.09205	(277, 10)	614850.0	4171000.0	92.44807	(30, 17)
615100.0	4171000.0	103.01331	(310, 17)	615350.0	4171000.0	86.42819	(162, 20)
615600.0	4171000.0	70.92250	(341, 3)	615850.0	4171000.0	76.19742	(186, 22)
616100.0	4171000.0	63.14819	(236, 21)	616350.0	4171000.0	61.78822	(236, 21)
616600.0	4171000.0	67.07824	(18, 4)	616600.0	4171250.0	54.09046	(349, 13)
614850.0	4171250.0	91.00182	(257, 8)	615100.0	4171250.0	87.01625	(199, 20)
615350.0	4171250.0	75.15473	(68, 19)	615600.0	4171250.0	77.95850	(159, 22)
615850.0	4171250.0	75.09510	(170, 2)	616100.0	4171250.0	71.64722	(284, 22)
616350.0	4171250.0	68.28394	(41, 5)	616600.0	4171250.0	68.86162	(41, 5)
614600.0	4171500.0	39.86753	(362, 16)	614850.0	4171500.0	39.18244	(331, 12)
615100.0	4171500.0	87.78095	(167, 7)	615350.0	4171500.0	53.47712	(244, 8)
615600.0	4171500.0	50.43121	(240, 19)	615850.0	4171500.0	65.74496	(221, 1)
616100.0	4171500.0	69.73925	(192, 3)	616350.0	4171500.0	69.04858	(177, 4)
616600.0	4171500.0	69.02034	(8, 7)	614600.0	4171750.0	30.06289	(304, 11)
614850.0	4171750.0	30.07650	(323, 10)	615100.0	4171750.0	35.79336	(335, 16)
615350.0	4171750.0	62.85613	(167, 7)	615600.0	4171750.0	54.01108	(257, 8)
615850.0	4171750.0	45.55009	(46, 6)	616100.0	4171750.0	72.62234	(14, 6)
616350.0	4171750.0	68.53603	(248, 4)	616600.0	4171750.0	61.82413	(361, 6)
614600.0	4172000.0	26.91031	(361, 11)	614850.0	4172000.0	39.60515	(323, 10)
615100.0	4172000.0	31.81996	(207, 7)	615350.0	4172000.0	34.35125	(363, 10)
615600.0	4172000.0	47.01248	(167, 7)	615850.0	4172000.0	41.58031	(199, 6)
616100.0	4172000.0	67.27949	(20, 5)	616350.0	4172000.0	69.05108	(308, 23)
616600.0	4172000.0	67.67787	(334, 1)	614600.0	4172250.0	22.64150	(263, 19)
614850.0	4172250.0	36.62852	(323, 10)	615100.0	4172250.0	23.48672	(28, 13)
615350.0	4172250.0	32.53373	(349, 10)	615600.0	4172250.0	39.67200	(54, 21)
615850.0	4172250.0	63.77029	(27, 24)	616100.0	4172250.0	68.07896	(249, 1)
616350.0	4172250.0	67.81830	(43, 1)	616600.0	4172250.0	65.95624	(324, 4)
614600.0	4172500.0	19.60076	(263, 19)	614850.0	4172500.0	32.01056	(323, 10)
615100.0	4172500.0	23.46889	(134, 8)	615350.0	4172500.0	29.70176	(283, 9)
615600.0	4172500.0	37.26624	(37, 6)	615850.0	4172500.0	56.94861	(354, 20)
616100.0	4172500.0	68.00370	(8, 8)	616350.0	4172500.0	65.25179	(361, 4)
616600.0	4172500.0	61.68341	(323, 7)	616170.0	4172880.0	65.01189	(354, 20)
612700.0	4170900.0	23.58921	(342, 16)	612700.0	4170800.0	18.79626	(342, 16)
612700.0	4170700.0	16.41445	(303, 18)	612700.0	4170600.0	20.37366	(22, 15)
612700.0	4170500.0	29.11560	(22, 15)	612700.0	4170400.0	25.70387	(22, 15)
612700.0	4170300.0	14.80595	(79, 8)	612700.0	4170200.0	15.18441	(300, 17)
612700.0	4170100.0	14.98980	(84, 19)	615900.0	4169300.0	63.34134	(25, 20)
613450.0	4172500.0	14.25101	(103, 21)	613450.0	4172400.0	14.07391	(10, 19)



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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MatDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
613450.0	4172300.0	12.92448	(237, 7)	613450.0	4172200.0	16.45267	(271, 19)
613450.0	4172100.0	16.02801	(251, 19)	613450.0	4172000.0	16.15496	(37, 19)
613450.0	4171900.0	17.48149	(351, 10)	613450.0	4171800.0	18.92361	(338, 10)
613450.0	4171700.0	19.61505	(58, 19)	613450.0	4171600.0	17.34916	(341, 18)
613450.0	4171500.0	20.00793	(56, 19)	613450.0	4171400.0	21.47728	(34, 10)
613450.0	4171300.0	22.75537	(321, 10)	613450.0	4171200.0	23.13569	(311, 18)
613450.0	4171100.0	23.89321	(278, 8)	613450.0	4171000.0	27.32216	(342, 16)
613000.0	4172800.0	12.06742	(10, 19)	613000.0	4172600.0	12.56123	(237, 7)
613000.0	4172400.0	12.81338	(251, 19)	613000.0	4172200.0	13.99297	(32, 19)
613000.0	4172000.0	14.53690	(338, 10)	613000.0	4171800.0	15.48489	(48, 10)
613000.0	4171600.0	15.67774	(59, 19)	613000.0	4171400.0	17.09568	(58, 10)
613000.0	4171200.0	17.33065	(311, 18)	613000.0	4171000.0	20.83997	(342, 16)
613000.0	4170800.0	19.29982	(303, 18)	613200.0	4170800.0	21.33367	(303, 18)
613400.0	4170800.0	30.11645	(22, 15)	613600.0	4170800.0	49.13670	(22, 15)
613800.0	4170800.0	45.05357	(22, 15)	614000.0	4170800.0	41.46417	(40, 16)
614200.0	4170800.0	50.20556	(295, 17)	614400.0	4170800.0	57.29934	(90, 17)
614600.0	4170800.0	65.85159	(330, 16)	614850.0	4170800.0	100.57262	(83, 18)
615100.0	4170800.0	103.92097	(109, 7)	615350.0	4170800.0	70.78839	(212, 19)
615600.0	4170800.0	59.64590	(312, 10)	615850.0	4170800.0	67.20415	(228, 24)
613000.0	4170400.0	18.34069	(300, 17)	613200.0	4170400.0	21.48081	(84, 19)
613400.0	4170400.0	19.89384	(345, 17)	613600.0	4170400.0	25.08509	(365, 17)
613800.0	4170400.0	29.26771	(321, 18)	614000.0	4170400.0	35.02670	(90, 18)
614200.0	4170400.0	37.86586	(11, 10)	614400.0	4170400.0	52.93865	(13, 17)
614600.0	4170400.0	62.18050	(87, 6)	614850.0	4170400.0	84.02679	(21, 22)
615100.0	4170400.0	62.13478	(20, 17)	615350.0	4170400.0	63.60926	(30, 6)
615600.0	4170400.0	73.95833	(82, 20)	615850.0	4170400.0	69.00610	(235, 23)
608000.0	4166500.0	4.17510	(70, 8)	611000.0	4165500.0	24.64254	(321, 1)
613000.0	4167500.0	41.21613	(66, 7)	615000.0	4166500.0	32.25470	(8, 6)
616000.0	4169500.0	66.32201	(30, 6)	616000.0	4172500.0	54.00871	(41, 4)
614000.0	4174500.0	9.44274	(11, 7)	616000.0	4175500.0	38.74891	(303, 21)
614000.0	4177500.0	25.31430	(14, 5)	606000.0	4174500.0	4.68034	(48, 10)
609000.0	4174500.0	13.59751	(30, 7)	612000.0	4174500.0	7.24816	(63, 11)
609000.0	4173500.0	5.09910	(48, 10)	610000.0	4175500.0	5.50697	(103, 6)
610000.0	4173500.0	9.28326	(60, 1)	608000.0	4177500.0	7.85095	(30, 5)
611000.0	4177500.0	7.18757	(321, 8)	606000.0	4171500.0	3.24184	(68, 24)
606000.0	4172500.0	2.95797	(213, 7)	607000.0	4172500.0	3.49259	(213, 7)
607000.0	4171500.0	3.70804	(68, 24)	608000.0	4172500.0	4.31880	(81, 4)
608000.0	4171500.0	4.40027	(79, 4)	609000.0	4172500.0	7.69021	(79, 5)

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat for 11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
610000.0	4172500.0	10.89707	(18, 21)	610000.0	4171500.0	6.79551	(269, 6)
612000.0	4171500.0	11.82648	(58, 10)	611000.0	4169500.0	11.11591	(79, 8)
612000.0	4170500.0	12.35973	(89, 2)	611000.0	4172500.0	8.52131	(48, 10)
613000.0	4172500.0	12.73623	(272, 19)	612000.0	4173500.0	8.31098	(237, 7)
608000.0	4169500.0	4.97514	(89, 2)	609000.0	4169500.0	8.40379	(22, 15)
610000.0	4169500.0	13.64302	(22, 15)	608000.0	4170500.0	8.20583	(342, 16)
609000.0	4170500.0	11.15871	(342, 16)	606000.0	4170500.0	4.39821	(342, 16)
607000.0	4170500.0	5.97302	(342, 16)	606000.0	4169500.0	5.40754	(342, 16)
607000.0	4169500.0	4.22841	(342, 15)	606000.0	4168500.0	6.64235	(22, 15)
614600.0	4170150.0	65.85838	(346, 1)	614850.0	4170150.0	65.11588	(360, 18)
615100.0	4170150.0	75.87877	(23, 18)	615350.0	4170150.0	76.08463	(358, 22)
614850.0	4169900.0	68.66791	(8, 6)	615100.0	4169900.0	68.55319	(259, 22)
615350.0	4169900.0	71.45481	(28, 22)	615900.0	4172900.0	56.50541	(15, 7)
616400.0	4172900.0	56.72047	(106, 23)	616700.0	4172900.0	52.96640	(362, 2)
617000.0	4172900.0	55.01677	(356, 1)	614900.0	4171050.0	109.26041	(108, 12)
615000.0	4171050.0	122.24262	(82, 13)	615100.0	4171050.0	99.55768	(302, 17)
615200.0	4171050.0	107.07773	(342, 9)	615300.0	4171050.0	92.29564	(312, 18)
614900.0	4171150.0	146.96785	(225, 14)	615000.0	4171150.0	120.69407	(222, 19)
615100.0	4171150.0	96.95824	(221, 19)	615200.0	4171150.0	94.89653	(286, 18)
615300.0	4171150.0	92.00825	(129, 8)	614900.0	4171250.0	94.12144	(168, 15)
615000.0	4171250.0	92.46529	(130, 19)	615200.0	4171250.0	86.46609	(284, 18)
615300.0	4171250.0	78.66544	(68, 19)	614900.0	4171350.0	88.63769	(167, 7)
615000.0	4171350.0	129.62631	(257, 8)	615100.0	4171350.0	73.95229	(161, 20)
615200.0	4171350.0	69.83981	(94, 9)	615300.0	4171350.0	59.90188	(196, 20)
614900.0	4171450.0	56.17506	(73, 9)	615000.0	4171450.0	105.50497	(167, 7)
615100.0	4171450.0	77.24085	(247, 8)	615200.0	4171450.0	74.29807	(257, 8)
615300.0	4171450.0	53.12016	(234, 8)				

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MatDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
614600.0	4171000.0	77.19027	(152, 18)	614850.0	4171000.0	71.82309	(163, 19)
615100.0	4171000.0	96.35719	(82, 13)	615350.0	4171000.0	83.83260	(66, 18)
615600.0	4171000.0	68.41312	(180, 4)	615850.0	4171000.0	74.82898	(248, 24)
616100.0	4171000.0	54.58031	(186, 22)	616350.0	4171000.0	54.33456	(18, 4)
616600.0	4171000.0	66.04498	(309, 6)	614600.0	4171250.0	53.14326	(349, 15)
614850.0	4171250.0	88.32966	(197, 18)	615100.0	4171250.0	86.67924	(249, 9)
615350.0	4171250.0	74.26850	(177, 20)	615600.0	4171250.0	77.33006	(159, 1)
615850.0	4171250.0	74.96619	(178, 5)	616100.0	4171250.0	65.26890	(159, 21)
616350.0	4171250.0	63.56144	(284, 22)	616600.0	4171250.0	56.43114	(317, 5)
614600.0	4171500.0	33.71586	(43, 12)	614850.0	4171500.0	38.16216	(28, 13)
615100.0	4171500.0	58.08778	(233, 8)	615350.0	4171500.0	49.69263	(43, 10)
615600.0	4171500.0	48.07461	(64, 17)	615850.0	4171500.0	65.74496	(230, 5)
616100.0	4171500.0	69.53269	(243, 7)	616350.0	4171500.0	64.38860	(199, 4)
616600.0	4171500.0	67.87587	(216, 4)	614600.0	4171750.0	29.63843	(361, 11)
614850.0	4171750.0	30.05664	(80, 8)	615100.0	4171750.0	34.66294	(306, 8)
615350.0	4171750.0	39.40166	(325, 10)	615600.0	4171750.0	42.72964	(244, 8)
615850.0	4171750.0	43.17752	(221, 5)	616100.0	4171750.0	70.53313	(334, 20)
616350.0	4171750.0	68.29005	(310, 20)	616600.0	4171750.0	61.60373	(133, 23)
614600.0	4172000.0	24.13681	(304, 11)	614850.0	4172000.0	34.06060	(14, 10)
615100.0	4172000.0	29.79429	(60, 11)	615350.0	4172000.0	34.29953	(308, 19)
615600.0	4172000.0	46.78551	(325, 10)	615850.0	4172000.0	41.50493	(293, 7)
616100.0	4172000.0	66.09086	(355, 20)	616350.0	4172000.0	64.96178	(238, 4)
616600.0	4172000.0	66.21833	(194, 23)	614600.0	4172250.0	21.13478	(330, 11)
614850.0	4172250.0	32.96296	(14, 10)	615100.0	4172250.0	23.06837	(91, 10)
615350.0	4172250.0	30.61012	(363, 15)	615600.0	4172250.0	38.74138	(220, 2)
615850.0	4172250.0	63.68261	(8, 8)	616100.0	4172250.0	66.77163	(303, 7)
616350.0	4172250.0	62.85204	(315, 6)	616600.0	4172250.0	58.52300	(220, 5)
614600.0	4172500.0	18.77554	(330, 10)	614850.0	4172500.0	28.48287	(14, 10)
615100.0	4172500.0	21.50559	(362, 14)	615350.0	4172500.0	29.60945	(47, 19)
615600.0	4172500.0	36.46792	(70, 1)	615850.0	4172500.0	51.51101	(28, 2)
616100.0	4172500.0	67.21131	(116, 23)	616350.0	4172500.0	64.10471	(303, 7)
616600.0	4172500.0	61.52774	(18, 18)	616170.0	4172880.0	57.46057	(297, 6)
612700.0	4170900.0	14.27311	(214, 7)	612700.0	4170800.0	16.12069	(277, 18)
612700.0	4170700.0	15.19731	(20, 10)	612700.0	4170600.0	17.08714	(61, 19)
612700.0	4170500.0	15.13267	(17, 20)	612700.0	4170400.0	16.62752	(12, 16)
612700.0	4170300.0	14.80595	(352, 9)	612700.0	4170200.0	14.71510	(12, 10)
612700.0	4170100.0	14.48377	(28, 23)	615900.0	4169300.0	63.15139	(312, 8)
613450.0	4172500.0	12.01994	(240, 9)	613450.0	4172400.0	13.99273	(360, 10)

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
613450.0	4172300.0	12.05072	(271, 19)	613450.0	4172200.0	15.01785	(272, 19)
613450.0	4172100.0	14.75418	(91, 9)	613450.0	4172000.0	15.87393	(251, 19)
613450.0	4171900.0	17.44000	(359, 18)	613450.0	4171800.0	18.27576	(110, 20)
613450.0	4171700.0	17.74819	(45, 12)	613450.0	4171600.0	17.34122	(47, 10)
613450.0	4171500.0	17.24339	(59, 19)	613450.0	4171400.0	18.58795	(213, 7)
613450.0	4171300.0	20.81888	(45, 18)	613450.0	4171200.0	21.76409	(325, 17)
613450.0	4171100.0	20.48298	(325, 17)	613450.0	4171000.0	22.31369	(333, 17)
613000.0	4172800.0	12.01370	(360, 10)	613000.0	4172600.0	12.19276	(272, 19)
613000.0	4172400.0	12.60243	(91, 9)	613000.0	4172200.0	13.77609	(351, 10)
613000.0	4172000.0	14.21836	(71, 9)	613000.0	4171800.0	14.54914	(341, 18)
613000.0	4171600.0	15.18373	(203, 7)	613000.0	4171400.0	15.30085	(213, 7)
613000.0	4171200.0	15.72847	(325, 17)	613000.0	4171000.0	17.78591	(214, 7)
613000.0	4170800.0	18.81841	(277, 18)	613200.0	4170800.0	20.65124	(88, 20)
613400.0	4170800.0	24.38058	(15, 17)	613600.0	4170800.0	26.82935	(353, 10)
613800.0	4170800.0	34.48285	(45, 10)	614000.0	4170800.0	39.93035	(24, 10)
614200.0	4170800.0	49.25769	(23, 12)	614400.0	4170800.0	56.42734	(90, 11)
614600.0	4170800.0	62.53757	(19, 16)	614850.0	4170800.0	88.72368	(358, 9)
615100.0	4170800.0	92.44016	(64, 14)	615350.0	4170800.0	57.43618	(309, 19)
615600.0	4170800.0	58.27591	(28, 16)	615850.0	4170800.0	67.10105	(186, 23)
613000.0	4170400.0	17.87430	(12, 10)	613200.0	4170400.0	19.28476	(300, 17)
613400.0	4170400.0	19.21251	(349, 2)	613600.0	4170400.0	23.91245	(25, 9)
613800.0	4170400.0	27.22602	(25, 16)	614000.0	4170400.0	34.97052	(38, 10)
614200.0	4170400.0	37.83469	(29, 11)	614400.0	4170400.0	48.09948	(270, 18)
614600.0	4170400.0	61.65348	(347, 23)	614850.0	4170400.0	76.51756	(40, 3)
615100.0	4170400.0	61.95070	(331, 10)	615350.0	4170400.0	63.43565	(13, 22)
615600.0	4170400.0	65.97489	(342, 1)	615850.0	4170400.0	66.26508	(270, 7)
608000.0	4166500.0	3.98498	(111, 22)	611000.0	4165500.0	24.59846	(312, 24)
613000.0	4167500.0	40.95071	(303, 1)	615000.0	4166500.0	32.25470	(8, 24)
616000.0	4169500.0	66.21558	(13, 22)	616000.0	4172500.0	50.08018	(106, 23)
614000.0	4174500.0	9.40859	(128, 4)	616000.0	4175500.0	34.27818	(343, 7)
614000.0	4177500.0	25.11699	(119, 5)	606000.0	4174500.0	4.65243	(30, 9)
609000.0	4174500.0	13.56994	(364, 6)	612000.0	4174500.0	6.80883	(132, 6)
609000.0	4173500.0	4.73341	(263, 20)	610000.0	4175500.0	5.48558	(251, 7)
610000.0	4173500.0	9.27607	(8, 9)	608000.0	4177500.0	7.79341	(134, 2)
611000.0	4177500.0	7.14905	(294, 22)	606000.0	4171500.0	3.22394	(218, 3)
606000.0	4172500.0	2.95445	(58, 10)	607000.0	4172500.0	3.48827	(75, 8)
607000.0	4171500.0	3.68618	(218, 3)	608000.0	4172500.0	4.31527	(12, 22)
608000.0	4171500.0	4.39662	(348, 23)	609000.0	4172500.0	7.65527	(29, 18)

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 101,

* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
610000.0	4172500.0	10.88030	(17, 22)	610000.0	4171500.0	6.76985	(112, 1)
612000.0	4171500.0	9.96290	(173, 3)	611000.0	4169500.0	11.11591	(352, 9)
612000.0	4170500.0	12.32862	(339, 9)	611000.0	4172500.0	7.72634	(28, 24)
613000.0	4172500.0	12.54778	(91, 9)	612000.0	4173500.0	7.57959	(99, 1)
608000.0	4169500.0	4.96796	(339, 9)	609000.0	4169500.0	6.20874	(19, 18)
610000.0	4169500.0	8.27048	(34, 9)	608000.0	4170500.0	4.72213	(10, 20)
609000.0	4170500.0	5.86697	(10, 20)	606000.0	4170500.0	3.18214	(307, 24)
607000.0	4170500.0	4.01038	(69, 1)	606000.0	4169500.0	3.18222	(11, 5)
607000.0	4169500.0	3.98280	(66, 8)	606000.0	4168500.0	3.33116	(19, 18)
614600.0	4170150.0	65.77267	(8, 5)	614850.0	4170150.0	62.90030	(300, 22)
615100.0	4170150.0	67.92771	(13, 24)	615350.0	4170150.0	69.15253	(9, 3)
614850.0	4169900.0	68.66791	(8, 24)	615100.0	4169900.0	65.30005	(312, 23)
615350.0	4169900.0	56.61480	(357, 5)	615900.0	4172900.0	55.56045	(315, 7)
616400.0	4172900.0	56.39591	(41, 4)	616700.0	4172900.0	49.10828	(209, 5)
617000.0	4172900.0	52.85052	(249, 1)	614900.0	4171050.0	81.23534	(57, 17)
615000.0	4171050.0	111.94119	(125, 16)	615100.0	4171050.0	97.48449	(160, 20)
615200.0	4171050.0	105.32408	(162, 20)	615300.0	4171050.0	91.89709	(352, 17)
614900.0	4171150.0	146.64049	(225, 16)	615000.0	4171150.0	120.60070	(158, 19)
615100.0	4171150.0	96.84856	(154, 19)	615200.0	4171150.0	92.52772	(285, 18)
615300.0	4171150.0	91.70825	(286, 18)	614900.0	4171250.0	92.76933	(197, 11)
615000.0	4171250.0	92.44306	(136, 15)	615200.0	4171250.0	86.42567	(155, 8)
615300.0	4171250.0	77.68539	(344, 17)	614900.0	4171350.0	71.90877	(207, 17)
615000.0	4171350.0	73.06032	(199, 8)	615100.0	4171350.0	72.97304	(178, 8)
615200.0	4171350.0	69.12346	(132, 19)	615300.0	4171350.0	59.57980	(264, 18)
614900.0	4171450.0	56.07055	(73, 10)	615000.0	4171450.0	60.92676	(336, 10)
615100.0	4171450.0	75.39983	(257, 8)	615200.0	4171450.0	72.13184	(244, 8)
615300.0	4171450.0	52.10482	(248, 9)				



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MAX 50
1-HR
SGROUP #

1

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat for 11/0 ***

* 50 MAXIMUM 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 101,

RANK	CON.	HOUR	DAY	X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	RANK	CON.	HOUR	DAY	X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)
1	146.96785	14	225	614900.0	4171150.0	26	120.69407	19	222	615000.0	4171150.0
2	146.64049	16	225	614900.0	4171150.0	27	120.60070	19	158	615000.0	4171150.0
3	145.71666	17	225	614900.0	4171150.0	28	120.06592	18	72	615000.0	4171150.0
4	145.66972	17	191	614900.0	4171150.0	29	119.03380	18	149	615000.0	4171150.0
5	145.57233	16	150	614900.0	4171150.0	30	118.43204	18	124	614900.0	4171150.0
6	145.56602	15	230	614900.0	4171150.0	31	118.25379	18	164	614900.0	4171150.0
7	143.31755	17	193	614900.0	4171150.0	32	118.18234	17	137	615000.0	4171150.0
8	141.72250	16	191	614900.0	4171150.0	33	117.55831	15	131	615000.0	4171150.0
9	140.99088	17	170	614900.0	4171150.0	34	116.76671	10	54	615000.0	4171150.0
10	137.90923	15	225	614900.0	4171150.0	35	116.22797	19	247	615000.0	4171150.0
11	133.76816	19	178	614900.0	4171150.0	36	116.18497	14	31	614900.0	4171150.0
12	132.27785	17	255	614900.0	4171150.0	37	115.62366	18	183	615000.0	4171150.0
13	132.24184	19	180	614900.0	4171150.0	38	115.48864	19	202	615000.0	4171150.0
14	130.99370	18	252	614900.0	4171150.0	39	115.11877	18	91	614900.0	4171150.0
15	129.62631	8	257	615000.0	4171350.0	40	114.96127	17	175	614900.0	4171150.0
16	129.28842	9	108	614900.0	4171150.0	41	114.56940	20	191	614900.0	4171150.0
17	129.03809	18	113	614900.0	4171150.0	42	114.08561	15	204	614900.0	4171150.0
18	126.30322	19	231	614900.0	4171150.0	43	113.90962	16	219	614900.0	4171150.0
19	125.51958	19	201	614900.0	4171150.0	44	113.86676	18	221	614900.0	4171150.0
20	124.83236	19	234	614900.0	4171150.0	45	113.82442	18	231	614900.0	4171150.0
21	124.83236	20	190	614900.0	4171150.0	46	113.77268	16	192	614900.0	4171150.0
22	122.67725	11	54	614900.0	4171150.0	47	113.73721	14	164	614900.0	4171150.0
23	122.38353	16	131	614900.0	4171150.0	48	113.68914	17	247	614900.0	4171150.0
24	122.24262	13	82	615000.0	4171050.0	49	113.66320	18	234	614900.0	4171150.0
25	122.06662	18	81	614900.0	4171150.0	50	113.57865	15	281	614900.0	4171150.0

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2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat for 11/0 ***

* 350-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	- X -	- Y -	CON.	- X -	- Y -	CON.
614600.0	4171000.0	15.91050	614850.0	4171000.0	11.01910	615100.0	4171000.0	3.15615
615350.0	4171000.0	2.62909	615600.0	4171000.0	2.04518	615850.0	4171000.0	1.44979
616100.0	4171000.0	1.02781	616350.0	4171000.0	0.80874	616600.0	4171000.0	0.68001
614600.0	4171250.0	90.39888	614850.0	4171250.0	132.76138	615100.0	4171250.0	17.48427
615350.0	4171250.0	6.29565	615600.0	4171250.0	3.55172	615850.0	4171250.0	2.26002
616100.0	4171250.0	1.54246	616350.0	4171250.0	1.11588	616600.0	4171250.0	0.85383
614600.0	4171500.0	8.01672	614850.0	4171500.0	9.69956	615100.0	4171500.0	19.24799
615350.0	4171500.0	8.93159	615600.0	4171500.0	4.74941	615850.0	4171500.0	2.92353
616100.0	4171500.0	2.05211	616350.0	4171500.0	1.54187	616600.0	4171500.0	1.15615
614600.0	4171750.0	3.16184	614850.0	4171750.0	3.98402	615100.0	4171750.0	5.24121
615350.0	4171750.0	7.97868	615600.0	4171750.0	6.11159	615850.0	4171750.0	3.51432
616100.0	4171750.0	2.37607	616350.0	4171750.0	1.71620	616600.0	4171750.0	1.31990
614600.0	4172000.0	2.22230	614850.0	4172000.0	2.32778	615100.0	4172000.0	2.29155
615350.0	4172000.0	4.11053	615600.0	4172000.0	4.91385	615850.0	4172000.0	3.98504
616100.0	4172000.0	2.86897	616350.0	4172000.0	1.95097	616600.0	4172000.0	1.52185
614600.0	4172250.0	1.29821	614850.0	4172250.0	1.57076	615100.0	4172250.0	1.70768
615350.0	4172250.0	2.21848	615600.0	4172250.0	2.91630	615850.0	4172250.0	3.28227
616100.0	4172250.0	2.77533	616350.0	4172250.0	2.35192	616600.0	4172250.0	1.69493
614600.0	4172500.0	0.85831	614850.0	4172500.0	1.08532	615100.0	4172500.0	1.51837
615350.0	4172500.0	1.35530	615600.0	4172500.0	1.89791	615850.0	4172500.0	2.14448
616100.0	4172500.0	2.39029	616350.0	4172500.0	2.06689	616600.0	4172500.0	1.86585
616170.0	4172800.0	1.46361	612700.0	4170900.0	0.59807	612700.0	4170800.0	0.60805
612700.0	4170700.0	0.68853	612700.0	4170600.0	0.74983	612700.0	4170500.0	0.81000
612700.0	4170400.0	0.76615	612700.0	4170300.0	0.66230	612700.0	4170200.0	0.54169
612700.0	4170100.0	0.48143	615900.0	4169300.0	0.30640	613450.0	4172500.0	0.95398
613450.0	4172400.0	1.12146	613450.0	4172300.0	1.23745	613450.0	4172200.0	1.44986
613450.0	4172100.0	1.89648	613450.0	4172000.0	2.34142	613450.0	4171900.0	2.78764
613450.0	4171800.0	3.36046	613450.0	4171700.0	3.90450	613450.0	4171600.0	3.81659
613450.0	4171500.0	3.76789	613450.0	4171400.0	2.99223	613450.0	4171300.0	2.58681
613450.0	4171200.0	2.74081	613450.0	4171100.0	2.25499	613450.0	4171000.0	1.38560
613000.0	4172800.0	0.70492	613000.0	4172600.0	0.80268	613000.0	4172400.0	1.20189
613000.0	4172200.0	1.57554	613000.0	4172000.0	2.12075	613000.0	4171800.0	2.36098
613000.0	4171600.0	2.32405	613000.0	4171400.0	1.53596	613000.0	4171200.0	1.59853
613000.0	4171000.0	0.96460	613000.0	4170800.0	0.89667	613200.0	4170800.0	1.11212
613400.0	4170800.0	1.49902	613600.0	4170800.0	2.10990	613800.0	4170800.0	2.66942
614000.0	4170800.0	2.78480	614200.0	4170800.0	3.33985	614400.0	4170800.0	5.14397
614600.0	4170800.0	5.25935	614850.0	4170800.0	4.74686	615100.0	4170800.0	1.88945
615350.0	4170800.0	1.12118	615600.0	4170800.0	0.74323	615850.0	4170800.0	0.82117

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat jor11/0 ***

* 350-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	- X -	- Y -	CON.	- X -	- Y -	CON.
613000.0	4170400.0	0.83050	613200.0	4170400.0	0.84448	613400.0	4170400.0	0.97033
613600.0	4170400.0	1.04449	613800.0	4170400.0	1.13827	614000.0	4170400.0	1.79967
614200.0	4170400.0	1.73787	614400.0	4170400.0	2.03740	614600.0	4170400.0	1.96655
614850.0	4170400.0	2.05700	615100.0	4170400.0	0.95768	615350.0	4170400.0	0.97645
615600.0	4170400.0	0.67065	615850.0	4170400.0	0.41110	608000.0	4166500.0	0.04625
611000.0	4165500.0	0.08494	613000.0	4167500.0	0.21128	615000.0	4166500.0	0.14016
616000.0	4169500.0	0.33787	616000.0	4172500.0	2.30009	614000.0	4174500.0	0.21113
616000.0	4175500.0	0.27314	614000.0	4177500.0	0.10868	606000.0	4174500.0	0.22023
609000.0	4174500.0	0.42357	612000.0	4174500.0	0.21903	609000.0	4173500.0	0.26859
610000.0	4175500.0	0.16352	610000.0	4173500.0	0.56052	608000.0	4177500.0	0.14873
611000.0	4177500.0	0.09138	606000.0	4171500.0	0.07529	606000.0	4172500.0	0.06953
607000.0	4172500.0	0.10928	607000.0	4171500.0	0.09583	608000.0	4172500.0	0.17331
608000.0	4171500.0	0.12634	609000.0	4172500.0	0.39883	610000.0	4172500.0	0.68400
610000.0	4171500.0	0.26234	612000.0	4171500.0	0.65887	611000.0	4169500.0	0.26261
612000.0	4170500.0	0.43469	611000.0	4172500.0	0.62576	613000.0	4172500.0	0.99601
612000.0	4173500.0	0.36456	608000.0	4169500.0	0.09074	609000.0	4169500.0	0.13391
610000.0	4169500.0	0.20773	608000.0	4170500.0	0.08745	609000.0	4170500.0	0.11252
606000.0	4170500.0	0.05619	607000.0	4170500.0	0.07249	606000.0	4169500.0	0.04158
607000.0	4169500.0	0.06048	606000.0	4168500.0	0.05647	614600.0	4170150.0	1.22019
614850.0	4170150.0	1.26292	615100.0	4170150.0	1.05428	615350.0	4170150.0	0.76972
614850.0	4169900.0	0.90493	615100.0	4169900.0	0.69027	615350.0	4169900.0	0.43416
615900.0	4172900.0	1.35053	616400.0	4172900.0	1.55351	616700.0	4172900.0	1.47442
617000.0	4172900.0	1.33923	614900.0	4171050.0	10.86332	615000.0	4171050.0	5.50705
615100.0	4171050.0	4.77597	615200.0	4171050.0	4.41101	615300.0	4171050.0	3.80953
614900.0	4171150.0	34.65280	615000.0	4171150.0	17.97145	615100.0	4171150.0	10.91552
615200.0	4171150.0	7.39082	615300.0	4171150.0	5.30466	614900.0	4171250.0	72.71991
615000.0	4171250.0	30.82081	615200.0	4171250.0	10.75674	615300.0	4171250.0	7.34699
614900.0	4171350.0	46.18300	615000.0	4171350.0	37.94232	615100.0	4171350.0	20.73847
615200.0	4171350.0	12.95680	615300.0	4171350.0	8.89986	614900.0	4171450.0	15.46768
615000.0	4171450.0	24.31216	615100.0	4171450.0	21.84800	615200.0	4171450.0	15.16125
615300.0	4171450.0	9.98844						



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HIGH
1-HR
SGROUT

2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
614600.0	4171000.0	2266.63403	(32, 2)	614850.0	4171000.0	2552.83105	(9, 3)
615100.0	4171000.0	1500.10437	(213, 21)	615350.0	4171000.0	897.55042	(300, 24)
615600.0	4171000.0	624.23846	(141, 23)	615850.0	4171000.0	446.54010	(70, 20)
616100.0	4171000.0	271.33093	(70, 20)	616350.0	4171000.0	212.86700	(18, 4)
616600.0	4171000.0	222.77367	(18, 4)	614600.0	4171250.0	2685.99219	(264, 3)
614850.0	4171250.0	7665.19922	(323, 9)	615100.0	4171250.0	1755.89514	(177, 4)
615350.0	4171250.0	954.96570	(296, 23)	615600.0	4171250.0	633.82635	(98, 22)
615850.0	4171250.0	415.93903	(216, 22)	616100.0	4171250.0	313.63763	(41, 5)
616350.0	4171250.0	269.39801	(41, 5)	616600.0	4171250.0	232.69711	(41, 5)
614600.0	4171500.0	1160.92908	(215, 1)	614850.0	4171500.0	1348.63928	(41, 7)
615100.0	4171500.0	1118.46411	(240, 22)	615350.0	4171500.0	729.52734	(98, 20)
615600.0	4171500.0	573.09753	(113, 3)	615850.0	4171500.0	364.08215	(27, 22)
616100.0	4171500.0	331.15735	(188, 6)	616350.0	4171500.0	265.28168	(177, 4)
616600.0	4171500.0	226.10150	(8, 7)	614600.0	4171750.0	668.30664	(261, 1)
614850.0	4171750.0	603.67908	(116, 24)	615100.0	4171750.0	787.07111	(266, 8)
615350.0	4171750.0	575.13617	(8, 8)	615600.0	4171750.0	1200.60852	(323, 9)
615850.0	4171750.0	377.23203	(308, 23)	616100.0	4171750.0	308.09033	(14, 6)
616350.0	4171750.0	247.03401	(154, 1)	616600.0	4171750.0	195.51450	(291, 1)
614600.0	4172000.0	427.96759	(279, 3)	614850.0	4172000.0	476.11490	(141, 22)
615100.0	4172000.0	469.54935	(190, 3)	615350.0	4172000.0	453.74319	(94, 2)
615600.0	4172000.0	402.32840	(8, 8)	615850.0	4172000.0	1051.95471	(323, 9)
616100.0	4172000.0	441.52744	(323, 9)	616350.0	4172000.0	236.95256	(308, 23)
616600.0	4172000.0	203.59888	(194, 23)	614600.0	4172250.0	300.36304	(227, 4)
614850.0	4172250.0	364.07660	(154, 3)	615100.0	4172250.0	381.83771	(96, 23)
615350.0	4172250.0	372.91385	(195, 5)	615600.0	4172250.0	323.38083	(297, 6)
615850.0	4172250.0	284.96838	(8, 8)	616100.0	4172250.0	716.08264	(323, 9)
616350.0	4172250.0	664.22858	(323, 9)	616600.0	4172250.0	197.62285	(323, 9)
614600.0	4172500.0	241.20210	(187, 24)	614850.0	4172500.0	262.93457	(173, 23)
615100.0	4172500.0	296.93317	(356, 3)	615350.0	4172500.0	293.99057	(283, 23)
615600.0	4172500.0	394.44641	(266, 8)	615850.0	4172500.0	250.49435	(354, 20)
616100.0	4172500.0	218.08919	(8, 8)	616350.0	4172500.0	473.38681	(323, 9)
616600.0	4172500.0	677.32788	(323, 9)	616170.0	4172880.0	178.31183	(354, 20)
612700.0	4170900.0	134.84093	(64, 5)	612700.0	4170800.0	134.67384	(276, 22)
612700.0	4170700.0	143.24355	(304, 1)	612700.0	4170600.0	143.14214	(246, 7)
612700.0	4170500.0	139.46814	(97, 7)	612700.0	4170400.0	137.63733	(276, 23)
612700.0	4170300.0	132.11705	(132, 23)	612700.0	4170200.0	125.13213	(59, 1)
612700.0	4170100.0	124.00503	(134, 6)	615900.0	4169300.0	175.05818	(25, 20)
613450.0	4172500.0	113.04311	(262, 4)	613450.0	4172400.0	124.25539	(245, 1)

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MatDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
 * FROM SOURCES: 102,
 * FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
613450.0	4172300.0	132.10930	(68, 22)	613450.0	4172200.0	143.17552	(104, 22)
613450.0	4172100.0	151.17622	(241, 1)	613450.0	4172000.0	163.32616	(251, 21)
613450.0	4171900.0	177.04837	(104, 21)	613450.0	4171800.0	186.07610	(295, 21)
613450.0	4171700.0	207.75662	(276, 2)	613450.0	4171600.0	222.81728	(263, 2)
613450.0	4171500.0	238.92511	(269, 20)	613450.0	4171400.0	249.01585	(241, 3)
613450.0	4171300.0	277.73785	(261, 21)	613450.0	4171200.0	291.14902	(276, 24)
613450.0	4171100.0	295.56064	(242, 5)	613450.0	4171000.0	300.04004	(291, 24)
613000.0	4172800.0	79.94226	(87, 4)	613000.0	4172600.0	87.16215	(251, 6)
613000.0	4172400.0	97.57433	(241, 1)	613000.0	4172200.0	106.82139	(92, 7)
613000.0	4172000.0	124.04328	(264, 3)	613000.0	4171800.0	137.25070	(212, 22)
613000.0	4171600.0	151.90924	(31, 21)	613000.0	4171400.0	167.74757	(17, 24)
613000.0	4171200.0	172.80501	(276, 24)	613000.0	4171000.0	174.72151	(262, 2)
613000.0	4170800.0	187.92177	(298, 24)	613200.0	4170800.0	220.17978	(152, 22)
613400.0	4170800.0	270.18448	(246, 7)	613600.0	4170800.0	342.67117	(97, 7)
613800.0	4170800.0	451.53201	(324, 3)	614000.0	4170800.0	593.53217	(65, 23)
614200.0	4170800.0	796.72528	(35, 2)	614400.0	4170800.0	1036.78137	(276, 4)
614600.0	4170800.0	1383.42896	(300, 20)	614850.0	4170800.0	1485.96118	(259, 22)
615100.0	4170800.0	837.18335	(362, 8)	615350.0	4170800.0	701.49548	(116, 22)
615600.0	4170800.0	430.70682	(316, 3)	615850.0	4170800.0	420.54187	(228, 24)
613000.0	4170400.0	176.01707	(213, 4)	613200.0	4170400.0	206.62105	(83, 23)
613400.0	4170400.0	244.91757	(277, 7)	613600.0	4170400.0	292.30075	(203, 5)
613800.0	4170400.0	359.50156	(34, 7)	614000.0	4170400.0	449.84589	(12, 18)
614200.0	4170400.0	483.95233	(269, 5)	614400.0	4170400.0	615.29034	(315, 5)
614600.0	4170400.0	681.61774	(14, 4)	614850.0	4170400.0	660.41589	(260, 22)
615100.0	4170400.0	575.02393	(28, 22)	615350.0	4170400.0	497.34586	(13, 22)
615600.0	4170400.0	406.39087	(70, 7)	615850.0	4170400.0	338.14520	(235, 23)
608000.0	4166500.0	16.10656	(308, 9)	611000.0	4165500.0	38.48454	(312, 24)
613000.0	4167500.0	78.31749	(66, 7)	615000.0	4166500.0	58.01268	(8, 6)
616000.0	4169500.0	189.62889	(13, 22)	616000.0	4172500.0	227.07326	(41, 4)
614000.0	4174500.0	56.82080	(190, 5)	616000.0	4175500.0	70.62868	(303, 21)
614000.0	4177500.0	40.20210	(14, 5)	606000.0	4174500.0	15.66894	(58, 23)
609000.0	4174500.0	38.76505	(153, 4)	612000.0	4174500.0	32.32656	(19, 19)
609000.0	4173500.0	15.60630	(9, 8)	610000.0	4175500.0	20.75619	(277, 23)
610000.0	4173500.0	41.69055	(245, 2)	608000.0	4177500.0	22.61053	(30, 5)
611000.0	4177500.0	27.19591	(277, 6)	606000.0	4171500.0	8.95939	(99, 21)
606000.0	4172500.0	6.97886	(311, 7)	607000.0	4172500.0	10.11065	(241, 3)
607000.0	4171500.0	11.19571	(23, 22)	608000.0	4172500.0	14.53773	(270, 20)
608000.0	4171500.0	14.95150	(112, 2)	609000.0	4172500.0	32.48621	(105, 22)

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
610000.0	4172500.0	49.26263	(105, 1)	610000.0	4171500.0	31.31989	(246, 2)
612000.0	4171500.0	75.45969	(103, 2)	611000.0	4169500.0	62.57827	(213, 4)
612000.0	4170500.0	93.32298	(152, 22)	611000.0	4172500.0	39.78804	(115, 24)
613000.0	4172500.0	94.23368	(43, 8)	612000.0	4173500.0	43.11578	(273, 22)
608000.0	4169500.0	20.00977	(152, 22)	609000.0	4169500.0	26.09460	(246, 7)
610000.0	4169500.0	45.26022	(320, 9)	608000.0	4170500.0	16.61385	(9, 23)
609000.0	4170500.0	24.72448	(241, 5)	606000.0	4170500.0	8.62610	(242, 5)
607000.0	4170500.0	12.72098	(175, 24)	606000.0	4169500.0	8.59978	(276, 22)
607000.0	4169500.0	12.47803	(298, 24)	606000.0	4168500.0	10.14786	(320, 9)
614600.0	4170150.0	399.82397	(8, 5)	614850.0	4170150.0	477.09531	(360, 18)
615100.0	4170150.0	450.98203	(60, 5)	615350.0	4170150.0	398.84515	(9, 3)
614850.0	4169900.0	360.88428	(8, 6)	615100.0	4169900.0	345.49323	(259, 22)
615350.0	4169900.0	319.07294	(28, 22)	615900.0	4172900.0	302.85846	(266, 8)
616400.0	4172900.0	147.85889	(41, 4)	616700.0	4172900.0	198.45215	(323, 9)
617000.0	4172900.0	521.06073	(323, 9)	614900.0	4171050.0	2736.31714	(52, 3)
615000.0	4171050.0	2023.94751	(213, 21)	615100.0	4171050.0	1614.98462	(19, 8)
615200.0	4171050.0	1269.58813	(227, 23)	615300.0	4171050.0	905.82709	(141, 23)
614900.0	4171150.0	3742.40527	(59, 21)	615000.0	4171150.0	2107.40381	(18, 4)
615100.0	4171150.0	1803.09827	(18, 4)	615200.0	4171150.0	1401.66418	(251, 23)
615300.0	4171150.0	1106.82825	(241, 23)	614900.0	4171250.0	3087.07324	(194, 23)
615000.0	4171250.0	2217.70264	(27, 22)	615200.0	4171250.0	1221.70007	(112, 21)
615300.0	4171250.0	1064.52686	(296, 23)	614900.0	4171350.0	2183.87012	(61, 2)
615000.0	4171350.0	3649.61011	(323, 9)	615100.0	4171350.0	1496.82678	(262, 20)
615200.0	4171350.0	1219.59961	(113, 3)	615300.0	4171350.0	938.44031	(291, 1)
614900.0	4171450.0	1576.61646	(195, 5)	615000.0	4171450.0	1432.85913	(41, 4)
615100.0	4171450.0	2670.74268	(323, 9)	615200.0	4171450.0	1287.55505	(323, 9)
615300.0	4171450.0	875.76013	(262, 20)				

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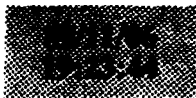
*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MatDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,

* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
614600.0	4171000.0	2266.63403	(76, 6)	614850.0	4171000.0	2552.83105	(156, 23)
615100.0	4171000.0	1500.10437	(363, 8)	615350.0	4171000.0	867.31641	(13, 7)
615600.0	4171000.0	624.23846	(214, 22)	615850.0	4171000.0	426.21625	(344, 5)
616100.0	4171000.0	253.78114	(236, 21)	616350.0	4171000.0	212.86700	(86, 23)
616600.0	4171000.0	222.77367	(86, 23)	614600.0	4171250.0	2685.99219	(295, 21)
614850.0	4171250.0	3520.00684	(43, 1)	615100.0	4171250.0	1576.74536	(8, 7)
615350.0	4171250.0	758.30579	(98, 22)	615600.0	4171250.0	576.20575	(60, 24)
615850.0	4171250.0	371.96808	(98, 22)	616100.0	4171250.0	280.69421	(216, 22)
616350.0	4171250.0	207.63960	(317, 5)	616600.0	4171250.0	194.37907	(317, 5)
614600.0	4171500.0	1160.92883	(137, 3)	614850.0	4171500.0	1348.63928	(319, 23)
615100.0	4171500.0	1118.46399	(268, 22)	615350.0	4171500.0	729.52728	(19, 4)
615600.0	4171500.0	573.09753	(216, 24)	615850.0	4171500.0	328.66315	(175, 22)
616100.0	4171500.0	318.17535	(9, 5)	616350.0	4171500.0	215.74872	(8, 7)
616600.0	4171500.0	226.10150	(216, 4)	614600.0	4171750.0	668.30646	(363, 21)
614850.0	4171750.0	603.67896	(14, 24)	615100.0	4171750.0	622.78296	(188, 1)
615350.0	4171750.0	575.13617	(116, 23)	615600.0	4171750.0	485.85724	(43, 1)
615850.0	4171750.0	314.36002	(238, 4)	616100.0	4171750.0	308.09033	(334, 20)
616350.0	4171750.0	247.03401	(248, 4)	616600.0	4171750.0	195.51450	(361, 6)
614600.0	4172000.0	427.96756	(297, 4)	614850.0	4172000.0	476.11490	(296, 4)
615100.0	4172000.0	435.51697	(283, 23)	615350.0	4172000.0	453.74319	(161, 4)
615600.0	4172000.0	402.32840	(116, 23)	615850.0	4172000.0	329.86594	(356, 1)
616100.0	4172000.0	259.30951	(20, 5)	616350.0	4172000.0	201.45941	(262, 20)
616600.0	4172000.0	203.59888	(334, 1)	614600.0	4172250.0	300.36304	(318, 7)
614850.0	4172250.0	364.07660	(173, 23)	615100.0	4172250.0	381.83771	(310, 6)
615350.0	4172250.0	315.72531	(266, 8)	615600.0	4172250.0	293.98254	(157, 23)
615850.0	4172250.0	284.96838	(116, 23)	616100.0	4172250.0	246.28857	(249, 1)
616350.0	4172250.0	215.35556	(43, 1)	616600.0	4172250.0	188.35239	(324, 4)
614600.0	4172500.0	241.20209	(63, 7)	614850.0	4172500.0	262.93454	(154, 3)
615100.0	4172500.0	273.56631	(104, 6)	615350.0	4172500.0	293.99057	(309, 22)
615600.0	4172500.0	275.62265	(37, 6)	615850.0	4172500.0	232.15263	(297, 6)
616100.0	4172500.0	218.08919	(116, 23)	616350.0	4172500.0	189.67754	(361, 4)
616600.0	4172500.0	167.27698	(166, 6)	616170.0	4172880.0	161.27409	(297, 6)
612700.0	4170900.0	134.84093	(105, 2)	612700.0	4170800.0	134.67383	(47, 22)
612700.0	4170700.0	143.24353	(79, 3)	612700.0	4170600.0	143.14214	(274, 5)
612700.0	4170500.0	139.46814	(99, 2)	612700.0	4170400.0	137.63733	(277, 21)
612700.0	4170300.0	132.11705	(315, 22)	612700.0	4170200.0	125.13213	(84, 22)
612700.0	4170100.0	114.72150	(65, 23)	615900.0	4169300.0	175.05818	(312, 8)
613450.0	4172500.0	113.04311	(296, 7)	613450.0	4172400.0	124.25537	(87, 4)



*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MatDat for 11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
613450.0	4172300.0	132.10930	(174, 3)	613450.0	4172200.0	143.17552	(175, 5)
613450.0	4172100.0	151.17621	(242, 3)	613450.0	4172000.0	163.32616	(278, 1)
613450.0	4171900.0	177.04837	(213, 2)	613450.0	4171800.0	186.07608	(99, 6)
613450.0	4171700.0	207.75662	(290, 20)	613450.0	4171600.0	222.81726	(88, 4)
613450.0	4171500.0	238.92511	(275, 20)	613450.0	4171400.0	249.01584	(295, 23)
613450.0	4171300.0	277.73785	(275, 24)	613450.0	4171200.0	291.14899	(21, 6)
613450.0	4171100.0	295.56058	(33, 23)	613450.0	4171000.0	300.04001	(9, 6)
613000.0	4172800.0	79.94226	(91, 3)	613000.0	4172600.0	87.16213	(55, 5)
613000.0	4172400.0	97.57433	(242, 3)	613000.0	4172200.0	106.82139	(116, 4)
613000.0	4172000.0	124.04328	(295, 21)	613000.0	4171800.0	137.25070	(217, 22)
613000.0	4171600.0	151.90924	(42, 23)	613000.0	4171400.0	167.74757	(85, 6)
613000.0	4171200.0	172.80501	(309, 23)	613000.0	4171000.0	174.72151	(317, 8)
613000.0	4170800.0	187.92174	(17, 7)	613200.0	4170800.0	220.17975	(312, 2)
613400.0	4170800.0	270.18445	(75, 22)	613600.0	4170800.0	342.67117	(99, 2)
613800.0	4170800.0	451.53195	(25, 19)	614000.0	4170800.0	593.53217	(83, 23)
614200.0	4170800.0	784.35651	(203, 5)	614400.0	4170800.0	1036.78125	(89, 7)
614600.0	4170800.0	1376.20947	(353, 22)	614850.0	4170800.0	1352.49976	(295, 1)
615100.0	4170800.0	801.11438	(325, 7)	615350.0	4170800.0	663.82623	(301, 3)
615600.0	4170800.0	383.56238	(344, 23)	615850.0	4170800.0	380.96713	(19, 8)
613000.0	4170400.0	176.01707	(300, 21)	613200.0	4170400.0	206.62103	(65, 23)
613400.0	4170400.0	244.91757	(298, 21)	613600.0	4170400.0	292.30075	(318, 23)
613800.0	4170400.0	359.50156	(57, 2)	614000.0	4170400.0	449.84583	(19, 23)
614200.0	4170400.0	483.95233	(337, 8)	614400.0	4170400.0	577.26434	(66, 7)
614600.0	4170400.0	681.61774	(290, 24)	614850.0	4170400.0	660.41589	(273, 6)
615100.0	4170400.0	316.02039	(99, 8)	615350.0	4170400.0	497.34586	(27, 7)
615600.0	4170400.0	406.39087	(342, 1)	615850.0	4170400.0	324.44052	(270, 7)
608000.0	4166500.0	13.40088	(35, 2)	611000.0	4165500.0	38.48454	(321, 1)
613000.0	4167500.0	78.31749	(303, 1)	615000.0	4166500.0	58.01268	(8, 24)
616000.0	4169500.0	189.62889	(27, 7)	616000.0	4172500.0	186.36082	(106, 23)
614000.0	4174500.0	56.82080	(67, 6)	616000.0	4175500.0	62.65936	(41, 7)
614000.0	4177500.0	40.20210	(63, 7)	606000.0	4174500.0	15.66894	(75, 21)
609000.0	4174500.0	38.76505	(242, 6)	612000.0	4174500.0	32.32656	(32, 7)
609000.0	4173500.0	15.60630	(59, 24)	610000.0	4175500.0	20.75619	(9, 7)
610000.0	4173500.0	41.69054	(41, 2)	608000.0	4177500.0	22.61053	(87, 4)
611000.0	4177500.0	27.19591	(294, 22)	606000.0	4171500.0	8.95939	(301, 4)
606000.0	4172500.0	6.97885	(332, 9)	607000.0	4172500.0	10.11065	(264, 4)
607000.0	4171500.0	11.19571	(25, 23)	608000.0	4172500.0	14.53773	(272, 24)
608000.0	4171500.0	14.95150	(176, 4)	609000.0	4172500.0	32.48621	(11, 21)

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,

* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
610000.0	4172500.0	49.26263	(106, 5)	610000.0	4171500.0	31.31989	(63, 2)
612000.0	4171500.0	75.45968	(17, 24)	611000.0	4169500.0	62.57827	(300, 21)
612000.0	4170500.0	93.32297	(312, 2)	611000.0	4172500.0	39.78804	(252, 5)
613000.0	4172500.0	94.23368	(304, 5)	612000.0	4173500.0	43.11578	(103, 23)
608000.0	4169500.0	20.00977	(312, 2)	609000.0	4169500.0	26.09460	(75, 22)
610000.0	4169500.0	37.29681	(240, 24)	608000.0	4170500.0	16.61385	(25, 4)
609000.0	4170500.0	24.72448	(251, 5)	606000.0	4170500.0	8.62610	(33, 23)
607000.0	4170500.0	12.72098	(335, 6)	606000.0	4169500.0	8.59977	(47, 22)
607000.0	4169500.0	12.47803	(303, 24)	606000.0	4168500.0	9.37248	(22, 19)
614600.0	4170150.0	354.70886	(295, 24)	614850.0	4170150.0	381.03583	(8, 6)
615100.0	4170150.0	450.98203	(90, 24)	615350.0	4170150.0	398.84515	(156, 23)
614850.0	4169900.0	360.88428	(8, 24)	615100.0	4169900.0	329.51459	(295, 1)
615350.0	4169900.0	211.30385	(349, 3)	615900.0	4172900.0	194.51875	(15, 7)
616400.0	4172900.0	134.23331	(106, 23)	616700.0	4172900.0	117.15879	(362, 2)
617000.0	4172900.0	127.36875	(356, 1)	614900.0	4171050.0	2736.31714	(332, 2)
615000.0	4171050.0	2023.94751	(363, 8)	615100.0	4171050.0	1614.98462	(331, 8)
615200.0	4171050.0	1269.58801	(13, 7)	615300.0	4171050.0	905.82709	(214, 22)
614900.0	4171150.0	3742.40527	(333, 6)	615000.0	4171150.0	2107.40381	(86, 23)
615100.0	4171150.0	1803.09827	(86, 23)	615200.0	4171150.0	1332.07568	(241, 23)
615300.0	4171150.0	1034.85168	(251, 23)	614900.0	4171250.0	3087.07275	(334, 1)
615000.0	4171250.0	2038.09839	(9, 5)	615200.0	4171250.0	1215.20691	(8, 7)
615300.0	4171250.0	751.69794	(112, 21)	614900.0	4171350.0	2183.87012	(211, 4)
615000.0	4171350.0	1815.33838	(43, 1)	615100.0	4171350.0	1422.02698	(120, 21)
615200.0	4171350.0	1219.59961	(216, 24)	615300.0	4171350.0	938.44025	(361, 6)
614900.0	4171450.0	1489.45410	(186, 24)	615000.0	4171450.0	1384.08740	(153, 22)
615100.0	4171450.0	1242.04309	(249, 1)	615200.0	4171450.0	981.30725	(324, 4)
615300.0	4171450.0	826.21875	(308, 23)				



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MAX 50
1-HF
SGROU

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1987 MetDat for11/0 ***

* 50 MAXIMUM 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,

RANK	CON.	HOUR DAY	X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	RANK	CON.	HOUR DAY	X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)
1	7665.19922	9 323	614850.0	4171250.0	26	2983.70483	20 262	614900.0	4171250.0
2	3742.40527	6 333	614900.0	4171150.0	27	2950.74805	22 236	614850.0	4171250.0
3	3742.40527	21 59	614900.0	4171150.0	28	2950.74805	23 214	614850.0	4171250.0
4	3693.74048	20 258	614900.0	4171150.0	29	2950.74731	20 355	614850.0	4171250.0
5	3693.74048	22 214	614900.0	4171150.0	30	2950.74731	8 41	614850.0	4171250.0
6	3693.74048	23 141	614900.0	4171150.0	31	2950.74683	5 20	614850.0	4171250.0
7	3649.61011	9 323	615000.0	4171350.0	32	2947.54150	8 289	614850.0	4171250.0
8	3539.36108	5 344	614900.0	4171150.0	33	2925.60815	8 325	614850.0	4171250.0
9	3520.00684	1 43	614850.0	4171250.0	34	2896.73291	1 249	614850.0	4171250.0
10	3502.16577	7 242	614850.0	4171250.0	35	2879.04224	8 298	614850.0	4171250.0
11	3502.16553	18 18	614850.0	4171250.0	36	2840.39624	1 119	614900.0	4171150.0
12	3428.32910	6 166	614850.0	4171250.0	37	2789.98267	20 334	614900.0	4171250.0
13	3428.32886	7 323	614850.0	4171250.0	38	2789.98193	6 14	614900.0	4171250.0
14	3295.00757	24 302	614850.0	4171250.0	39	2736.31714	2 332	614900.0	4171050.0
15	3295.00757	21 301	614850.0	4171250.0	40	2736.31714	3 52	614900.0	4171050.0
16	3295.00757	3 296	614850.0	4171250.0	41	2722.68921	23 308	614900.0	4171250.0
17	3295.00757	5 294	614850.0	4171250.0	42	2712.45850	5 36	614900.0	4171250.0
18	3295.00732	6 315	614850.0	4171250.0	43	2707.69751	5 69	614850.0	4171250.0
19	3218.16919	1 356	614850.0	4171250.0	44	2693.97339	5 28	614850.0	4171250.0
20	3124.43579	20 70	614900.0	4171150.0	45	2685.99219	21 295	614600.0	4171250.0
21	3087.07324	23 194	614900.0	4171250.0	46	2685.99219	3 264	614600.0	4171250.0
22	3087.07275	1 334	614900.0	4171250.0	47	2685.99170	5 115	614600.0	4171250.0
23	3073.99805	5 320	614900.0	4171250.0	48	2685.99170	6 99	614600.0	4171250.0
24	3073.99805	23 172	614900.0	4171250.0	49	2685.99121	8 318	614600.0	4171250.0
25	3073.99805	21 120	614900.0	4171250.0	50	2685.99121	3 35	614600.0	4171250.0

ISCST RESULTS

1988

ra:jor

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Tue Nov 7 08:23:12 1989

lw / OmniLaser

lw ra:jor Job: llisc88b.fin.iou Date: Tue Nov 7 08:23:12 1989

lw ra:jor Job: llisc88b.fin.iou Date: Tue Nov 7 08:23:12 1989

lw ra:jor Job: llisc88b.fin.iou Date: Tue Nov 7 08:23:12 1989

lw ra:jor Job: llisc88b.fin.iou Date: Tue Nov 7 08:23:12 1989

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MatDat jor11/0 ***

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CALCULATE (CONCENTRATION=1,DEPOSITION=2)                      ISW(1) = 1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)     ISW(2) = 1
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)           ISW(3) = 1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)                     ISW(4) = 1
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)                 ISW(5) = 1
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)            ISW(6) = 1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)
WITH THE FOLLOWING TIME PERIODS:
  HOURLY (YES=1,NO=0)                                         ISW(7) = 1
  2-HOUR (YES=1,NO=0)                                         ISW(8) = 0
  3-HOUR (YES=1,NO=0)                                         ISW(9) = 0
  4-HOUR (YES=1,NO=0)                                         ISW(10) = 0
  6-HOUR (YES=1,NO=0)                                         ISW(11) = 0
  8-HOUR (YES=1,NO=0)                                         ISW(12) = 0
  12-HOUR (YES=1,NO=0)                                        ISW(13) = 0
  24-HOUR (YES=1,NO=0)                                        ISW(14) = 0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)                         ISW(15) = 1

PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE
SPECIFIED BY ISW(7) THROUGH ISW(14):
  DAILY TABLES (YES=1,NO=0)                                  ISW(16) = 0
  HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)              ISW(17) = 1
  MAXIMUM 50 TABLES (YES=1,NO=0)                             ISW(18) = 1
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)    ISW(19) = 1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3) ISW(20) = 0
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)   ISW(21) = 1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3) ISW(22) = 1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)             ISW(23) = 0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)         ISW(24) = 1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)   ISW(25) = 2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)         ISW(26) = 1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)      ISW(27) = 1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)                       ISW(28) = 2
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)             ISW(29) = 2
DEBUG OPTION CHOSEN (YES=1,NO=2)                              ISW(30) = 2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)       ISW(31) = 0

NUMBER OF INPUT SOURCES                                       NSOURC = 2
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)                     NGROUP = 2
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)       IPERD = 0
NUMBER OF X (RANGE) GRID VALUES                             NXPNTS = 0
NUMBER OF Y (THETA) GRID VALUES                             NYPNTS = 0
NUMBER OF DISCRETE RECEPTORS                                NXWYPT = 205
SOURCE EMISSION RATE UNITS CONVERSION FACTOR                 TK = .10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED        ZR = 10.00 METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA                  IMET = 9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION         DECAP = 0.000000E+00
SURFACE STATION NO.                                          ISS = 1
YEAR OF SURFACE DATA                                        ISY = 88
UPPER AIR STATION NO.                                        IUS = 23230
YEAR OF UPPER AIR DATA                                      IUY = 88
LOGICAL UNIT OF CALCULATION 'SAVE' TAPE                     ITAP = 3
ALLOCATED DATA STORAGE                                     LIMIT = 500000 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN                  MIMIT = 4461 WORDS

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*** METEOROLOGICAL DAYS TO BE PROCESSED ***
(IF=1)

[illegible]

*** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

1, 1,

*** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

101, 102,

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY					
	1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat jor11/0 ***

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY					
	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MatDat jor11/0 ***

*** X,Y COORDINATES OF DISCRETE RECEPTORS *** (METERS)

```
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(
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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MatDat jor11/0 ***

* ELEVATION HEIGHTS IN METERS *
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	ELE.	- X -	- Y -	ELE.	- X -	- Y -	ELE.
614600.0	4171000.0	196.59639	614850.0	4171000.0	199.64439	615100.0	4171000.0	204.21640
615350.0	4171000.0	216.40843	615600.0	4171000.0	231.64845	615850.0	4171000.0	237.74446
616100.0	4171000.0	243.84048	616350.0	4171000.0	249.93649	616600.0	4171000.0	249.93649
614600.0	4171250.0	193.54839	614850.0	4171250.0	195.68199	615100.0	4171250.0	199.03479
615350.0	4171250.0	202.69240	615600.0	4171250.0	213.36041	615850.0	4171250.0	222.50444
616100.0	4171250.0	228.60045	616350.0	4171250.0	228.60045	616600.0	4171250.0	237.74446
614600.0	4171500.0	190.50038	614850.0	4171500.0	192.02438	615100.0	4171500.0	195.07239
615350.0	4171500.0	195.07239	615600.0	4171500.0	200.25400	615850.0	4171500.0	205.74040
616100.0	4171500.0	220.37083	616350.0	4171500.0	230.12445	616600.0	4171500.0	230.12445
614600.0	4171750.0	188.36678	614850.0	4171750.0	187.45236	615100.0	4171750.0	189.28117
615350.0	4171750.0	192.93878	615600.0	4171750.0	196.59639	615850.0	4171750.0	201.16840
616100.0	4171750.0	214.88443	616350.0	4171750.0	211.83641	616600.0	4171750.0	219.15163
614600.0	4172000.0	185.92836	614850.0	4172000.0	187.45236	615100.0	4172000.0	188.97638
615350.0	4172000.0	192.63397	615600.0	4172000.0	196.59639	615850.0	4172000.0	201.16840
616100.0	4172000.0	207.26440	616350.0	4172000.0	209.70282	616600.0	4172000.0	214.88443
614600.0	4172250.0	183.48996	614850.0	4172250.0	187.45236	615100.0	4172250.0	190.50038
615350.0	4172250.0	195.07239	615600.0	4172250.0	199.64439	615850.0	4172250.0	205.74040
616100.0	4172250.0	208.17880	616350.0	4172250.0	213.05562	616600.0	4172250.0	222.50444
614600.0	4172500.0	183.48996	614850.0	4172500.0	185.92836	615100.0	4172500.0	189.58597
615350.0	4172500.0	194.46278	615600.0	4172500.0	199.64439	615850.0	4172500.0	204.21640
616100.0	4172500.0	207.26440	616350.0	4172500.0	213.36041	616600.0	4172500.0	218.54202
616170.0	4172880.0	210.31241	612700.0	4170900.0	178.91795	612700.0	4170800.0	179.83235
612700.0	4170700.0	181.05156	612700.0	4170600.0	181.66116	612700.0	4170500.0	181.66116
612700.0	4170400.0	181.35635	612700.0	4170300.0	180.74675	612700.0	4170200.0	180.44196
612700.0	4170100.0	180.13716	615900.0	4169300.0	226.16205	613450.0	4172500.0	173.73634
613450.0	4172400.0	174.65074	613450.0	4172300.0	175.26035	613450.0	4172200.0	176.17474
613450.0	4172100.0	176.78435	613450.0	4172000.0	177.69875	613450.0	4171900.0	178.61314
613450.0	4171800.0	179.52756	613450.0	4171700.0	180.74675	613450.0	4171600.0	181.66116
613450.0	4171500.0	182.57556	613450.0	4171400.0	183.48996	613450.0	4171300.0	185.31877
613450.0	4171200.0	186.23317	613450.0	4171100.0	187.45236	613450.0	4171000.0	187.75717
613000.0	4172800.0	169.77394	613000.0	4172600.0	170.68834	613000.0	4172400.0	172.21234
613000.0	4172200.0	173.43153	613000.0	4172000.0	175.56514	613000.0	4171800.0	177.69875
613000.0	4171600.0	179.22275	613000.0	4171400.0	180.44196	613000.0	4171200.0	181.05156
613000.0	4171000.0	181.35635	613000.0	4170800.0	184.09956	613200.0	4170800.0	185.31877
613400.0	4170800.0	187.45236	613600.0	4170800.0	189.58597	613800.0	4170800.0	192.02438
614000.0	4170800.0	193.85318	614200.0	4170800.0	195.68199	614400.0	4170800.0	195.37718
614600.0	4170800.0	196.90118	614850.0	4170800.0	203.60680	615100.0	4170800.0	212.14122
615350.0	4170800.0	249.93649	615600.0	4170800.0	249.93649	615850.0	4170800.0	250.85089

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* ELEVATION HEIGHTS IN METERS *
 * FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	ELE.	- X -	- Y -	ELE.	- X -	- Y -	ELE.
613000.0	4170400.0	184.40436	613200.0	4170400.0	186.53796	613400.0	4170400.0	188.36678
613600.0	4170400.0	189.89078	613800.0	4170400.0	193.24358	614000.0	4170400.0	196.90118
614200.0	4170400.0	195.07239	614400.0	4170400.0	200.55879	614600.0	4170400.0	206.04521
614850.0	4170400.0	225.55244	615100.0	4170400.0	238.65887	615350.0	4170400.0	237.74446
615600.0	4170400.0	256.03250	615850.0	4170400.0	274.32053	608000.0	4166500.0	142.95148
611000.0	4165500.0	274.01575	613000.0	4167500.0	206.95961	615000.0	4166500.0	323.08862
616000.0	4169500.0	225.85724	616000.0	4172500.0	203.91161	614000.0	4174500.0	167.94513
616000.0	4175500.0	280.11176	614000.0	4177500.0	238.04927	606000.0	4174500.0	152.09550
609000.0	4174500.0	182.88036	612000.0	4174500.0	157.88670	609000.0	4173500.0	142.95148
610000.0	4175500.0	152.09550	610000.0	4173500.0	170.99313	608000.0	4177500.0	170.99313
611000.0	4177500.0	167.94513	606000.0	4171500.0	131.06425	606000.0	4172500.0	124.96825
607000.0	4172500.0	134.11226	607000.0	4171500.0	136.85547	608000.0	4172500.0	142.03708
608000.0	4171500.0	142.95148	609000.0	4172500.0	164.89713	610000.0	4172500.0	177.08914
610000.0	4171500.0	157.88670	612000.0	4171500.0	170.99313	611000.0	4169500.0	177.08914
612000.0	4170500.0	177.08914	611000.0	4172500.0	161.84912	613000.0	4172500.0	171.90753
612000.0	4173500.0	161.84912	608000.0	4169500.0	152.09550	609000.0	4169500.0	157.88670
610000.0	4169500.0	166.11633	608000.0	4170500.0	145.99948	609000.0	4170500.0	155.14351
606000.0	4170500.0	131.06425	607000.0	4170500.0	139.90347	606000.0	4169500.0	130.14986
607000.0	4169500.0	139.90347	606000.0	4168500.0	132.89307	614600.0	4170150.0	207.26440
614850.0	4170150.0	219.45644	615100.0	4170150.0	237.74446	615350.0	4170150.0	251.46049
614850.0	4169900.0	219.45644	615100.0	4169900.0	225.55244	615350.0	4169900.0	240.79248
615900.0	4172900.0	204.21640	616400.0	4172900.0	219.45644	616700.0	4172900.0	225.55244
617000.0	4172900.0	240.79248	614900.0	4171050.0	201.16840	615000.0	4171050.0	202.08279
615100.0	4171050.0	202.08279	615200.0	4171050.0	205.74040	615300.0	4171050.0	208.78841
614900.0	4171150.0	199.64439	615000.0	4171150.0	200.55879	615100.0	4171150.0	200.55879
615200.0	4171150.0	202.69240	615300.0	4171150.0	206.35001	614900.0	4171250.0	196.59639
615000.0	4171250.0	198.12039	615200.0	4171250.0	201.16840	615300.0	4171250.0	202.08279
614900.0	4171350.0	195.07239	615000.0	4171350.0	195.98679	615100.0	4171350.0	197.20599
615200.0	4171350.0	198.12039	615300.0	4171350.0	197.51079	614900.0	4171450.0	193.54839
615000.0	4171450.0	194.46278	615100.0	4171450.0	195.68199	615200.0	4171450.0	195.68199
615300.0	4171450.0	195.37718						

*** SOURCE DATA ***

D-70

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW	IFV	BH	BW
1	5.9,	13.7,	2	5.9,	14.7,	3	5.9,	15.2,	4	5.9,	15.3,	5	5.9,	14.9,	6	5.9,	14.
7	5.9,	12.8,	8	5.9,	11.1,	9	5.9,	9.1,	10	5.9,	11.1,	11	5.9,	12.8,	12	5.9,	14.
13	5.9,	14.9,	14	5.9,	15.3,	15	5.9,	15.2,	16	5.9,	14.7,	17	5.9,	13.7,	18	5.9,	12.
19	5.9,	13.7,	20	5.9,	14.7,	21	5.9,	15.2,	22	5.9,	15.3,	23	5.9,	14.9,	24	5.9,	14.
25	5.9,	12.8,	26	5.9,	11.1,	27	5.9,	9.1,	28	5.9,	11.1,	29	5.9,	12.8,	30	5.9,	14.
31	5.9,	14.9,	32	5.9,	15.3,	33	5.9,	15.2,	34	5.9,	14.7,	35	5.9,	13.7,	36	5.9,	12.

* CALM HOURS	(-1)	FOR DAY	5 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	8 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	9 *	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS	(-1)	FOR DAY	13 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	28 *	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	33 *	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	35 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	38 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS	(-1)	FOR DAY	55 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	56 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	57 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	64 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	78 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	80 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	95 *	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	96 *	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	97 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	98 *	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	99 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	101 *	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	102 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	103 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS	(-1)	FOR DAY	105 *	0	0																							

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* CALM HOURS (-1) FOR DAY 321 * 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 324 * 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (-1) FOR DAY 325 * 0 1 0 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 326 * 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 331 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
* CALM HOURS (-1) FOR DAY 332 * 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 1
* CALM HOURS (-1) FOR DAY 333 * 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 336 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (-1) FOR DAY 337 * 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 338 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (-1) FOR DAY 339 * 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 340 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (-1) FOR DAY 341 * 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (-1) FOR DAY 344 * 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 345 * 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 346 * 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 347 * 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 1 1
* CALM HOURS (-1) FOR DAY 348 * 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (-1) FOR DAY 352 * 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 354 * 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 355 * 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 357 * 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 358 * 0 1 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 360 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (-1) FOR DAY 361 * 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (-1) FOR DAY 363 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 1 1

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat jor11/0 ***

* 352-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	- X -	- Y -	CON.	- X -	- Y -	CON.
614600.0	4171000.0	1.73698	614850.0	4171000.0	0.58689	615100.0	4171000.0	0.68445
615350.0	4171000.0	0.89952	615600.0	4171000.0	0.90457	615850.0	4171000.0	0.86398
616100.0	4171000.0	0.77856	616350.0	4171000.0	0.68478	616600.0	4171000.0	0.59540
614600.0	4171250.0	0.05778	614850.0	4171250.0	3.99011	615100.0	4171250.0	4.47615
615350.0	4171250.0	2.81896	615600.0	4171250.0	2.08734	615850.0	4171250.0	1.49275
616100.0	4171250.0	1.13446	616350.0	4171250.0	0.90021	616600.0	4171250.0	0.73598
614600.0	4171500.0	0.05107	614850.0	4171500.0	0.13645	615100.0	4171500.0	1.98594
615350.0	4171500.0	2.25437	615600.0	4171500.0	1.99020	615850.0	4171500.0	1.71200
616100.0	4171500.0	1.34088	616350.0	4171500.0	1.09144	616600.0	4171500.0	0.90587
614600.0	4171750.0	0.04246	614850.0	4171750.0	0.08941	615100.0	4171750.0	0.32932
615350.0	4171750.0	1.17010	615600.0	4171750.0	1.72990	615850.0	4171750.0	1.74508
616100.0	4171750.0	1.65082	616350.0	4171750.0	1.26462	616600.0	4171750.0	0.99679
614600.0	4172000.0	0.04106	614850.0	4172000.0	0.09645	615100.0	4172000.0	0.16603
615350.0	4172000.0	0.50102	615600.0	4172000.0	1.05886	615850.0	4172000.0	1.56648
616100.0	4172000.0	1.63636	616350.0	4172000.0	1.43809	616600.0	4172000.0	1.17496
614600.0	4172250.0	0.04228	614850.0	4172250.0	0.09851	615100.0	4172250.0	0.13860
615350.0	4172250.0	0.37345	615600.0	4172250.0	0.75613	615850.0	4172250.0	1.23437
616100.0	4172250.0	1.44287	616350.0	4172250.0	1.32376	616600.0	4172250.0	1.15675
614600.0	4172500.0	0.05239	614850.0	4172500.0	0.09159	615100.0	4172500.0	0.12365
615350.0	4172500.0	0.25974	615600.0	4172500.0	0.50058	615850.0	4172500.0	0.82704
616100.0	4172500.0	1.03794	616350.0	4172500.0	1.14172	616600.0	4172500.0	1.09299
616170.0	4172880.0	0.72067	612700.0	4170900.0	0.09109	612700.0	4170800.0	0.08397
612700.0	4170700.0	0.08279	612700.0	4170600.0	0.08370	612700.0	4170500.0	0.08431
612700.0	4170400.0	0.08769	612700.0	4170300.0	0.08819	612700.0	4170200.0	0.08498
612700.0	4170100.0	0.08351	615900.0	4169300.0	0.14587	613450.0	4172500.0	0.05131
613450.0	4172400.0	0.05065	613450.0	4172300.0	0.05315	613450.0	4172200.0	0.07291
613450.0	4172100.0	0.10152	613450.0	4172000.0	0.12462	613450.0	4171900.0	0.12917
613450.0	4171800.0	0.13616	613450.0	4171700.0	0.14319	613450.0	4171600.0	0.14201
613450.0	4171500.0	0.15115	613450.0	4171400.0	0.15045	613450.0	4171300.0	0.14144
613450.0	4171200.0	0.13289	613450.0	4171100.0	0.13345	613450.0	4171000.0	0.13355
613000.0	4172800.0	0.04760	613000.0	4172600.0	0.05933	613000.0	4172400.0	0.10228
613000.0	4172200.0	0.12475	613000.0	4172000.0	0.13802	613000.0	4171800.0	0.14792
613000.0	4171600.0	0.15643	613000.0	4171400.0	0.13397	613000.0	4171200.0	0.11129
613000.0	4171000.0	0.10314	613000.0	4170800.0	0.09811	613200.0	4170800.0	0.10315
613400.0	4170800.0	0.11746	613600.0	4170800.0	0.13861	613800.0	4170800.0	0.17986
614000.0	4170800.0	0.23922	614200.0	4170800.0	0.42620	614400.0	4170800.0	0.82849
614600.0	4170800.0	1.17036	614850.0	4170800.0	0.73135	615100.0	4170800.0	0.34516
615350.0	4170800.0	0.34389	615600.0	4170800.0	0.36007	615850.0	4170800.0	0.34606

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat jor11/0 ***

* 352-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	- X -	- Y -	CON.	- X -	- Y -	CON.
613000.0	4170400.0	0.10810	613200.0	4170400.0	0.11976	613400.0	4170400.0	0.15135
613600.0	4170400.0	0.19112	613800.0	4170400.0	0.24759	614000.0	4170400.0	0.37574
614200.0	4170400.0	0.45856	614400.0	4170400.0	0.56899	614600.0	4170400.0	0.51916
614850.0	4170400.0	0.45689	615100.0	4170400.0	0.34072	615350.0	4170400.0	0.24317
615600.0	4170400.0	0.18818	615850.0	4170400.0	0.21226	608000.0	4166500.0	0.01925
611000.0	4165500.0	0.08073	613000.0	4167500.0	0.14425	615000.0	4166500.0	0.07820
616000.0	4169500.0	0.13597	616000.0	4172500.0	0.87156	614000.0	4174500.0	0.03357
616000.0	4175500.0	0.14909	614000.0	4177500.0	0.09410	606000.0	4174500.0	0.06299
609000.0	4174500.0	0.17129	612000.0	4174500.0	0.03917	609000.0	4173500.0	0.04858
610000.0	4175500.0	0.02933	610000.0	4173500.0	0.13178	608000.0	4177500.0	0.05011
611000.0	4177500.0	0.03326	606000.0	4171500.0	0.02134	606000.0	4172500.0	0.02151
607000.0	4172500.0	0.03120	607000.0	4171500.0	0.02578	608000.0	4172500.0	0.04345
608000.0	4171500.0	0.03167	609000.0	4172500.0	0.10130	610000.0	4172500.0	0.17339
610000.0	4171500.0	0.05374	612000.0	4171500.0	0.09338	611000.0	4169500.0	0.06262
612000.0	4170500.0	0.06646	611000.0	4172500.0	0.09168	613000.0	4172500.0	0.08187
612000.0	4173500.0	0.04217	608000.0	4169500.0	0.02230	609000.0	4169500.0	0.02676
610000.0	4169500.0	0.03754	608000.0	4170500.0	0.02731	609000.0	4170500.0	0.03628
606000.0	4170500.0	0.01734	607000.0	4170500.0	0.02259	606000.0	4169500.0	0.01273
607000.0	4169500.0	0.01576	606000.0	4168500.0	0.01231	614600.0	4170150.0	0.37472
614850.0	4170150.0	0.36764	615100.0	4170150.0	0.29389	615350.0	4170150.0	0.25455
614850.0	4169900.0	0.30945	615100.0	4169900.0	0.25424	615350.0	4169900.0	0.22854
615900.0	4172900.0	0.49591	616400.0	4172900.0	0.74033	616700.0	4172900.0	0.82376
617000.0	4172900.0	0.81587	614900.0	4171050.0	0.58172	615000.0	4171050.0	0.90291
615100.0	4171050.0	1.18184	615200.0	4171050.0	1.37634	615300.0	4171050.0	1.42064
614900.0	4171150.0	5.08314	615000.0	4171150.0	5.38981	615100.0	4171150.0	4.16931
615200.0	4171150.0	3.45481	615300.0	4171150.0	3.05471	614900.0	4171250.0	5.38550
615000.0	4171250.0	5.53879	615200.0	4171250.0	3.74218	615300.0	4171250.0	3.06100
614900.0	4171350.0	1.58780	615000.0	4171350.0	3.95092	615100.0	4171350.0	3.86847
615200.0	4171350.0	3.31948	615300.0	4171350.0	2.63839	614900.0	4171450.0	0.41048
615000.0	4171450.0	1.44724	615100.0	4171450.0	2.80539	615200.0	4171450.0	2.80253
615300.0	4171450.0	2.46359						

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 101,

* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
614600.0	4171000.0	82.32749	(304, 13)	614850.0	4171000.0	97.18756	(17, 16)
615100.0	4171000.0	102.04879	(322, 16)	615350.0	4171000.0	86.47099	(70, 5)
615600.0	4171000.0	81.31953	(269, 7)	615850.0	4171000.0	75.67598	(190, 22)
616100.0	4171000.0	69.37228	(28, 5)	616350.0	4171000.0	68.75385	(279, 4)
616600.0	4171000.0	66.91933	(279, 4)	614600.0	4171250.0	40.22535	(3, 18)
614850.0	4171250.0	87.03271	(357, 12)	615100.0	4171250.0	87.42345	(152, 8)
615350.0	4171250.0	75.35104	(158, 8)	615600.0	4171250.0	81.04858	(18, 1)
615850.0	4171250.0	73.99557	(152, 5)	616100.0	4171250.0	72.08768	(152, 5)
616350.0	4171250.0	69.45042	(337, 7)	616600.0	4171250.0	68.86162	(14, 20)
614600.0	4171500.0	38.48163	(4, 12)	614850.0	4171500.0	50.40179	(110, 10)
615100.0	4171500.0	115.11158	(253, 8)	615350.0	4171500.0	72.48421	(162, 7)
615600.0	4171500.0	49.34118	(319, 15)	615850.0	4171500.0	67.85866	(212, 5)
616100.0	4171500.0	68.03578	(279, 2)	616350.0	4171500.0	68.30060	(208, 24)
616600.0	4171500.0	63.24999	(337, 6)	614600.0	4171750.0	29.90080	(357, 10)
614850.0	4171750.0	30.29008	(110, 11)	615100.0	4171750.0	34.60437	(355, 14)
615350.0	4171750.0	75.85777	(253, 8)	615600.0	4171750.0	42.38950	(157, 7)
615850.0	4171750.0	50.06531	(162, 7)	616100.0	4171750.0	72.46669	(362, 4)
616350.0	4171750.0	68.91079	(106, 5)	616600.0	4171750.0	67.84594	(288, 3)
614600.0	4172000.0	27.61371	(7, 11)	614850.0	4172000.0	31.22816	(116, 7)
615100.0	4172000.0	29.93082	(296, 10)	615350.0	4172000.0	34.24113	(76, 8)
615600.0	4172000.0	53.79097	(253, 8)	615850.0	4172000.0	45.07579	(229, 23)
616100.0	4172000.0	70.49487	(4, 1)	616350.0	4172000.0	69.89951	(349, 1)
616600.0	4172000.0	67.78676	(336, 4)	614600.0	4172250.0	19.68360	(350, 18)
614850.0	4172250.0	24.66628	(355, 15)	615100.0	4172250.0	29.36743	(75, 9)
615350.0	4172250.0	32.43145	(180, 8)	615600.0	4172250.0	39.31314	(5, 20)
615850.0	4172250.0	63.94618	(348, 5)	616100.0	4172250.0	69.19407	(52, 8)
616350.0	4172250.0	67.48818	(252, 2)	616600.0	4172250.0	66.46677	(2, 20)
614600.0	4172500.0	18.65730	(339, 17)	614850.0	4172500.0	20.70688	(130, 21)
615100.0	4172500.0	23.73940	(271, 9)	615350.0	4172500.0	26.36820	(326, 9)
615600.0	4172500.0	37.86675	(316, 4)	615850.0	4172500.0	56.72812	(27, 3)
616100.0	4172500.0	68.23622	(348, 5)	616350.0	4172500.0	64.20457	(4, 23)
616600.0	4172500.0	60.49457	(239, 23)	616170.0	4172880.0	64.81758	(27, 3)
612700.0	4170900.0	14.95379	(363, 17)	612700.0	4170800.0	15.96256	(24, 17)
612700.0	4170700.0	16.90269	(37, 18)	612700.0	4170600.0	26.89531	(60, 9)
612700.0	4170500.0	31.71927	(60, 9)	612700.0	4170400.0	23.22007	(60, 9)
612700.0	4170300.0	16.07781	(361, 9)	612700.0	4170200.0	14.60385	(158, 20)
612700.0	4170100.0	15.61841	(35, 9)	615900.0	4169300.0	62.38324	(55, 4)
613450.0	4172500.0	11.02614	(41, 9)	613450.0	4172400.0	10.70218	(77, 19)

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MatDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

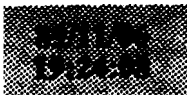
- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
613450.0	4172300.0	10.79785	(304, 9)	613450.0	4172200.0	15.57277	(14, 17)
613450.0	4172100.0	15.66645	(55, 20)	613450.0	4172000.0	16.53077	(77, 20)
613450.0	4171900.0	17.57867	(45, 18)	613450.0	4171800.0	17.06755	(54, 11)
613450.0	4171700.0	17.23143	(57, 18)	613450.0	4171600.0	19.78838	(24, 9)
613450.0	4171500.0	21.47218	(38, 18)	613450.0	4171400.0	22.14165	(305, 18)
613450.0	4171300.0	23.46393	(42, 9)	613450.0	4171200.0	20.77071	(128, 7)
613450.0	4171100.0	25.46145	(272, 18)	613450.0	4171000.0	25.81603	(25, 10)
613000.0	4172800.0	8.44644	(53, 9)	613000.0	4172600.0	10.43052	(14, 17)
613000.0	4172400.0	13.03088	(55, 20)	613000.0	4172200.0	14.05646	(39, 18)
613000.0	4172000.0	14.29352	(232, 7)	613000.0	4171800.0	15.96013	(24, 9)
613000.0	4171600.0	16.98487	(50, 18)	613000.0	4171400.0	17.40741	(45, 10)
613000.0	4171200.0	17.34826	(128, 7)	613000.0	4171000.0	17.27909	(105, 9)
613000.0	4170800.0	19.24443	(37, 18)	613200.0	4170800.0	22.19837	(60, 9)
613400.0	4170800.0	39.35881	(60, 9)	613600.0	4170800.0	53.68617	(60, 9)
613800.0	4170800.0	39.04133	(60, 9)	614000.0	4170800.0	40.82506	(26, 17)
614200.0	4170800.0	50.31858	(287, 18)	614400.0	4170800.0	57.60422	(100, 18)
614600.0	4170800.0	69.01512	(85, 18)	614850.0	4170800.0	75.01405	(70, 15)
615100.0	4170800.0	94.20779	(353, 12)	615350.0	4170800.0	74.71838	(9, 16)
615600.0	4170800.0	68.44942	(163, 1)	615850.0	4170800.0	69.63552	(326, 7)
613000.0	4170400.0	18.90650	(158, 20)	613200.0	4170400.0	19.39324	(35, 9)
613400.0	4170400.0	21.62498	(12, 9)	613600.0	4170400.0	26.30483	(13, 17)
613800.0	4170400.0	32.06193	(294, 17)	614000.0	4170400.0	38.75199	(57, 10)
614200.0	4170400.0	38.81831	(96, 9)	614400.0	4170400.0	51.68155	(340, 10)
614600.0	4170400.0	74.15769	(333, 21)	614850.0	4170400.0	55.41529	(324, 24)
615100.0	4170400.0	64.39695	(37, 10)	615350.0	4170400.0	77.27917	(269, 1)
615600.0	4170400.0	64.74601	(247, 1)	615850.0	4170400.0	71.00338	(362, 8)
608000.0	4166500.0	6.92270	(56, 10)	611000.0	4165500.0	25.43280	(363, 19)
613000.0	4167500.0	41.13937	(338, 23)	615000.0	4166500.0	37.50652	(271, 5)
616000.0	4169500.0	63.13824	(114, 4)	616000.0	4172500.0	53.91008	(297, 3)
614000.0	4174500.0	9.42504	(340, 18)	616000.0	4175500.0	39.01125	(324, 5)
614000.0	4177500.0	27.88203	(53, 5)	606000.0	4174500.0	4.63940	(354, 3)
609000.0	4174500.0	13.56994	(36, 3)	612000.0	4174500.0	7.56367	(251, 9)
609000.0	4173500.0	7.02092	(54, 10)	610000.0	4175500.0	5.51131	(53, 9)
610000.0	4173500.0	9.29049	(14, 6)	608000.0	4177500.0	7.85095	(361, 24)
611000.0	4177500.0	7.21916	(62, 24)	606000.0	4171500.0	3.24414	(112, 3)
606000.0	4172500.0	2.93387	(291, 8)	607000.0	4172500.0	3.49093	(15, 24)
607000.0	4171500.0	3.71084	(112, 3)	608000.0	4172500.0	4.30130	(304, 2)
608000.0	4171500.0	4.38221	(46, 3)	609000.0	4172500.0	7.65527	(16, 21)

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat jor11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
610000.0	4172500.0	10.88030	(124, 5)	610000.0	4171500.0	6.81511	(75, 22)
612000.0	4171500.0	11.10918	(291, 8)	611000.0	4169500.0	12.17187	(28, 9)
612000.0	4170500.0	12.74419	(60, 9)	611000.0	4172500.0	7.72634	(361, 21)
613000.0	4172500.0	12.78528	(14, 17)	612000.0	4173500.0	7.68089	(35, 4)
608000.0	4169500.0	5.14125	(60, 9)	609000.0	4169500.0	11.10597	(60, 9)
610000.0	4169500.0	13.47508	(60, 9)	608000.0	4170500.0	4.72213	(74, 8)
609000.0	4170500.0	6.11649	(360, 20)	606000.0	4170500.0	3.20024	(362, 9)
607000.0	4170500.0	4.00454	(289, 4)	606000.0	4169500.0	3.17095	(53, 1)
607000.0	4169500.0	3.77559	(170, 6)	606000.0	4168500.0	8.30184	(60, 9)
614600.0	4170150.0	65.94183	(324, 2)	614850.0	4170150.0	63.47905	(314, 20)
615100.0	4170150.0	70.91671	(315, 6)	615350.0	4170150.0	62.00376	(47, 4)
614850.0	4169900.0	69.95068	(361, 6)	615100.0	4169900.0	65.86668	(318, 7)
615350.0	4169900.0	70.85143	(334, 21)	615900.0	4172900.0	55.93163	(55, 7)
616400.0	4172900.0	62.07924	(136, 6)	616700.0	4172900.0	58.01340	(314, 6)
617000.0	4172900.0	54.75223	(288, 4)	614900.0	4171050.0	145.42004	(121, 11)
615000.0	4171050.0	125.79977	(322, 16)	615100.0	4171050.0	99.15973	(109, 19)
615200.0	4171050.0	97.24920	(311, 18)	615300.0	4171050.0	81.71167	(173, 22)
614900.0	4171150.0	145.20035	(121, 14)	615000.0	4171150.0	121.68702	(201, 17)
615100.0	4171150.0	98.10611	(167, 18)	615200.0	4171150.0	95.00800	(281, 18)
615300.0	4171150.0	92.00204	(205, 19)	614900.0	4171250.0	94.35320	(185, 15)
615000.0	4171250.0	93.97472	(226, 8)	615200.0	4171250.0	84.33276	(319, 14)
615300.0	4171250.0	78.43665	(158, 8)	614900.0	4171350.0	72.01906	(151, 15)
615000.0	4171350.0	100.95911	(157, 7)	615100.0	4171350.0	88.83541	(162, 7)
615200.0	4171350.0	69.95824	(214, 7)	615300.0	4171350.0	61.62012	(254, 19)
614900.0	4171450.0	57.58953	(110, 15)	615000.0	4171450.0	78.78143	(253, 8)
615100.0	4171450.0	63.30481	(198, 19)	615200.0	4171450.0	99.36770	(157, 7)
615300.0	4171450.0	85.86598	(162, 7)				



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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat for 11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
614600.0	4171000.0	79.80992	(346, 13)	614850.0	4171000.0	86.02111	(46, 11)
615100.0	4171000.0	83.74983	(32, 18)	615350.0	4171000.0	84.57280	(109, 21)
615600.0	4171000.0	74.35306	(212, 20)	615850.0	4171000.0	72.88290	(69, 1)
616100.0	4171000.0	68.63388	(271, 1)	616350.0	4171000.0	66.41435	(266, 20)
616600.0	4171000.0	65.82285	(318, 4)	614600.0	4171250.0	35.05934	(351, 15)
614850.0	4171250.0	84.51788	(125, 13)	615100.0	4171250.0	86.88187	(173, 8)
615350.0	4171250.0	74.47552	(75, 19)	615600.0	4171250.0	76.07345	(175, 21)
615850.0	4171250.0	72.67480	(201, 21)	616100.0	4171250.0	71.79333	(337, 7)
616350.0	4171250.0	69.17786	(356, 5)	616600.0	4171250.0	68.05962	(246, 24)
614600.0	4171500.0	35.13464	(350, 17)	614850.0	4171500.0	41.16272	(355, 12)
615100.0	4171500.0	69.74527	(98, 8)	615350.0	4171500.0	61.58089	(157, 7)
615600.0	4171500.0	48.61576	(353, 17)	615850.0	4171500.0	66.79600	(283, 23)
616100.0	4171500.0	67.18472	(111, 21)	616350.0	4171500.0	66.58461	(55, 5)
616600.0	4171500.0	62.12225	(193, 2)	614600.0	4171750.0	28.09302	(21, 12)
614850.0	4171750.0	28.79901	(188, 9)	615100.0	4171750.0	33.76638	(330, 10)
615350.0	4171750.0	42.94035	(98, 8)	615600.0	4171750.0	39.26263	(81, 9)
615850.0	4171750.0	43.48925	(300, 22)	616100.0	4171750.0	70.10970	(247, 4)
616350.0	4171750.0	67.45254	(171, 1)	616600.0	4171750.0	59.40799	(199, 22)
614600.0	4172000.0	23.22385	(350, 18)	614850.0	4172000.0	27.44949	(110, 11)
615100.0	4172000.0	29.29891	(352, 11)	615350.0	4172000.0	31.17613	(130, 8)
615600.0	4172000.0	35.93755	(274, 19)	615850.0	4172000.0	42.38131	(241, 22)
616100.0	4172000.0	66.09086	(54, 21)	616350.0	4172000.0	69.41029	(299, 5)
616600.0	4172000.0	66.21833	(182, 24)	614600.0	4172250.0	18.78413	(7, 11)
614850.0	4172250.0	22.25123	(116, 7)	615100.0	4172250.0	25.89692	(181, 21)
615350.0	4172250.0	31.98603	(174, 8)	615600.0	4172250.0	39.03400	(306, 1)
615850.0	4172250.0	63.29364	(26, 20)	616100.0	4172250.0	67.83943	(180, 24)
616350.0	4172250.0	67.37943	(179, 3)	616600.0	4172250.0	64.97823	(296, 20)
614600.0	4172500.0	15.27700	(350, 18)	614850.0	4172500.0	20.09196	(355, 15)
615100.0	4172500.0	21.93732	(59, 10)	615350.0	4172500.0	26.20982	(317, 5)
615600.0	4172500.0	35.89594	(313, 6)	615850.0	4172500.0	56.72812	(314, 8)
616100.0	4172500.0	67.66004	(26, 20)	616350.0	4172500.0	63.75189	(240, 4)
616600.0	4172500.0	59.25932	(48, 22)	616170.0	4172880.0	64.81758	(314, 8)
612700.0	4170900.0	14.83698	(25, 10)	612700.0	4170800.0	15.24201	(351, 10)
612700.0	4170700.0	14.91131	(60, 18)	612700.0	4170600.0	16.97007	(85, 9)
612700.0	4170500.0	16.67684	(67, 8)	612700.0	4170400.0	15.06693	(128, 2)
612700.0	4170300.0	15.87925	(158, 20)	612700.0	4170200.0	14.56711	(13, 10)
612700.0	4170100.0	14.44095	(123, 1)	615900.0	4169300.0	62.28986	(354, 6)
613450.0	4172500.0	10.59279	(77, 19)	613450.0	4172400.0	8.49756	(31, 1)

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MatDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
613450.0	4172300.0	9.43792	(14, 17)	613450.0	4172200.0	13.90228	(304, 9)
613450.0	4172100.0	15.45320	(23, 17)	613450.0	4172000.0	16.20825	(314, 10)
613450.0	4171900.0	16.25998	(39, 18)	613450.0	4171800.0	16.62284	(80, 10)
613450.0	4171700.0	16.71138	(80, 10)	613450.0	4171600.0	18.90654	(273, 19)
613450.0	4171500.0	21.06587	(50, 18)	613450.0	4171400.0	21.81872	(25, 18)
613450.0	4171300.0	20.33986	(340, 17)	613450.0	4171200.0	17.87757	(28, 11)
613450.0	4171100.0	25.23985	(111, 19)	613450.0	4171000.0	22.11284	(351, 10)
613000.0	4172800.0	8.40611	(120, 2)	613000.0	4172600.0	8.79449	(10, 9)
613000.0	4172400.0	12.53513	(10, 9)	613000.0	4172200.0	13.74003	(77, 20)
613000.0	4172000.0	13.96931	(9, 10)	613000.0	4171800.0	13.94415	(273, 19)
613000.0	4171600.0	16.93683	(38, 18)	613000.0	4171400.0	16.81964	(291, 8)
613000.0	4171200.0	12.95053	(134, 24)	613000.0	4171000.0	16.27256	(51, 17)
613000.0	4170800.0	18.61195	(24, 17)	613200.0	4170800.0	21.03679	(60, 18)
613400.0	4170800.0	22.12377	(60, 18)	613600.0	4170800.0	23.53182	(67, 8)
613800.0	4170800.0	32.78299	(58, 18)	614000.0	4170800.0	33.90841	(51, 16)
614200.0	4170800.0	49.14277	(79, 18)	614400.0	4170800.0	57.51707	(101, 18)
614600.0	4170800.0	66.12038	(337, 13)	614850.0	4170800.0	71.16087	(140, 8)
615100.0	4170800.0	67.66987	(353, 7)	615350.0	4170800.0	73.19674	(62, 18)
615600.0	4170800.0	60.96142	(207, 22)	615850.0	4170800.0	65.53445	(110, 24)
613000.0	4170400.0	18.85176	(13, 10)	613200.0	4170400.0	18.17735	(21, 9)
613400.0	4170400.0	20.93659	(334, 18)	613600.0	4170400.0	26.16893	(44, 18)
613800.0	4170400.0	28.44488	(105, 19)	614000.0	4170400.0	37.17827	(84, 8)
614200.0	4170400.0	35.95031	(34, 17)	614400.0	4170400.0	45.95680	(332, 10)
614600.0	4170400.0	47.92504	(320, 2)	614850.0	4170400.0	53.98637	(307, 5)
615100.0	4170400.0	58.47019	(278, 5)	615350.0	4170400.0	62.76066	(342, 5)
615600.0	4170400.0	55.41739	(12, 22)	615850.0	4170400.0	68.48146	(14, 7)
608000.0	4166500.0	5.33487	(344, 17)	611000.0	4165500.0	25.33881	(347, 1)
613000.0	4167500.0	41.13937	(347, 4)	615000.0	4166500.0	32.47259	(361, 6)
616000.0	4169500.0	62.95061	(340, 4)	616000.0	4172500.0	53.52171	(153, 24)
614000.0	4174500.0	9.40859	(37, 9)	616000.0	4175500.0	38.84610	(133, 5)
614000.0	4177500.0	27.84581	(26, 6)	606000.0	4174500.0	4.62669	(136, 7)
609000.0	4174500.0	13.52913	(39, 5)	612000.0	4174500.0	7.31783	(358, 19)
609000.0	4173500.0	4.45667	(73, 4)	610000.0	4175500.0	5.49835	(120, 2)
610000.0	4173500.0	9.26891	(8, 3)	608000.0	4177500.0	7.81471	(332, 3)
611000.0	4177500.0	7.19540	(305, 5)	606000.0	4171500.0	3.22835	(339, 18)
606000.0	4172500.0	2.80362	(53, 2)	607000.0	4172500.0	3.49093	(160, 5)
607000.0	4171500.0	3.69156	(339, 18)	608000.0	4172500.0	4.28888	(27, 20)
608000.0	4171500.0	4.37865	(358, 20)	609000.0	4172500.0	7.64955	(43, 1)

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 101,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
610000.0	4172500.0	10.85340	(44, 8)	610000.0	4171500.0	6.80854	(325, 20)
612000.0	4171500.0	10.71518	(22, 18)	611000.0	4169500.0	12.08669	(132, 1)
612000.0	4170500.0	12.65012	(37, 18)	611000.0	4172500.0	7.68420	(124, 7)
613000.0	4172500.0	12.48055	(10, 9)	612000.0	4173500.0	7.63407	(76, 6)
608000.0	4169500.0	4.95732	(170, 6)	609000.0	4169500.0	6.12516	(294, 18)
610000.0	4169500.0	8.29108	(31, 9)	608000.0	4170500.0	4.70729	(282, 3)
609000.0	4170500.0	6.10101	(8, 7)	606000.0	4170500.0	3.17992	(120, 5)
607000.0	4170500.0	3.99876	(118, 4)	606000.0	4169500.0	3.13508	(363, 17)
607000.0	4169500.0	3.50013	(53, 1)	606000.0	4168500.0	3.29324	(294, 18)
614600.0	4170150.0	61.59298	(44, 22)	614850.0	4170150.0	63.24398	(317, 6)
615100.0	4170150.0	66.59386	(10, 3)	615350.0	4170150.0	58.89594	(88, 7)
614850.0	4169900.0	69.30048	(30, 24)	615100.0	4169900.0	65.41090	(333, 7)
615350.0	4169900.0	60.28968	(315, 4)	615900.0	4172900.0	48.64951	(165, 22)
616400.0	4172900.0	61.73677	(297, 1)	616700.0	4172900.0	58.01340	(335, 24)
617000.0	4172900.0	53.42767	(52, 8)	614900.0	4171050.0	96.20132	(75, 18)
615000.0	4171050.0	89.88007	(287, 17)	615100.0	4171050.0	92.35654	(322, 11)
615200.0	4171050.0	84.18722	(103, 18)	615300.0	4171050.0	73.16862	(269, 7)
614900.0	4171150.0	143.80775	(224, 17)	615000.0	4171150.0	121.58855	(206, 17)
615100.0	4171150.0	97.83157	(212, 18)	615200.0	4171150.0	94.50326	(325, 11)
615300.0	4171150.0	91.44891	(325, 11)	614900.0	4171250.0	93.68773	(119, 12)
615000.0	4171250.0	93.93131	(107, 14)	615200.0	4171250.0	84.08560	(153, 19)
615300.0	4171250.0	77.43397	(287, 8)	614900.0	4171350.0	71.78401	(83, 15)
615000.0	4171350.0	73.60605	(164, 19)	615100.0	4171350.0	74.74505	(247, 18)
615200.0	4171350.0	69.80927	(242, 19)	615300.0	4171350.0	59.33372	(137, 9)
614900.0	4171450.0	56.95132	(356, 14)	615000.0	4171450.0	60.53271	(5, 10)
615100.0	4171450.0	62.21100	(209, 7)	615200.0	4171450.0	57.73544	(159, 8)
615300.0	4171450.0	53.57353	(175, 19)				

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat jor11/0 ***

* 50 MAXIMUM 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 101,

RANK	CON.	HOUR	DAY	X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	RANK	CON.	HOUR	DAY	X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)
1	145.42004	11	121	614900.0	4171050.0	26	118.11995	16	214	615000.0	4171150.0
2	145.20035	14	121	614900.0	4171150.0	27	117.81847	17	301	615000.0	4171150.0
3	143.80775	17	224	614900.0	4171150.0	28	117.73483	16	234	615000.0	4171150.0
4	141.15364	16	172	614900.0	4171150.0	29	117.72913	14	144	615000.0	4171150.0
5	137.36707	18	227	614900.0	4171150.0	30	117.68369	17	306	615000.0	4171150.0
6	133.95857	18	189	614900.0	4171150.0	31	117.66475	16	161	615000.0	4171150.0
7	130.25557	18	106	614900.0	4171150.0	32	117.58109	19	171	615000.0	4171150.0
8	130.23804	16	224	614900.0	4171150.0	33	117.50430	17	226	615000.0	4171150.0
9	129.33195	16	218	614900.0	4171150.0	34	117.42098	17	217	615000.0	4171150.0
10	128.98895	18	176	614900.0	4171150.0	35	117.37231	18	104	615000.0	4171150.0
11	128.95163	16	280	614900.0	4171150.0	36	117.04499	16	279	615000.0	4171150.0
12	128.82506	18	225	614900.0	4171150.0	37	117.02546	18	223	615000.0	4171150.0
13	128.56192	19	160	614900.0	4171150.0	38	116.94312	18	235	615000.0	4171150.0
14	125.79977	16	322	615000.0	4171050.0	39	116.65451	17	161	615000.0	4171150.0
15	125.66982	17	172	614900.0	4171150.0	40	116.43311	17	228	615000.0	4171150.0
16	122.72655	15	172	614900.0	4171150.0	41	116.19490	11	94	615000.0	4171150.0
17	121.68702	17	201	615000.0	4171150.0	42	115.87824	17	176	614900.0	4171150.0
18	121.58855	17	206	615000.0	4171150.0	43	115.69193	17	183	615000.0	4171150.0
19	121.34930	18	268	614900.0	4171150.0	44	115.40696	17	145	615000.0	4171150.0
20	120.55399	18	211	615000.0	4171150.0	45	115.17265	16	227	615000.0	4171150.0
21	119.73322	20	176	615000.0	4171150.0	46	115.11158	8	253	615100.0	4171500.0
22	119.36319	18	269	615000.0	4171150.0	47	114.82633	16	104	615000.0	4171150.0
23	118.75842	17	118	615000.0	4171150.0	48	114.64345	17	233	614900.0	4171150.0
24	118.73911	19	161	615000.0	4171150.0	49	114.30028	19	202	615000.0	4171150.0
25	118.35049	17	280	614900.0	4171150.0	50	114.00278	19	224	614900.0	4171150.0

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat jor11/0 ***

* 352-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	- X -	- Y -	CON.	- X -	- Y -	CON.
614600.0	4171000.0	16.71736	614850.0	4171000.0	11.88380	615100.0	4171000.0	3.63704
615350.0	4171000.0	2.36602	615600.0	4171000.0	2.25491	615850.0	4171000.0	1.87579
616100.0	4171000.0	1.51397	616350.0	4171000.0	1.21628	616600.0	4171000.0	0.99212
614600.0	4171250.0	77.42028	614850.0	4171250.0	134.79877	615100.0	4171250.0	21.82158
615350.0	4171250.0	8.39270	615600.0	4171250.0	4.55697	615850.0	4171250.0	2.90835
616100.0	4171250.0	2.03350	616350.0	4171250.0	1.51057	616600.0	4171250.0	1.18040
614600.0	4171500.0	7.90252	614850.0	4171500.0	9.26557	615100.0	4171500.0	16.94893
615350.0	4171500.0	11.48625	615600.0	4171500.0	6.30725	615850.0	4171500.0	3.65696
616100.0	4171500.0	2.51097	616350.0	4171500.0	1.92676	616600.0	4171500.0	1.53078
614600.0	4171750.0	3.37437	614850.0	4171750.0	3.77043	615100.0	4171750.0	4.85862
615350.0	4171750.0	6.78747	615600.0	4171750.0	6.14718	615850.0	4171750.0	4.72500
616100.0	4171750.0	3.20977	616350.0	4171750.0	2.24824	616600.0	4171750.0	1.66410
614600.0	4172000.0	1.84128	614850.0	4172000.0	2.43375	615100.0	4172000.0	2.48497
615350.0	4172000.0	3.48226	615600.0	4172000.0	4.12469	615850.0	4172000.0	3.90976
616100.0	4172000.0	3.11267	616350.0	4172000.0	2.66464	616600.0	4172000.0	2.03851
614600.0	4172250.0	1.28479	614850.0	4172250.0	1.72769	615100.0	4172250.0	1.78090
615350.0	4172250.0	2.18099	615600.0	4172250.0	2.70619	615850.0	4172250.0	2.73671
616100.0	4172250.0	2.70508	616350.0	4172250.0	2.35361	616600.0	4172250.0	2.00144
614600.0	4172500.0	1.04551	614850.0	4172500.0	1.24749	615100.0	4172500.0	1.27851
615350.0	4172500.0	1.41833	615600.0	4172500.0	1.62536	615850.0	4172500.0	1.99576
616100.0	4172500.0	1.99093	616350.0	4172500.0	2.01252	616600.0	4172500.0	1.84202
616170.0	4172880.0	1.36551	612700.0	4170900.0	0.80502	612700.0	4170800.0	0.67058
612700.0	4170700.0	0.62146	612700.0	4170600.0	0.55759	612700.0	4170500.0	0.53346
612700.0	4170400.0	0.56283	612700.0	4170300.0	0.54525	612700.0	4170200.0	0.48884
612700.0	4170100.0	0.44820	615900.0	4169300.0	0.29992	613450.0	4172500.0	0.84550
613450.0	4172400.0	0.91637	613450.0	4172300.0	1.00153	613450.0	4172200.0	1.39704
613450.0	4172100.0	1.83169	613450.0	4172000.0	2.33910	613450.0	4171900.0	2.49302
613450.0	4171800.0	2.79926	613450.0	4171700.0	3.27151	613450.0	4171600.0	3.47675
613450.0	4171500.0	3.60203	613450.0	4171400.0	3.43351	613450.0	4171300.0	2.98313
613450.0	4171200.0	2.64794	613450.0	4171100.0	2.14219	613450.0	4171000.0	1.84693
613000.0	4172800.0	0.56452	613000.0	4172600.0	0.73815	613000.0	4172400.0	1.15855
613000.0	4172200.0	1.50474	613000.0	4172000.0	1.76439	613000.0	4171800.0	2.11700
613000.0	4171600.0	2.23219	613000.0	4171400.0	1.89630	613000.0	4171200.0	1.51132
613000.0	4171000.0	1.16329	613000.0	4170800.0	0.85655	613200.0	4170800.0	0.97286
613400.0	4170800.0	1.13136	613600.0	4170800.0	1.42775	613800.0	4170800.0	2.08149
614000.0	4170800.0	2.59434	614200.0	4170800.0	3.93490	614400.0	4170800.0	5.43556
614600.0	4170800.0	7.25750	614850.0	4170800.0	4.61856	615100.0	4170800.0	2.15729
615350.0	4170800.0	1.55008	615600.0	4170800.0	1.03669	615850.0	4170800.0	0.75288

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MatDat for11/0 ***

* 352-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	- X -	- Y -	CON.	- X -	- Y -	CON.
613000.0	4170400.0	0.71698	613200.0	4170400.0	0.77391	613400.0	4170400.0	1.02186
613600.0	4170400.0	1.20992	613800.0	4170400.0	1.29931	614000.0	4170400.0	1.83929
614200.0	4170400.0	1.93336	614400.0	4170400.0	2.59763	614600.0	4170400.0	1.45357
614850.0	4170400.0	1.67642	615100.0	4170400.0	1.26079	615350.0	4170400.0	0.93548
615600.0	4170400.0	0.57220	615850.0	4170400.0	0.57735	608000.0	4166500.0	0.04964
611000.0	4165500.0	0.11040	613000.0	4167500.0	0.23006	615000.0	4166500.0	0.12687
616000.0	4169500.0	0.29292	616000.0	4172500.0	1.94546	614000.0	4174500.0	0.20765
616000.0	4175500.0	0.26443	614000.0	4177500.0	0.14603	606000.0	4174500.0	0.19019
609000.0	4174500.0	0.40536	612000.0	4174500.0	0.22734	609000.0	4173500.0	0.22252
610000.0	4175500.0	0.12641	610000.0	4173500.0	0.46642	608000.0	4177500.0	0.12435
611000.0	4177500.0	0.09771	606000.0	4171500.0	0.08253	606000.0	4172500.0	0.08484
607000.0	4172500.0	0.12757	607000.0	4171500.0	0.10611	608000.0	4172500.0	0.18556
608000.0	4171500.0	0.14066	609000.0	4172500.0	0.38361	610000.0	4172500.0	0.63458
610000.0	4171500.0	0.28904	612000.0	4171500.0	0.80044	611000.0	4169500.0	0.22887
612000.0	4170500.0	0.37821	611000.0	4172500.0	0.56697	613000.0	4172500.0	0.97120
612000.0	4173500.0	0.30206	608000.0	4169500.0	0.07630	609000.0	4169500.0	0.09144
610000.0	4169500.0	0.13823	608000.0	4170500.0	0.10499	609000.0	4170500.0	0.14678
606000.0	4170500.0	0.05975	607000.0	4170500.0	0.08145	606000.0	4169500.0	0.03970
607000.0	4169500.0	0.05271	606000.0	4168500.0	0.03410	614600.0	4170150.0	0.95486
614850.0	4170150.0	1.15862	615100.0	4170150.0	0.85501	615350.0	4170150.0	0.79323
614850.0	4169900.0	0.85607	615100.0	4169900.0	0.68426	615350.0	4169900.0	0.59077
615900.0	4172900.0	1.07798	616400.0	4172900.0	1.30818	616700.0	4172900.0	1.36060
617000.0	4172900.0	1.29691	614900.0	4171050.0	9.86055	615000.0	4171050.0	6.25293
615100.0	4171050.0	4.89957	615200.0	4171050.0	4.08646	615300.0	4171050.0	3.94888
614900.0	4171150.0	37.82029	615000.0	4171150.0	22.83325	615100.0	4171150.0	14.33930
615200.0	4171150.0	9.76502	615300.0	4171150.0	7.04873	614900.0	4171250.0	93.61584
615000.0	4171250.0	38.58247	615200.0	4171250.0	14.13458	615300.0	4171250.0	9.83813
614900.0	4171350.0	39.32504	615000.0	4171350.0	38.71308	615100.0	4171350.0	27.36305
615200.0	4171350.0	17.12831	615300.0	4171350.0	11.27121	614900.0	4171450.0	15.07928
615000.0	4171450.0	20.56328	615100.0	4171450.0	21.31919	615200.0	4171450.0	16.87585
615300.0	4171450.0	13.33299						

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat for11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
614600.0	4171000.0	2266.63428	(289, 22)	614850.0	4171000.0	2636.16357	(17, 24)
615100.0	4171000.0	1500.10437	(248, 22)	615350.0	4171000.0	782.06744	(83, 7)
615600.0	4171000.0	624.23846	(93, 4)	615850.0	4171000.0	426.21625	(279, 1)
616100.0	4171000.0	337.52960	(28, 5)	616350.0	4171000.0	267.52957	(279, 4)
616600.0	4171000.0	224.33049	(279, 4)	614600.0	4171250.0	2685.99219	(291, 4)
614850.0	4171250.0	7502.25879	(191, 7)	615100.0	4171250.0	1755.89514	(208, 24)
615350.0	4171250.0	954.96570	(245, 7)	615600.0	4171250.0	617.63873	(9, 24)
615850.0	4171250.0	457.53290	(9, 24)	616100.0	4171250.0	351.99368	(315, 7)
616350.0	4171250.0	269.75275	(315, 7)	616600.0	4171250.0	232.69711	(14, 20)
614600.0	4171500.0	1160.92908	(183, 3)	614850.0	4171500.0	1354.98718	(61, 18)
615100.0	4171500.0	1128.46570	(250, 4)	615350.0	4171500.0	1008.84344	(191, 7)
615600.0	4171500.0	573.09753	(236, 4)	615850.0	4171500.0	401.51083	(288, 3)
616100.0	4171500.0	301.05215	(279, 2)	616350.0	4171500.0	274.57727	(145, 7)
616600.0	4171500.0	284.78644	(145, 7)	614600.0	4171750.0	668.30670	(239, 7)
614850.0	4171750.0	649.30695	(75, 7)	615100.0	4171750.0	622.78296	(153, 22)
615350.0	4171750.0	575.13617	(26, 20)	615600.0	4171750.0	1358.11194	(191, 7)
615850.0	4171750.0	423.83368	(191, 7)	616100.0	4171750.0	308.09033	(247, 4)
616350.0	4171750.0	247.03401	(106, 5)	616600.0	4171750.0	215.93065	(288, 3)
614600.0	4172000.0	427.96759	(249, 2)	614850.0	4172000.0	476.11490	(198, 1)
615100.0	4172000.0	469.54935	(237, 2)	615350.0	4172000.0	426.18069	(230, 22)
615600.0	4172000.0	402.32840	(26, 20)	615850.0	4172000.0	681.23529	(191, 7)
616100.0	4172000.0	854.68378	(191, 7)	616350.0	4172000.0	250.78288	(191, 7)
616600.0	4172000.0	203.59888	(182, 24)	614600.0	4172250.0	300.36310	(183, 2)
614850.0	4172250.0	364.07660	(293, 20)	615100.0	4172250.0	497.06754	(61, 18)
615350.0	4172250.0	372.91385	(66, 21)	615600.0	4172250.0	326.11160	(2, 6)
615850.0	4172250.0	284.96838	(26, 20)	616100.0	4172250.0	363.01434	(266, 8)
616350.0	4172250.0	776.77728	(191, 7)	616600.0	4172250.0	525.66510	(191, 7)
614600.0	4172500.0	241.20213	(249, 5)	614850.0	4172500.0	299.69232	(166, 7)
615100.0	4172500.0	296.93320	(210, 4)	615350.0	4172500.0	293.99057	(277, 6)
615600.0	4172500.0	257.65628	(29, 8)	615850.0	4172500.0	250.49435	(27, 3)
616100.0	4172500.0	218.08919	(26, 20)	616350.0	4172500.0	261.81735	(266, 8)
616600.0	4172500.0	542.42621	(191, 7)	616170.0	4172880.0	178.31183	(27, 3)
612700.0	4170900.0	134.84093	(310, 4)	612700.0	4170800.0	134.67384	(141, 23)
612700.0	4170700.0	143.24356	(267, 22)	612700.0	4170600.0	143.14212	(321, 4)
612700.0	4170500.0	139.46814	(25, 5)	612700.0	4170400.0	137.63733	(57, 4)
612700.0	4170300.0	132.11705	(139, 24)	612700.0	4170200.0	125.13213	(88, 22)
612700.0	4170100.0	124.00505	(211, 23)	615900.0	4169300.0	172.90823	(55, 4)
613450.0	4172500.0	113.04311	(58, 7)	613450.0	4172400.0	124.25539	(170, 24)

2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat for 11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
613450.0	4172300.0	132.10930	(273, 7)	613450.0	4172200.0	143.17552	(86, 7)
613450.0	4172100.0	151.17621	(57, 20)	613450.0	4172000.0	163.32616	(171, 2)
613450.0	4171900.0	177.04839	(238, 23)	613450.0	4171800.0	186.07608	(78, 4)
613450.0	4171700.0	207.75662	(289, 23)	613450.0	4171600.0	222.81731	(291, 1)
613450.0	4171500.0	238.92511	(171, 3)	613450.0	4171400.0	249.01585	(171, 6)
613450.0	4171300.0	277.73785	(254, 22)	613450.0	4171200.0	291.14902	(198, 24)
613450.0	4171100.0	295.56061	(141, 3)	613450.0	4171000.0	300.04004	(310, 4)
613000.0	4172800.0	79.94226	(170, 24)	613000.0	4172600.0	87.16216	(255, 21)
613000.0	4172400.0	97.57433	(57, 20)	613000.0	4172200.0	106.82139	(14, 19)
613000.0	4172000.0	124.04328	(118, 1)	613000.0	4171800.0	137.25070	(189, 1)
613000.0	4171600.0	151.90924	(39, 23)	613000.0	4171400.0	167.74760	(289, 21)
613000.0	4171200.0	172.80501	(141, 4)	613000.0	4171000.0	174.72151	(275, 1)
613000.0	4170800.0	187.92178	(198, 23)	613200.0	4170800.0	220.17976	(183, 4)
613400.0	4170800.0	270.18445	(321, 4)	613600.0	4170800.0	342.67117	(25, 5)
613800.0	4170800.0	451.53204	(248, 7)	614000.0	4170800.0	593.53217	(23, 5)
614200.0	4170800.0	796.72528	(337, 3)	614400.0	4170800.0	1036.78137	(85, 21)
614600.0	4170800.0	1383.42896	(88, 23)	614850.0	4170800.0	1571.60901	(142, 7)
615100.0	4170800.0	1065.37000	(74, 23)	615350.0	4170800.0	771.64514	(106, 7)
615600.0	4170800.0	498.63107	(70, 20)	615850.0	4170800.0	420.54187	(326, 7)
613000.0	4170400.0	176.01707	(9, 7)	613200.0	4170400.0	206.62103	(23, 5)
613400.0	4170400.0	244.91757	(140, 4)	613600.0	4170400.0	292.30075	(111, 24)
613800.0	4170400.0	350.66797	(57, 6)	614000.0	4170400.0	449.84589	(16, 1)
614200.0	4170400.0	515.26892	(354, 2)	614400.0	4170400.0	615.29034	(333, 4)
614600.0	4170400.0	681.61774	(320, 2)	614850.0	4170400.0	684.94550	(307, 5)
615100.0	4170400.0	615.28979	(278, 5)	615350.0	4170400.0	504.26740	(320, 21)
615600.0	4170400.0	406.39087	(247, 1)	615850.0	4170400.0	338.14520	(362, 8)
608000.0	4166500.0	13.40088	(347, 24)	611000.0	4165500.0	39.43846	(347, 1)
613000.0	4167500.0	78.31749	(85, 24)	615000.0	4166500.0	85.61561	(188, 7)
616000.0	4169500.0	172.38988	(114, 4)	616000.0	4172500.0	227.07326	(153, 24)
614000.0	4174500.0	56.82080	(28, 22)	616000.0	4175500.0	104.82624	(61, 18)
614000.0	4177500.0	44.29422	(26, 6)	606000.0	4174500.0	15.66894	(15, 21)
609000.0	4174500.0	38.76505	(198, 5)	612000.0	4174500.0	32.32656	(20, 1)
609000.0	4173500.0	15.60630	(32, 20)	610000.0	4175500.0	20.75619	(43, 7)
610000.0	4173500.0	41.69054	(45, 20)	608000.0	4177500.0	22.61053	(3, 24)
611000.0	4177500.0	27.19591	(43, 20)	606000.0	4171500.0	8.95939	(182, 2)
606000.0	4172500.0	6.97886	(274, 24)	607000.0	4172500.0	10.11065	(171, 6)
607000.0	4171500.0	11.19571	(12, 4)	608000.0	4172500.0	14.53773	(198, 21)
608000.0	4171500.0	14.95150	(60, 1)	609000.0	4172500.0	32.48621	(101, 20)

2

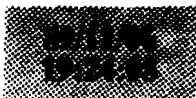
*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat for 11/0 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,

* FOR THE DISCRETE RECEPTOR POINTS *

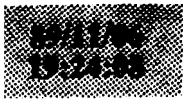
- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
610000.0	4172500.0	49.26263	(189, 4)	610000.0	4171500.0	31.31989	(294, 24)
612000.0	4171500.0	75.45969	(56, 21)	611000.0	4169500.0	62.57827	(9, 7)
612000.0	4170500.0	93.32298	(183, 4)	611000.0	4172500.0	39.78804	(101, 24)
613000.0	4172500.0	94.23368	(80, 4)	612000.0	4173500.0	43.11578	(268, 5)
608000.0	4169500.0	20.00977	(183, 4)	609000.0	4169500.0	26.09460	(321, 4)
610000.0	4169500.0	37.29681	(311, 24)	608000.0	4170500.0	16.61385	(73, 3)
609000.0	4170500.0	24.72448	(344, 19)	606000.0	4170500.0	8.62610	(141, 3)
607000.0	4170500.0	12.72098	(141, 24)	606000.0	4169500.0	8.59978	(141, 23)
607000.0	4169500.0	12.47803	(198, 23)	606000.0	4168500.0	9.37248	(12, 6)
614600.0	4170150.0	479.78876	(324, 2)	614850.0	4170150.0	477.09531	(314, 20)
615100.0	4170150.0	450.98203	(10, 3)	615350.0	4170150.0	340.70718	(17, 24)
614850.0	4169900.0	360.88428	(30, 24)	615100.0	4169900.0	523.10028	(142, 7)
615350.0	4169900.0	319.07294	(334, 21)	615900.0	4172900.0	194.51875	(55, 7)
616400.0	4172900.0	161.07997	(136, 6)	616700.0	4172900.0	140.59058	(10, 6)
617000.0	4172900.0	265.51398	(191, 7)	614900.0	4171050.0	2625.33423	(247, 1)
615000.0	4171050.0	2023.94751	(248, 22)	615100.0	4171050.0	1443.08093	(326, 7)
615200.0	4171050.0	1184.30481	(256, 2)	615300.0	4171050.0	1038.11316	(297, 20)
614900.0	4171150.0	3742.40527	(175, 2)	615000.0	4171150.0	2351.96240	(279, 4)
615100.0	4171150.0	1803.09827	(318, 4)	615200.0	4171150.0	1254.12146	(318, 4)
615300.0	4171150.0	851.40649	(228, 23)	614900.0	4171250.0	3087.07324	(182, 24)
615000.0	4171250.0	2217.70264	(239, 22)	615200.0	4171250.0	1343.87012	(337, 6)
615300.0	4171250.0	1064.52686	(245, 7)	614900.0	4171350.0	2183.87012	(30, 7)
615000.0	4171350.0	3819.70337	(191, 7)	615100.0	4171350.0	1496.82678	(3, 23)
615200.0	4171350.0	1219.59961	(236, 4)	615300.0	4171350.0	989.94006	(288, 3)
614900.0	4171450.0	1576.61646	(66, 21)	615000.0	4171450.0	1432.85925	(153, 24)
615100.0	4171450.0	1686.93994	(191, 7)	615200.0	4171450.0	2229.48169	(191, 7)
615300.0	4171450.0	875.76007	(3, 23)				



*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
614600.0	4171000.0	2266.63403	(270, 5)	614850.0	4171000.0	2636.16357	(70, 21)
615100.0	4171000.0	1446.95801	(324, 4)	615350.0	4171000.0	747.95856	(9, 19)
615600.0	4171000.0	624.23846	(204, 5)	615850.0	4171000.0	426.21625	(323, 4)
616100.0	4171000.0	337.52960	(271, 1)	616350.0	4171000.0	243.20872	(182, 23)
616600.0	4171000.0	222.77367	(318, 4)	614600.0	4171250.0	2685.99170	(118, 1)
614850.0	4171250.0	3520.00708	(179, 3)	615100.0	4171250.0	1712.11060	(55, 5)
615350.0	4171250.0	868.15063	(145, 4)	615600.0	4171250.0	478.17941	(315, 7)
615850.0	4171250.0	442.84225	(315, 7)	616100.0	4171250.0	351.99368	(337, 7)
616350.0	4171250.0	269.75275	(337, 7)	616600.0	4171250.0	232.69711	(246, 24)
614600.0	4171500.0	1160.92883	(266, 4)	614850.0	4171500.0	1348.63928	(170, 2)
615100.0	4171500.0	1128.46570	(339, 21)	615350.0	4171500.0	785.81390	(154, 1)
615600.0	4171500.0	573.09753	(329, 5)	615850.0	4171500.0	364.08215	(239, 22)
616100.0	4171500.0	289.25027	(221, 24)	616350.0	4171500.0	265.28168	(208, 24)
616600.0	4171500.0	208.00883	(337, 6)	614600.0	4171750.0	668.30658	(293, 3)
614850.0	4171750.0	649.30695	(113, 23)	615100.0	4171750.0	622.78284	(29, 8)
615350.0	4171750.0	575.13617	(268, 7)	615600.0	4171750.0	485.85724	(179, 3)
615850.0	4171750.0	377.23203	(240, 6)	616100.0	4171750.0	308.09033	(362, 4)
616350.0	4171750.0	247.03401	(171, 1)	616600.0	4171750.0	195.51450	(199, 22)
614600.0	4172000.0	427.96747	(355, 3)	614850.0	4172000.0	476.11490	(295, 21)
615100.0	4172000.0	435.51700	(290, 3)	615350.0	4172000.0	426.18066	(336, 22)
615600.0	4172000.0	402.32840	(268, 7)	615850.0	4172000.0	473.80118	(266, 8)
616100.0	4172000.0	275.36826	(190, 7)	616350.0	4172000.0	236.95256	(240, 6)
616600.0	4172000.0	203.59888	(336, 4)	614600.0	4172250.0	300.36310	(292, 22)
614850.0	4172250.0	364.07651	(347, 5)	615100.0	4172250.0	381.83771	(51, 2)
615350.0	4172250.0	372.91382	(297, 6)	615600.0	4172250.0	326.11160	(229, 24)
615850.0	4172250.0	284.96838	(268, 7)	616100.0	4172250.0	316.66309	(191, 7)
616350.0	4172250.0	243.17467	(266, 8)	616600.0	4172250.0	222.41023	(190, 7)
614600.0	4172500.0	241.20210	(184, 4)	614850.0	4172500.0	273.52252	(336, 21)
615100.0	4172500.0	296.93317	(278, 6)	615350.0	4172500.0	293.99057	(290, 3)
615600.0	4172500.0	257.65628	(153, 22)	615850.0	4172500.0	250.49435	(106, 1)
616100.0	4172500.0	218.08919	(268, 7)	616350.0	4172500.0	189.67754	(237, 21)
616600.0	4172500.0	279.83942	(266, 8)	616170.0	4172880.0	178.31183	(106, 1)
612700.0	4170900.0	134.84091	(2, 7)	612700.0	4170800.0	134.67384	(231, 22)
612700.0	4170700.0	143.24355	(179, 6)	612700.0	4170600.0	143.14212	(352, 5)
612700.0	4170500.0	139.46814	(64, 1)	612700.0	4170400.0	137.63733	(62, 22)
612700.0	4170300.0	132.11703	(36, 5)	612700.0	4170200.0	125.13213	(357, 4)
612700.0	4170100.0	124.00505	(332, 18)	615900.0	4169300.0	172.90823	(106, 6)
613450.0	4172500.0	113.04311	(230, 21)	613450.0	4172400.0	124.25539	(294, 21)



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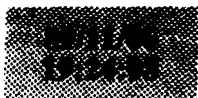
*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,

* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
613450.0	4172300.0	132.10928	(352, 24)	613450.0	4172200.0	143.17552	(118, 5)
613450.0	4172100.0	151.17621	(238, 6)	613450.0	4172000.0	163.32613	(97, 6)
613450.0	4171900.0	177.04839	(291, 22)	613450.0	4171800.0	186.07608	(85, 7)
613450.0	4171700.0	207.75658	(101, 5)	613450.0	4171600.0	222.81728	(170, 4)
613450.0	4171500.0	238.92511	(273, 23)	613450.0	4171400.0	249.01585	(232, 2)
613450.0	4171300.0	277.73785	(304, 20)	613450.0	4171200.0	291.14902	(238, 1)
613450.0	4171100.0	295.56058	(50, 21)	613450.0	4171000.0	300.04001	(2, 7)
613000.0	4172800.0	79.94226	(294, 21)	613000.0	4172600.0	87.16215	(78, 24)
613000.0	4172400.0	97.57433	(238, 6)	613000.0	4172200.0	106.82139	(52, 21)
613000.0	4172000.0	124.04328	(132, 5)	613000.0	4171800.0	137.25070	(231, 23)
613000.0	4171600.0	151.90924	(78, 23)	613000.0	4171400.0	167.74759	(56, 21)
613000.0	4171200.0	172.80501	(141, 6)	613000.0	4171000.0	174.72151	(287, 32)
613000.0	4170800.0	187.92174	(44, 1)	613200.0	4170800.0	220.17975	(34, 24)
613400.0	4170800.0	270.18445	(352, 5)	613600.0	4170800.0	342.67117	(64, 1)
613800.0	4170800.0	451.53204	(291, 23)	614000.0	4170800.0	552.84314	(88, 22)
614200.0	4170800.0	796.72528	(347, 24)	614400.0	4170800.0	1036.78125	(2, 21)
614600.0	4170800.0	1383.42896	(113, 24)	614850.0	4170800.0	1464.31030	(111, 6)
615100.0	4170800.0	961.33728	(344, 7)	615350.0	4170800.0	771.64514	(130, 6)
615600.0	4170800.0	432.68408	(207, 22)	615850.0	4170800.0	371.26709	(83, 7)
613000.0	4170400.0	176.01707	(320, 3)	613200.0	4170400.0	195.81120	(88, 22)
613400.0	4170400.0	244.91757	(293, 6)	613600.0	4170400.0	292.30075	(118, 6)
613800.0	4170400.0	350.66797	(247, 2)	614000.0	4170400.0	449.84589	(315, 8)
614200.0	4170400.0	483.95233	(346, 22)	614400.0	4170400.0	615.29034	(345, 1)
614600.0	4170400.0	447.58469	(315, 2)	614850.0	4170400.0	684.94550	(324, 24)
615100.0	4170400.0	575.02393	(334, 21)	615350.0	4170400.0	504.26740	(341, 20)
615600.0	4170400.0	294.93109	(287, 21)	615850.0	4170400.0	324.44052	(29, 7)
608000.0	4166500.0	13.40088	(337, 3)	611000.0	4165500.0	39.43846	(363, 19)
613000.0	4167500.0	78.31749	(338, 23)	615000.0	4166500.0	67.34033	(271, 5)
616000.0	4169500.0	172.38988	(340, 4)	616000.0	4172500.0	227.07326	(297, 3)
614000.0	4174500.0	56.82080	(144, 5)	616000.0	4175500.0	70.62868	(133, 5)
614000.0	4177500.0	44.29422	(27, 5)	606000.0	4174500.0	15.66894	(67, 2)
609000.0	4174500.0	38.76505	(283, 1)	612000.0	4174500.0	32.32656	(27, 6)
609000.0	4173500.0	15.60630	(101, 5)	610000.0	4175500.0	20.75619	(45, 22)
610000.0	4173500.0	41.69054	(132, 6)	608000.0	4177500.0	22.61053	(26, 8)
611000.0	4177500.0	27.19591	(62, 24)	606000.0	4171500.0	8.95939	(283, 3)
606000.0	4172500.0	6.97886	(67, 21)	607000.0	4172500.0	10.11065	(232, 2)
607000.0	4171500.0	11.19571	(12, 21)	608000.0	4172500.0	14.53773	(309, 19)
608000.0	4171500.0	14.95150	(117, 23)	609000.0	4172500.0	32.48621	(273, 21)



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2ND H1
1-HF
SGROU

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*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MatDat jor11/0 ***

* SECOND HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 102,
* FOR THE DISCRETE RECEPTOR POINTS *

- X -	- Y -	CON.	(DAY, HOUR)	- X -	- Y -	CON.	(DAY, HOUR)
610000.0	4172500.0	49.26263	(230, 6)	610000.0	4171500.0	31.31988	(28, 6)
612000.0	4171500.0	75.45969	(102, 4)	611000.0	4169500.0	62.57827	(320, 3)
612000.0	4170500.0	93.32298	(294, 5)	611000.0	4172500.0	39.78804	(290, 22)
613000.0	4172500.0	94.23368	(282, 5)	612000.0	4173500.0	43.11578	(289, 6)
608000.0	4169500.0	20.00977	(294, 5)	609000.0	4169500.0	26.09460	(352, 5)
610000.0	4169500.0	37.29680	(31, 5)	608000.0	4170500.0	16.61385	(275, 1)
609000.0	4170500.0	24.72448	(348, 18)	606000.0	4170500.0	8.62610	(36, 23)
607000.0	4170500.0	12.72098	(140, 23)	606000.0	4169500.0	8.59978	(231, 22)
607000.0	4169500.0	12.47802	(44, 1)	606000.0	4168500.0	9.37248	(346, 1)
614600.0	4170150.0	406.34967	(345, 3)	614850.0	4170150.0	472.55862	(317, 6)
615100.0	4170150.0	426.07291	(312, 3)	615350.0	4170150.0	340.70718	(70, 21)
614850.0	4169900.0	360.88428	(192, 6)	615100.0	4169900.0	329.51459	(318, 7)
615350.0	4169900.0	277.09885	(278, 5)	615900.0	4172900.0	164.77762	(165, 22)
616400.0	4172900.0	161.07997	(197, 23)	616700.0	4172900.0	140.59058	(278, 22)
617000.0	4172900.0	248.18469	(266, 8)	614900.0	4171050.0	2487.56104	(287, 21)
615000.0	4171050.0	2018.79260	(324, 4)	615100.0	4171050.0	1375.98279	(319, 18)
615200.0	4171050.0	999.38483	(9, 19)	615300.0	4171050.0	1038.11316	(313, 4)
614900.0	4171150.0	3693.74048	(93, 4)	615000.0	4171150.0	2275.61621	(28, 5)
615100.0	4171150.0	1602.46655	(279, 4)	615200.0	4171150.0	1024.67371	(228, 23)
615300.0	4171150.0	809.74091	(318, 4)	614900.0	4171250.0	3087.07227	(336, 4)
615000.0	4171250.0	2217.70264	(247, 21)	615200.0	4171250.0	1275.44312	(354, 5)
615300.0	4171250.0	1021.01385	(354, 5)	614900.0	4171350.0	2183.87012	(106, 4)
615000.0	4171350.0	1815.33838	(179, 3)	615100.0	4171350.0	1496.82678	(145, 5)
615200.0	4171350.0	1219.59961	(329, 5)	615300.0	4171350.0	938.44031	(199, 22)
614900.0	4171450.0	1576.61609	(297, 6)	615000.0	4171450.0	1432.85913	(297, 3)
615100.0	4171450.0	1254.86230	(266, 8)	615200.0	4171450.0	1052.76794	(4, 1)
615300.0	4171450.0	875.76007	(23, 7)				

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MAX 50
1-HR
SGROUP #

2

*** LLNL HRA, ISCST Final Receptor Set, LLNL 1988 MetDat for11/0 ***

* 50 MAXIMUM 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 102,

RANK	CON.	HOUR	DAY	X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	RANK	CON.	HOUR	DAY	X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)
1	7502.25879	7	191	614850.0	4171250.0	26	2933.33887	22	313	614850.0	4171250.0
2	3819.70337	7	191	615000.0	4171350.0	27	2926.35913	6	320	614900.0	4171150.0
3	3742.40527	2	175	614900.0	4171150.0	28	2896.73315	22	238	614850.0	4171250.0
4	3693.74048	5	204	614900.0	4171150.0	29	2896.73291	24	180	614850.0	4171250.0
5	3693.74048	4	93	614900.0	4171150.0	30	2896.73242	8	52	614850.0	4171250.0
6	3539.36108	24	346	614900.0	4171150.0	31	2879.04199	1	10	614850.0	4171250.0
7	3539.36108	4	323	614900.0	4171150.0	32	2806.42993	7	277	614900.0	4171250.0
8	3539.36108	1	279	614900.0	4171150.0	33	2797.30518	8	241	614850.0	4171250.0
9	3520.00708	2	252	614850.0	4171250.0	34	2797.30469	8	251	614850.0	4171250.0
10	3520.00708	3	179	614850.0	4171250.0	35	2789.98267	4	247	614900.0	4171250.0
11	3502.16626	23	239	614850.0	4171250.0	36	2789.98193	4	362	614900.0	4171250.0
12	3403.03467	2	346	614900.0	4171150.0	37	2771.91626	17	319	614900.0	4171150.0
13	3403.03467	4	313	614900.0	4171150.0	38	2745.83984	20	295	614850.0	4171250.0
14	3403.03467	20	297	614900.0	4171150.0	39	2722.68921	3	318	614900.0	4171250.0
15	3269.01538	8	266	614850.0	4171250.0	40	2722.68921	5	299	614900.0	4171250.0
16	3218.16919	4	288	614850.0	4171250.0	41	2722.68921	6	240	614900.0	4171250.0
17	3116.66260	22	48	614850.0	4171250.0	42	2722.68896	1	349	614900.0	4171250.0
18	3087.07324	24	182	614900.0	4171250.0	43	2694.97534	22	9	614900.0	4171150.0
19	3087.07227	4	336	614900.0	4171250.0	44	2685.99219	4	291	614600.0	4171250.0
20	2983.70459	5	296	614900.0	4171250.0	45	2685.99170	19	339	614600.0	4171250.0
21	2983.70459	5	145	614900.0	4171250.0	46	2685.99170	5	267	614600.0	4171250.0
22	2983.70459	23	3	614900.0	4171250.0	47	2685.99170	3	144	614600.0	4171250.0
23	2983.70435	7	23	614900.0	4171250.0	48	2685.99170	5	132	614600.0	4171250.0
24	2950.74731	21	54	614850.0	4171250.0	49	2685.99170	1	118	614600.0	4171250.0
25	2933.33911	24	236	614850.0	4171250.0	50	2685.99121	5	135	614600.0	4171250.0

SHORTZ RESULTS
1986

ra:jor

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Tue Nov 7 08:39:52 1989

lw / OmniLaser

lw ra:jor Job: llshz86b.fin.sou Date: Tue Nov 7 08:39:52 1989

lw ra:jor Job: llshz86b.fin.sou Date: Tue Nov 7 08:39:52 1989

lw ra:jor Job: llshz86b.fin.sou Date: Tue Nov 7 08:39:52 1989

lw ra:jor Job: llshz86b.fin.sou Date: Tue Nov 7 08:39:52 1989

1 SHORTZ (VERSION 82326)
 AN AIR QUALITY DISPERSION MODEL IN
 SECTION 4. ADDITIONAL MODELS FOR REGULATORY USE,
 IN UNAMAP (VERSION 6) JULY 86.
 SOURCE: FILE 29 ON UNAMAP MAGNETIC TAPE FROM NTIS.

0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1986 MetDAT for 11/06/89
 CASE 1, PAGE 1

DATE

TABLE 1

- GENERAL INPUT DATA -

NUMBER OF INPUT SOURCES	(NSOURC) =	2	
NUMBER OF X GRID COORDINATES	(NXPNTS) =	0	
NUMBER OF Y GRID COORDINATES	(NYPNTS) =	0	
TOTAL NUMBER OF HOURS IN EACH DAY	(NHOURLS) =	24	
NUMBER OF DAYS OR CASES	(NDAYS) =	347	
NUMBER OF CONCENTRATION REPORTS (SOURCE COMBINATIONS)	(NGROUP) =	2	
NUMBER OF DISCRETE CALCULATION POINTS	(NXWYPT) =	205	
MET DATA INPUT CARD RATE (1=HOURLY, 2=2 HOURLY, ETC)	(ISW(1)) =	1	
IS CONCENTRATION CALCULATED AT BASE RATE PRINTED	(ISW(2)) =	0	
NO. OF HOURS IN FIRST AVERAGE CONCENTRATION PRINTED	(ISW(3)) =	24	
NO. OF HOURS IN SECOND AVERAGE CONCENTRATION PRINTED	(ISW(4)) =	0	
NO. OF HOURS IN THIRD AVERAGE CONCENTRATION PRINTED	(ISW(5)) =	0	
ARE TERRAIN ELEVATION HEIGHTS USED	(ISW(7)) =	1	
IS WIND SPEED TERRAIN FOLLOWING	(ISW(9)) =	1	
ARE CONCENTRATIONS AVERAGED OVER DAYS OR CASES	(ISW(11)) =	1	
IS THE FORMAT FOR SOURCE DATA READ	(ISW(12)) =	0	
IS COORDINATE SYSTEM CARTESIAN (=0) OR POLAR (=1)	(ISW(13)) =	0	
ARE DISCRETE RECEPTORS CARTESIAN (=0) OR POLAR (=1)	(ISW(14)) =	0	
ARE SOURCE COORDINATES CARTESIAN (=0) OR POLAR (=1)	(ISW(15)) =	0	
SIGEPU SIGAPU FOR ALL SOURCES OPTION	(ISW(16)) =	0	
RURAL/URBAN MODE OPTION (RURAL=0), (URBAN=1)	(ISW(17)) =	0	
MODEL UNITS CONVERSION FACTOR	(TK) =	0.10000000E+07	
ACCELERATION OF GRAVITY	(G) =	9.8000	(METERS/SEC**2)
HEIGHT OF MEASUREMENT OF WIND SPEED, ETC	(ZR) =	10.0000	(METERS)
ENTRAINMENT COEFFICIENT FOR UNSTABLE ATMOSPHERE	(GAMMA1) =	0.600	
ENTRAINMENT COEFFICIENT FOR STABLE ATMOSPHERE	(GAMMA2) =	0.660	
DISTANCE OVER WHICH RECTILINEAR PLUME EXPANSION OCCURS	(XRY) =	50.0000	(METERS)
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	(DECAY) =	0.00000000E+00	
ANGULAR DISPL OF GRID SYSTEM FROM TRUE NORTH	(ROTATE) =	0.000	
ELEVATION OF BASE OF WEATHER STATION	(HA) =	180.00	(METERS)
X ORIGIN OF POLAR COORDINATES	(UTMX) =	0.00	(METERS)
Y ORIGIN OF POLAR COORDINATES	(UTMY) =	0.00	(METERS)

0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1986 MetDAT for 11/06/89

DATE

CASE 1, PAGE 2

TABLE 1 (CONT)

- GENERAL INPUT DATA -

0 *** COORDINATES OF DISCRETE POINTS (METERS, METERS) ***

(X,Y) = (614600.0, 4171000.0), (614850.0, 4171000.0), (615100.0, 4171000.0), (615350.0, 4171000.0), (615600.0, 4171000.0),
 (X,Y) = (615850.0, 4171000.0), (616100.0, 4171000.0), (616350.0, 4171000.0), (616600.0, 4171000.0), (614600.0, 4171250.0),
 (X,Y) = (614850.0, 4171250.0), (615100.0, 4171250.0), (615350.0, 4171250.0), (615600.0, 4171250.0), (615850.0, 4171250.0),
 (X,Y) = (616100.0, 4171250.0), (616350.0, 4171250.0), (616600.0, 4171250.0), (614600.0, 4171500.0), (614850.0, 4171500.0),
 (X,Y) = (615100.0, 4171500.0), (615350.0, 4171500.0), (615600.0, 4171500.0), (615850.0, 4171500.0), (616100.0, 4171500.0),
 (X,Y) = (616350.0, 4171500.0), (616600.0, 4171500.0), (614600.0, 4171750.0), (614850.0, 4171750.0), (615100.0, 4171750.0),
 (X,Y) = (615350.0, 4171750.0), (615600.0, 4171750.0), (615850.0, 4171750.0), (616100.0, 4171750.0), (616350.0, 4171750.0),
 (X,Y) = (616600.0, 4171750.0), (614600.0, 4172000.0), (614850.0, 4172000.0), (615100.0, 4172000.0), (615350.0, 4172000.0),
 (X,Y) = (615600.0, 4172000.0), (615850.0, 4172000.0), (616100.0, 4172000.0), (616350.0, 4172000.0), (616600.0, 4172000.0),
 (X,Y) = (616600.0, 4172250.0), (614850.0, 4172250.0), (615100.0, 4172250.0), (615350.0, 4172250.0), (615600.0, 4172250.0),
 (X,Y) = (615850.0, 4172250.0), (616100.0, 4172250.0), (616350.0, 4172250.0), (616600.0, 4172250.0), (614600.0, 4172500.0),
 (X,Y) = (614850.0, 4172500.0), (615100.0, 4172500.0), (615350.0, 4172500.0), (615600.0, 4172500.0), (615850.0, 4172500.0),
 (X,Y) = (616100.0, 4172500.0), (616350.0, 4172500.0), (616600.0, 4172500.0), (616170.0, 4172880.0), (612700.0, 4172880.0)

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.0, 4170900.0),
(X,Y) = ( 612700.0, 4170800.0), ( 612700.0, 4170700.0), ( 612700.0, 4170600.0), ( 612700.0, 4170500.0), ( 612700.0, 4170400.0),
.0, 4170400.0),
(X,Y) = ( 612700.0, 4170300.0), ( 612700.0, 4170200.0), ( 612700.0, 4170100.0), ( 615900.0, 4169300.0), ( 613450.0, 4172500.0),
.0, 4172500.0),
(X,Y) = ( 613450.0, 4172400.0), ( 613450.0, 4172300.0), ( 613450.0, 4172200.0), ( 613450.0, 4172100.0), ( 613450.0, 4172000.0),
.0, 4172000.0),
(X,Y) = ( 613450.0, 4171900.0), ( 613450.0, 4171800.0), ( 613450.0, 4171700.0), ( 613450.0, 4171600.0), ( 613450.0, 4171500.0),
.0, 4171500.0),
(X,Y) = ( 613450.0, 4171400.0), ( 613450.0, 4171300.0), ( 613450.0, 4171200.0), ( 613450.0, 4171100.0), ( 613450.0, 4171000.0),
.0, 4171000.0),
(X,Y) = ( 613000.0, 4172800.0), ( 613000.0, 4172600.0), ( 613000.0, 4172400.0), ( 613000.0, 4172200.0), ( 613000.0, 4172000.0),
.0, 4172000.0),
(X,Y) = ( 613000.0, 4171800.0), ( 613000.0, 4171600.0), ( 613000.0, 4171400.0), ( 613000.0, 4171200.0), ( 613000.0, 4171000.0),
.0, 4171000.0),
(X,Y) = ( 613000.0, 4170800.0), ( 613200.0, 4170800.0), ( 613400.0, 4170800.0), ( 613600.0, 4170800.0), ( 613800.0, 4170800.0),
.0, 4170800.0),
(X,Y) = ( 614000.0, 4170800.0), ( 614200.0, 4170800.0), ( 614400.0, 4170800.0), ( 614600.0, 4170800.0), ( 614800.0, 4170800.0),
.0, 4170800.0),
(X,Y) = ( 615100.0, 4170800.0), ( 615350.0, 4170800.0), ( 615600.0, 4170800.0), ( 615850.0, 4170800.0), ( 616100.0, 4170800.0),
.0, 4170400.0),
(X,Y) = ( 613200.0, 4170400.0), ( 613400.0, 4170400.0), ( 613600.0, 4170400.0), ( 613800.0, 4170400.0), ( 614000.0, 4170400.0),
.0, 4170400.0),
(X,Y) = ( 614200.0, 4170400.0), ( 614400.0, 4170400.0), ( 614600.0, 4170400.0), ( 614850.0, 4170400.0), ( 615100.0, 4170400.0),
.0, 4170400.0),
(X,Y) = ( 615350.0, 4170400.0), ( 615600.0, 4170400.0), ( 615850.0, 4170400.0), ( 608000.0, 4166500.0), ( 611000.0, 4165500.0),
.0, 4165500.0),
(X,Y) = ( 613000.0, 4167500.0), ( 615000.0, 4166500.0), ( 616000.0, 4169500.0), ( 616000.0, 4172500.0), ( 614000.0, 4174500.0),
.0, 4174500.0),
(X,Y) = ( 616000.0, 4175500.0), ( 614000.0, 4177500.0), ( 606000.0, 4174500.0), ( 609000.0, 4174500.0), ( 612000.0, 4174500.0),
.0, 4174500.0),
(X,Y) = ( 609000.0, 4173500.0), ( 610000.0, 4175500.0), ( 610000.0, 4173500.0), ( 608000.0, 4177500.0), ( 611000.0, 4177500.0),
.0, 4177500.0),
(X,Y) = ( 606000.0, 4171500.0), ( 606000.0, 4172500.0), ( 607000.0, 4172500.0), ( 607000.0, 4171500.0), ( 608000.0, 4172500.0),
.0, 4172500.0),
(X,Y) = ( 608000.0, 4171500.0), ( 609000.0, 4172500.0), ( 610000.0, 4172500.0), ( 610000.0, 4171500.0), ( 612000.0, 4171500.0),
.0, 4171500.0),
(X,Y) = ( 611000.0, 4169500.0), ( 612000.0, 4170500.0), ( 611000.0, 4172500.0), ( 613000.0, 4172500.0), ( 612000.0, 4173500.0),
.0, 4173500.0),
(X,Y) = ( 608000.0, 4169500.0), ( 609000.0, 4169500.0), ( 610000.0, 4169500.0), ( 608000.0, 4170500.0), ( 609000.0, 4170500.0),
.0, 4170500.0),
(X,Y) = ( 606000.0, 4170500.0), ( 607000.0, 4170500.0), ( 606000.0, 4169500.0), ( 607000.0, 4169500.0), ( 606000.0, 4168500.0),
.0, 4168500.0),
(X,Y) = ( 614600.0, 4170150.0), ( 614850.0, 4170150.0), ( 615100.0, 4170150.0), ( 615350.0, 4170150.0), ( 614850.0, 4169900.0),
.0, 4169900.0),
(X,Y) = ( 615100.0, 4169900.0), ( 615350.0, 4169900.0), ( 615900.0, 4172900.0), ( 616400.0, 4172900.0), ( 616700.0, 4172900.0),
.0, 4172900.0),
(X,Y) = ( 617000.0, 4172900.0), ( 614900.0, 4171050.0), ( 615000.0, 4171050.0), ( 615100.0, 4171050.0), ( 615200.0, 4171050.0),
.0, 4171050.0),
(X,Y) = ( 615300.0, 4171050.0), ( 614900.0, 4171150.0), ( 615000.0, 4171150.0), ( 615100.0, 4171150.0), ( 615200.0, 4171150.0),
.0, 4171150.0),
(X,Y) = ( 615300.0, 4171150.0), ( 614900.0, 4171250.0), ( 615000.0, 4171250.0), ( 615200.0, 4171250.0), ( 615300.0, 4171250.0),
.0, 4171250.0),
(X,Y) = ( 614900.0, 4171350.0), ( 615000.0, 4171350.0), ( 615100.0, 4171350.0), ( 615200.0, 4171350.0), ( 615300.0, 4171350.0),
.0, 4171350.0),
(X,Y) = ( 614900.0, 4171450.0), ( 615000.0, 4171450.0), ( 615100.0, 4171450.0), ( 615200.0, 4171450.0), ( 615300.0, 4171450.0),
.0, 4171450.0),

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0 NUMBER OF SOURCES IN EACH CONCENTRATION REPORT GROUP 1 TO 2 = 1, 1,

0 SOURCE NUMBERS FOR EACH OF THE ABOVE GROUPS = 1, 2,

0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1986 MatDAT for 11/06/89

DATE

CASE 1, PAGE 3

TABLE 2

- GENERAL INPUT DATA -

- DISCRETE POINT TERRAIN HEIGHTS (METERS) *-*			*-* DISCRETE POINT TERRAIN HEIGHTS (METERS) *-*			*-* DISCRETE POINT TERRAIN HEIGHTS (METERS) *-*		
X (METERS)	Y (METERS)	HEIGHT	X (METERS)	Y (METERS)	HEIGHT	X (METERS)	Y (METERS)	HEIGHT
614600.0	4171000.0	197.0000000	614850.0	4171000.0	200.0000000	615100.0	4171000.0	204.0000
615350.0	4171000.0	216.0000000	615600.0	4171000.0	232.0000000	615850.0	4171000.0	238.0000
616100.0	4171000.0	244.0000000	616350.0	4171000.0	250.0000000	616600.0	4171000.0	250.0000

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00 614600.0	4171250.0	194.0000000	614850.0	4171250.0	196.0000000	615100.0	4171250.0	199.00000
00 615350.0	4171250.0	203.0000000	615600.0	4171250.0	213.0000000	615850.0	4171250.0	223.00000
00 616100.0	4171250.0	229.0000000	616350.0	4171250.0	229.0000000	616600.0	4171250.0	238.00000
00 614600.0	4171500.0	190.0000000	614850.0	4171500.0	192.0000000	615100.0	4171500.0	195.00000
00 615350.0	4171500.0	195.0000000	615600.0	4171500.0	200.0000000	615850.0	4171500.0	206.00000
00 616100.0	4171500.0	220.0000000	616350.0	4171500.0	230.0000000	616600.0	4171500.0	230.00000
00 614600.0	4171750.0	188.0000000	614850.0	4171750.0	187.0000000	615100.0	4171750.0	189.00000
00 615350.0	4171750.0	193.0000000	615600.0	4171750.0	197.0000000	615850.0	4171750.0	201.00000
00 616100.0	4171750.0	215.0000000	616350.0	4171750.0	212.0000000	616600.0	4171750.0	219.00000
00 614600.0	4172000.0	186.0000000	614850.0	4172000.0	187.0000000	615100.0	4172000.0	189.00000
00 615350.0	4172000.0	193.0000000	615600.0	4172000.0	197.0000000	615850.0	4172000.0	201.00000
00 616100.0	4172000.0	207.0000000	616350.0	4172000.0	210.0000000	616600.0	4172000.0	215.00000
00 614600.0	4172250.0	183.0000000	614850.0	4172250.0	187.0000000	615100.0	4172250.0	190.00000
00 615350.0	4172250.0	195.0000000	615600.0	4172250.0	200.0000000	615850.0	4172250.0	206.00000
00 616100.0	4172250.0	208.0000000	616350.0	4172250.0	213.0000000	616600.0	4172250.0	223.00000
00 614600.0	4172500.0	183.0000000	614850.0	4172500.0	186.0000000	615100.0	4172500.0	190.00000
00 615350.0	4172500.0	194.0000000	615600.0	4172500.0	200.0000000	615850.0	4172500.0	204.00000
00 616100.0	4172500.0	207.0000000	616350.0	4172500.0	213.0000000	616600.0	4172500.0	219.00000
00 616170.0	4172880.0	210.0000000	612700.0	4170900.0	179.0000000	612700.0	4170800.0	180.00000
00 612700.0	4170700.0	181.0000000	612700.0	4170600.0	182.0000000	612700.0	4170500.0	182.00000
00 612700.0	4170400.0	181.0000000	612700.0	4170300.0	181.0000000	612700.0	4170200.0	180.00000
00 612700.0	4170100.0	180.0000000	615900.0	4169300.0	226.0000000	613450.0	4172500.0	174.00000
00 613450.0	4172400.0	175.0000000	613450.0	4172300.0	175.0000000	613450.0	4172200.0	176.00000
00 613450.0	4172100.0	177.0000000	613450.0	4172000.0	178.0000000	613450.0	4171900.0	179.00000
00 613450.0	4171800.0	180.0000000	613450.0	4171700.0	181.0000000	613450.0	4171600.0	182.00000
00 613450.0	4171500.0	183.0000000	613450.0	4171400.0	183.0000000	613450.0	4171300.0	185.00000
00 613450.0	4171200.0	186.0000000	613450.0	4171100.0	187.0000000	613450.0	4171000.0	188.00000
00 613000.0	4172800.0	170.0000000	613000.0	4172600.0	171.0000000	613000.0	4172400.0	172.00000
00 613000.0	4172200.0	173.0000000	613000.0	4172000.0	176.0000000	613000.0	4171800.0	178.00000
00 613000.0	4171600.0	179.0000000	613000.0	4171400.0	180.0000000	613000.0	4171200.0	181.00000
00 613000.0	4171000.0	181.0000000	613000.0	4170800.0	184.0000000	613200.0	4170800.0	185.00000
00 613400.0	4170800.0	187.0000000	613600.0	4170800.0	190.0000000	613800.0	4170800.0	192.00000
00 614000.0	4170800.0	194.0000000	614200.0	4170800.0	196.0000000	614400.0	4170800.0	195.00000
00 614600.0	4170800.0	197.0000000	614850.0	4170800.0	204.0000000	615100.0	4170800.0	212.00000
00 615350.0	4170800.0	250.0000000	615600.0	4170800.0	250.0000000	615850.0	4170800.0	251.00000
00 613000.0	4170400.0	184.0000000	613200.0	4170400.0	187.0000000	613400.0	4170400.0	188.00000
00 613600.0	4170400.0	190.0000000	613800.0	4170400.0	193.0000000	614000.0	4170400.0	197.00000
00 614200.0	4170400.0	195.0000000	614400.0	4170400.0	201.0000000	614600.0	4170400.0	206.00000
00 614850.0	4170400.0	226.0000000	615100.0	4170400.0	239.0000000	615350.0	4170400.0	238.00000

615600.0 4170400.0 256.0000000 615850.0 4170400.0 274.0000000 608000.0 4166500.0 143.000
 00
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TABLE 2 (CONT)

- GENERAL INPUT DATA -

X Y HEIGHT			*-* DISCRETE POINT TERRAIN HEIGHTS (METERS) *-*			X Y HEIGHT		
(METERS)	(METERS)		(METERS)	(METERS)		(METERS)	(METERS)	
611000.0	4165500.0	274.0000000	613000.0	4167500.0	207.0000000	615000.0	4166500.0	323.000
616000.0	4169500.0	226.0000000	616000.0	4172500.0	204.0000000	614000.0	4174500.0	168.000
616000.0	4175500.0	280.0000000	614000.0	4177500.0	238.0000000	606000.0	4174500.0	152.000
609000.0	4174500.0	183.0000000	612000.0	4174500.0	158.0000000	609000.0	4173500.0	143.000
610000.0	4175500.0	152.0000000	610000.0	4173500.0	171.0000000	608000.0	4177500.0	171.000
611000.0	4177500.0	168.0000000	606000.0	4171500.0	131.0000000	606000.0	4172500.0	125.000
607000.0	4172500.0	134.0000000	607000.0	4171500.0	137.0000000	608000.0	4172500.0	142.000
608000.0	4171500.0	143.0000000	609000.0	4172500.0	165.0000000	610000.0	4172500.0	177.000
610000.0	4171500.0	158.0000000	612000.0	4171500.0	171.0000000	611000.0	4169500.0	177.000
612000.0	4170500.0	177.0000000	611000.0	4172500.0	162.0000000	613000.0	4172500.0	172.000
612000.0	4173500.0	162.0000000	608000.0	4169500.0	152.0000000	609000.0	4169500.0	158.000
610000.0	4169500.0	166.0000000	608000.0	4170500.0	146.0000000	609000.0	4170500.0	155.000
606000.0	4170500.0	131.0000000	607000.0	4170500.0	140.0000000	606000.0	4169500.0	130.000
607000.0	4169500.0	140.0000000	606000.0	4168500.0	133.0000000	614600.0	4170150.0	207.000
614850.0	4170150.0	219.0000000	615100.0	4170150.0	238.0000000	615350.0	4170150.0	251.000
614850.0	4169900.0	219.0000000	615100.0	4169900.0	226.0000000	615350.0	4169900.0	241.000
615900.0	4172900.0	204.0000000	616400.0	4172900.0	219.0000000	616700.0	4172900.0	226.000
617000.0	4172900.0	241.0000000	614900.0	4171050.0	201.0000000	615000.0	4171050.0	202.000
615100.0	4171050.0	202.0000000	615200.0	4171050.0	206.0000000	615300.0	4171050.0	209.000
614900.0	4171150.0	200.0000000	615000.0	4171150.0	201.0000000	615100.0	4171150.0	201.000
615200.0	4171150.0	203.0000000	615300.0	4171150.0	206.0000000	614900.0	4171250.0	197.000
615000.0	4171250.0	198.0000000	615200.0	4171250.0	201.0000000	615300.0	4171250.0	202.000
614900.0	4171350.0	195.0000000	615000.0	4171350.0	196.0000000	615100.0	4171350.0	197.000
615200.0	4171350.0	198.0000000	615300.0	4171350.0	198.0000000	614900.0	4171450.0	194.000
615000.0	4171450.0	194.0000000	615100.0	4171450.0	196.0000000	615200.0	4171450.0	196.000
615300.0	4171450.0	195.0000000						

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TABLE 3

- SOURCE INPUT DATA -

C T	SOURCE T	SOURCE	X	Y	HEIGHT	IF TYPE=0	IF TYPE=0	ANGLE	STACK	ELEVATION	PAR
A A	NUMBER Y	STRENGTH	COORDINATE	COORDINATE	ABOVE	TEMP (DEG K)	VOL. EMISS.	TO	INNER	AT	S
TLING	FREQUENCY										

R P	P (GRAMS/SEC)	(METERS)	(METERS)	GROUND	IF TYPE=10R2	RT. M**3/SEC	LONG	RADIUS	STACK	VEL
OCITY	OF									
D E	E			(METERS)	LENGTH SHORT	IF TYPE=10R2	SIDE	(METERS)	BASE	(METERS)
RS/SEC)	OCCURRENCE									
	(FRACTION)				SIDE (MTRS)	LENGTH LONG	(DEG)		(METERS)	
						SIDE (MTRS)				

X	1 0	1.000	614750.00	4171180.00	11.70	1255.000	1.240	0.0	0.230	195.00
X	2 0	1.000	614750.00	4171180.00	3.80	293.000	0.000	0.0	0.000	195.00
**	-WARNING Z > HM, SOURCE	1, HOUR	0, X=	616000.0, Y=	4175500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	0, X=	616000.0, Y=	4175500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	8, X=	615600.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	8, X=	615850.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	8, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	10, X=	616000.0, Y=	4175500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	8, X=	616000.0, Y=	4175500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	9, X=	611000.0, Y=	4165500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	1, X=	615600.0, Y=	4171000.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	1, X=	615850.0, Y=	4171000.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	1, X=	616100.0, Y=	4171000.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	1, X=	616350.0, Y=	4171000.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	1, X=	616600.0, Y=	4171000.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	1, X=	615850.0, Y=	4171250.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	1, X=	616100.0, Y=	4171250.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	1, X=	616350.0, Y=	4171250.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	1, X=	616600.0, Y=	4171250.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	5, X=	614850.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	5, X=	615100.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	5, X=	615100.0, Y=	4170150.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	5, X=	615350.0, Y=	4170150.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	5, X=	615100.0, Y=	4169900.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	5, X=	615350.0, Y=	4169900.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	7, X=	614850.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	7, X=	615100.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	7, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	7, X=	615100.0, Y=	4170150.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	7, X=	615100.0, Y=	4169900.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	9, X=	616000.0, Y=	4175500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	9, X=	614000.0, Y=	4177500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615900.0, Y=	4169300.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615350.0, Y=	4170800.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	614850.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615100.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615350.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615600.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615850.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	611000.0, Y=	4165500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	616000.0, Y=	4169500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615100.0, Y=	4170150.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615350.0, Y=	4170150.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615100.0, Y=	4169900.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615350.0, Y=	4169900.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	13, X=	615600.0, Y=	4171000.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	13, X=	615850.0, Y=	4171000.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	13, X=	616100.0, Y=	4171000.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	13, X=	616350.0, Y=	4171000.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	13, X=	616600.0, Y=	4171000.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	13, X=	615850.0, Y=	4171250.0					

0** TOO MANY MESSAGES PROG STOPS PRINTING THEM

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TABLE 4

24 HOUR GROUND LEVEL CONCENTRATION (MICROGRAMS/CUBIC METER) FROM SOURCES 1
AVERAGED OVER 347 DAYS
- HOUR(S) 0 TO 2300 -

- DISCRETE POINT RECEPTORS -

(THE MAXIMUM CONCENTRATION IS, 4.1226702 AT X= 615100.0, Y=4171450.0)

0	X	Y	CONCENTRATION	X	Y	CONCENTRATION	X	Y	CONCENTRATION
ON	(METERS)	(METERS)		(METERS)	(METERS)		(METERS)	(METERS)	

614600.0	4171000.0	1.1558717	614850.0	4171000.0	0.8912002	615100.0	4171000.0	0.769	
68	615350.0	4171000.0	0.9841576	615600.0	4171000.0	0.8023360	615850.0	4171000.0	0.626
02	616100.0	4171000.0	0.4750555	616350.0	4171000.0	0.3618692	616600.0	4171000.0	0.285
67	614600.0	4171250.0	0.0657158	614850.0	4171250.0	1.0774562	615100.0	4171250.0	3.038
53	615350.0	4171250.0	2.1089344	615600.0	4171250.0	1.4971262	615850.0	4171250.0	0.986
20	616100.0	4171250.0	0.6602767	616350.0	4171250.0	0.4712733	616600.0	4171250.0	0.351
36	614600.0	4171500.0	0.1717757	614850.0	4171500.0	0.2773192	615100.0	4171500.0	3.526
39	615350.0	4171500.0	2.5357621	615600.0	4171500.0	1.6146749	615850.0	4171500.0	1.043
44	616100.0	4171500.0	0.7224588	616350.0	4171500.0	0.4999417	616600.0	4171500.0	0.374
86	614600.0	4171750.0	0.1693739	614850.0	4171750.0	0.2354898	615100.0	4171750.0	0.762
34	615350.0	4171750.0	2.1706846	615600.0	4171750.0	1.9396948	615850.0	4171750.0	1.340
72	616100.0	4171750.0	0.9137300	616350.0	4171750.0	0.6500446	616600.0	4171750.0	0.455
12	614600.0	4172000.0	0.1989498	614850.0	4172000.0	0.2620370	615100.0	4172000.0	0.370
92	615350.0	4172000.0	1.1497111	615600.0	4172000.0	1.4924425	615850.0	4172000.0	1.371
93	616100.0	4172000.0	1.0268867	616350.0	4172000.0	0.7477132	616600.0	4172000.0	0.504
32	614600.0	4172250.0	0.1924029	614850.0	4172250.0	0.2432659	615100.0	4172250.0	0.285
71	615350.0	4172250.0	0.5817510	615600.0	4172250.0	0.9730561	615850.0	4172250.0	1.062
18	616100.0	4172250.0	0.9540321	616350.0	4172250.0	0.7681412	616600.0	4172250.0	0.605
26	614600.0	4172500.0	0.1885036	614850.0	4172500.0	0.2068049	615100.0	4172500.0	0.220
06	615350.0	4172500.0	0.3120923	615600.0	4172500.0	0.5498430	615850.0	4172500.0	0.698
93	616100.0	4172500.0	0.7310457	616350.0	4172500.0	0.6742232	616600.0	4172500.0	0.592
65	616170.0	4172880.0	0.4551235	612700.0	4170900.0	0.2318408	612700.0	4170800.0	0.214
68	612700.0	4170700.0	0.2200442	612700.0	4170600.0	0.2152725	612700.0	4170500.0	0.199
92	612700.0	4170400.0	0.1805750	612700.0	4170300.0	0.1792690	612700.0	4170200.0	0.149
69	612700.0	4170100.0	0.1283337	615900.0	4169300.0	0.0764102	613450.0	4172500.0	0.223
45	613450.0	4172400.0	0.2919987	613450.0	4172300.0	0.3471673	613450.0	4172200.0	0.360
82	613450.0	4172100.0	0.4690075	613450.0	4172000.0	0.4829880	613450.0	4171900.0	0.560
19	613450.0	4171800.0	0.6752208	613450.0	4171700.0	0.7964236	613450.0	4171600.0	0.710
58	613450.0	4171500.0	0.7704400	613450.0	4171400.0	0.5340675	613450.0	4171300.0	0.527
80	613450.0	4171200.0	0.5032466	613450.0	4171100.0	0.4534271	613450.0	4171000.0	0.410
79	613000.0	4172800.0	0.2225802	613000.0	4172600.0	0.2533739	613000.0	4172400.0	0.355
25	613000.0	4172200.0	0.4029102	613000.0	4172000.0	0.5372036	613000.0	4171800.0	0.579
16	613000.0	4171600.0	0.5984531	613000.0	4171400.0	0.3956935	613000.0	4171200.0	0.378
91	613000.0	4171000.0	0.2906414	613000.0	4170800.0	0.2745007	613200.0	4170800.0	0.311
87	613400.0	4170800.0	0.3579128	613600.0	4170800.0	0.4167084	613800.0	4170800.0	0.484
98	614000.0	4170800.0	0.5111923	614200.0	4170800.0	0.6554392	614400.0	4170800.0	0.857
70	614600.0	4170800.0	0.6471308	614850.0	4170800.0	0.8175278	615100.0	4170800.0	0.504
32	615350.0	4170800.0	0.4684121	615600.0	4170800.0	0.4990848	615850.0	4170800.0	0.326
62	613000.0	4170400.0	0.2164325	613200.0	4170400.0	0.2110180	613400.0	4170400.0	0.238

08
 613600.0 4170400.0 0.2894093 613800.0 4170400.0 0.3429649 614000.0 4170400.0 0.44135
 21
 614200.0 4170400.0 0.4614663 614400.0 4170400.0 0.3927023 614600.0 4170400.0 0.54446
 08
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TABLE 4 (CONT)

24 HOUR GROUND LEVEL CONCENTRATION (MICROGRAMS/CUBIC METER) FROM SOURCES 1
 AVERAGED OVER 347 DAYS
 - HOUR(S) 0 TO 2300 -

- DISCRETE POINT RECEPTORS -
 (THE MAXIMUM CONCENTRATION IS, 4.1226702 AT X= 615100.0, Y=4171450.0)
 0 X Y CONCENTRATION X Y CONCENTRATION X Y CONCENTRATION
 ON (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)

 614850.0 4170400.0 0.7024454 615100.0 4170400.0 0.6823798 615350.0 4170400.0 0.24201
 51
 615600.0 4170400.0 0.2221153 615850.0 4170400.0 0.1051101 608000.0 4166500.0 0.01700
 66
 611000.0 4165500.0 0.0228635 613000.0 4167500.0 0.0396689 615000.0 4166500.0 0.01828
 37
 616000.0 4169500.0 0.0715937 616000.0 4172500.0 0.6844828 614000.0 4174500.0 0.05753
 42
 616000.0 4175500.0 0.0390844 614000.0 4177500.0 0.0259247 606000.0 4174500.0 0.06240
 49
 609000.0 4174500.0 0.0825558 612000.0 4174500.0 0.0695555 609000.0 4173500.0 0.11408
 30
 610000.0 4175500.0 0.0561307 610000.0 4173500.0 0.1308713 608000.0 4177500.0 0.03134
 20
 611000.0 4177500.0 0.0243169 606000.0 4171500.0 0.0341077 606000.0 4172500.0 0.03226
 49
 607000.0 4172500.0 0.0441949 607000.0 4171500.0 0.0413946 608000.0 4172500.0 0.06474
 01
 608000.0 4171500.0 0.0516079 609000.0 4172500.0 0.1106193 610000.0 4172500.0 0.18129
 63
 610000.0 4171500.0 0.0937133 612000.0 4171500.0 0.2253328 611000.0 4169500.0 0.07150
 20
 612000.0 4170500.0 0.1445689 611000.0 4172500.0 0.2032192 613000.0 4172500.0 0.29598
 67
 612000.0 4173500.0 0.1409272 608000.0 4169500.0 0.0346759 609000.0 4169500.0 0.04316
 12
 610000.0 4169500.0 0.0520449 608000.0 4170500.0 0.0383543 609000.0 4170500.0 0.04951
 57
 606000.0 4170500.0 0.0257689 607000.0 4170500.0 0.0312842 606000.0 4169500.0 0.02050
 90
 607000.0 4169500.0 0.0268538 606000.0 4168500.0 0.0208463 614600.0 4170150.0 0.40280
 68
 614850.0 4170150.0 0.3733197 615100.0 4170150.0 0.3948964 615350.0 4170150.0 0.26339
 13
 614850.0 4169900.0 0.2220353 615100.0 4169900.0 0.1928822 615350.0 4169900.0 0.25065
 40
 615900.0 4172900.0 0.3953790 616400.0 4172900.0 0.4376057 616700.0 4172900.0 0.44292
 61
 617000.0 4172900.0 0.3849261 614900.0 4171050.0 0.8025571 615000.0 4171050.0 0.90842
 05
 615100.0 4171050.0 1.0556945 615200.0 4171050.0 1.3073512 615300.0 4171050.0 1.30331
 23
 614900.0 4171150.0 2.6088190 615000.0 4171150.0 3.5655231 615100.0 4171150.0 3.02997
 71
 615200.0 4171150.0 2.6499519 615300.0 4171150.0 2.2907767 614900.0 4171250.0 2.65978
 41
 615000.0 4171250.0 3.3850312 615200.0 4171250.0 2.7040353 615300.0 4171250.0 2.27275
 40
 614900.0 4171350.0 1.7822393 615000.0 4171350.0 3.6835701 615100.0 4171350.0 3.39176
 92
 615200.0 4171350.0 2.7970335 615300.0 4171350.0 2.2075670 614900.0 4171450.0 0.73113
 60
 615000.0 4171450.0 2.4559009 615100.0 4171450.0 4.1226702 615200.0 4171450.0 3.42078
 61
 615300.0 4171450.0 2.5103157

LLNL HRA, SHORTZ Final Receptor Set, LLNL 1986 MetDAT for 11/06/89

DATE ,

TABLE 5

24 HOUR GROUND LEVEL CONCENTRATION (MICROGRAMS/CUBIC METER) FROM SOURCES
AVERAGED OVER 347 DAYS

- HOUR(S) 0 TO 2300 -

- DISCRETE POINT RECEPTORS -

(THE MAXIMUM CONCENTRATION IS, 276.2765503 AT X= 614850.0, Y=4171250.0)

0	X	Y	CONCENTRATION	X	Y	CONCENTRATION	X	Y	CONCENTRATION
ON	(METERS)	(METERS)		(METERS)	(METERS)		(METERS)	(METERS)	
93	614600.0	4171000.0	28.6939831	614850.0	4171000.0	25.0380936	615100.0	4171000.0	5.256
94	615350.0	4171000.0	2.2258003	615600.0	4171000.0	1.3910515	615850.0	4171000.0	1.153
19	616100.0	4171000.0	0.8709643	616350.0	4171000.0	0.6392277	616600.0	4171000.0	0.492
13	614600.0	4171250.0	194.9997711	614850.0	4171250.0	276.2765503	615100.0	4171250.0	18.660
99	615350.0	4171250.0	6.3126235	615600.0	4171250.0	3.0069206	615850.0	4171250.0	1.665
39	616100.0	4171250.0	1.0783623	616350.0	4171250.0	0.7594274	616600.0	4171250.0	0.560
39	614600.0	4171500.0	14.2911978	614850.0	4171500.0	12.2249470	615100.0	4171500.0	22.499
50	615350.0	4171500.0	10.3968239	615600.0	4171500.0	4.9286051	615850.0	4171500.0	2.334
46	616100.0	4171500.0	1.3287220	616350.0	4171500.0	0.8784789	616600.0	4171500.0	0.660
06	614600.0	4171750.0	4.3904467	614850.0	4171750.0	4.5093102	615100.0	4171750.0	5.877
75	615350.0	4171750.0	7.4404478	615600.0	4171750.0	5.0892200	615850.0	4171750.0	3.075
63	616100.0	4171750.0	1.7840743	616350.0	4171750.0	1.3180004	616600.0	4171750.0	0.843
31	614600.0	4172000.0	2.3383627	614850.0	4172000.0	2.5809681	615100.0	4172000.0	2.374
23	615350.0	4172000.0	4.4013090	615600.0	4172000.0	3.7435832	615850.0	4172000.0	2.923
64	616100.0	4172000.0	2.0333061	616350.0	4172000.0	1.4439949	616600.0	4172000.0	0.933
70	614600.0	4172250.0	1.4240359	614850.0	4172250.0	1.6277515	615100.0	4172250.0	1.391
05	615350.0	4172250.0	1.8829100	615600.0	4172250.0	2.3615830	615850.0	4172250.0	2.160
88	616100.0	4172250.0	1.7772726	616350.0	4172250.0	1.4218625	616600.0	4172250.0	1.110
19	614600.0	4172500.0	1.0420836	614850.0	4172500.0	1.0944932	615100.0	4172500.0	1.071
65	615350.0	4172500.0	0.9926429	615600.0	4172500.0	1.3496876	615850.0	4172500.0	1.527
77	616100.0	4172500.0	1.4282556	616350.0	4172500.0	1.2125119	616600.0	4172500.0	1.080
10	616170.0	4172880.0	0.9303116	612700.0	4170900.0	0.8493718	612700.0	4170800.0	0.707
56	612700.0	4170700.0	0.7387157	612700.0	4170600.0	0.7683167	612700.0	4170500.0	0.626
45	612700.0	4170400.0	0.6030753	612700.0	4170300.0	0.5869465	612700.0	4170200.0	0.480
10	612700.0	4170100.0	0.4664540	615900.0	4169300.0	0.1666553	613450.0	4172500.0	1.207
78	613450.0	4172400.0	1.5176229	613450.0	4172300.0	1.8162022	613450.0	4172200.0	1.867
96	613450.0	4172100.0	2.7420058	613450.0	4172000.0	2.9270666	613450.0	4171900.0	3.550
92	613450.0	4171800.0	4.3980532	613450.0	4171700.0	5.5269222	613450.0	4171600.0	4.988
55	613450.0	4171500.0	5.9105196	613450.0	4171400.0	3.8688576	613450.0	4171300.0	3.614
49	613450.0	4171200.0	3.5051122	613450.0	4171100.0	2.6423655	613450.0	4171000.0	2.104
45	613000.0	4172800.0	0.9144998	613000.0	4172600.0	1.0202553	613000.0	4172400.0	1.609

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613000.0	4172200.0	1.9559541	613000.0	4172000.0	2.6026604	613000.0	4171800.0	2.92370	
03	613000.0	4171600.0	3.3312955	613000.0	4171400.0	1.9957348	613000.0	4171200.0	1.99347
39	613000.0	4171000.0	1.2362376	613000.0	4170800.0	0.9830389	613200.0	4170800.0	1.27093
71	613400.0	4170800.0	1.6538416	613600.0	4170800.0	1.9087119	613800.0	4170800.0	2.60515
81	614000.0	4170800.0	2.9712849	614200.0	4170800.0	4.4875302	614400.0	4170800.0	5.57593
68	614600.0	4170800.0	7.1196666	614850.0	4170800.0	4.7280269	615100.0	4170800.0	2.40411
38	615350.0	4170800.0	1.0663097	615600.0	4170800.0	1.0855360	615850.0	4170800.0	0.64604
82	613000.0	4170400.0	0.7425423	613200.0	4170400.0	0.7662566	613400.0	4170400.0	0.98341
70	613600.0	4170400.0	1.1868073	613800.0	4170400.0	1.2216078	614000.0	4170400.0	1.45064
94	614200.0	4170400.0	1.9663564	614400.0	4170400.0	1.6582142	614600.0	4170400.0	2.51522
52									
0	LLNL HRA, SHORTZ Final Receptor Set, LLNL 1986 MetDAT for 11/06/89							DATE	,
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TABLE 5 (CONT)

24 HOUR GROUND LEVEL CONCENTRATION (MICROGRAMS/CUBIC METER) FROM SOURCES 2
 AVERAGED OVER 347 DAYS
 - HOUR(S) 0 TO 2300 -

- DISCRETE POINT RECEPTORS -

(THE MAXIMUM CONCENTRATION IS, 276.2765503 AT X= 614850.0, Y=4171250.0)

ON	X (METERS)	Y (METERS)	CONCENTRATION	X (METERS)	Y (METERS)	CONCENTRATION	X (METERS)	Y (METERS)	CONCENTRATION
	614850.0	4170400.0	1.6026934	615100.0	4170400.0	1.8147362	615350.0	4170400.0	0.55748
70	615600.0	4170400.0	0.4939393	615850.0	4170400.0	0.1975120	608000.0	4166500.0	0.04268
78	611000.0	4165500.0	0.0453959	613000.0	4167500.0	0.0897138	615000.0	4166500.0	0.03133
96	616000.0	4169500.0	0.1701469	616000.0	4172500.0	1.3580544	614000.0	4174500.0	0.18082
29	616000.0	4175500.0	0.0890611	614000.0	4177500.0	0.0608105	606000.0	4174500.0	0.19030
69	609000.0	4174500.0	0.2801147	612000.0	4174500.0	0.2300780	609000.0	4173500.0	0.34742
67	610000.0	4175500.0	0.1626654	610000.0	4173500.0	0.4208530	608000.0	4177500.0	0.09794
98	611000.0	4177500.0	0.0702726	606000.0	4171500.0	0.1044197	606000.0	4172500.0	0.09515
78	607000.0	4172500.0	0.1329410	607000.0	4171500.0	0.1275245	608000.0	4172500.0	0.20560
80	608000.0	4171500.0	0.1601574	609000.0	4172500.0	0.3876238	610000.0	4172500.0	0.60902
96	610000.0	4171500.0	0.2967125	612000.0	4171500.0	0.8405226	611000.0	4169500.0	0.18826
47	612000.0	4170500.0	0.4421901	611000.0	4172500.0	0.6968564	613000.0	4172500.0	1.26051
55	612000.0	4173500.0	0.4573793	608000.0	4169500.0	0.0897490	609000.0	4169500.0	0.11712
51	610000.0	4169500.0	0.1295789	608000.0	4170500.0	0.1000926	609000.0	4170500.0	0.12878
98	606000.0	4170500.0	0.0693992	607000.0	4170500.0	0.0829925	606000.0	4169500.0	0.04639
13	607000.0	4169500.0	0.0626475	606000.0	4168500.0	0.0498104	614600.0	4170150.0	1.30516
73	614850.0	4170150.0	0.8272182	615100.0	4170150.0	0.8986279	615350.0	4170150.0	0.62700
92	614850.0	4169900.0	0.4541704	615100.0	4169900.0	0.4133732	615350.0	4169900.0	0.60376
67	615900.0	4172900.0	0.8831381	616400.0	4172900.0	0.7875150	616700.0	4172900.0	0.78126
21	617000.0	4172900.0	0.6720803	614900.0	4171050.0	13.7886705	615000.0	4171050.0	10.01790
33	615100.0	4171050.0	7.7504010	615200.0	4171050.0	4.0132742	615300.0	4171050.0	2.95811

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10	614900.0	4171150.0	49.7126122	615000.0	4171150.0	26.2553406	615100.0	4171150.0	14.4200
21	615200.0	4171150.0	8.9546967	615300.0	4171150.0	5.9184260	614900.0	4171250.0	137.1111
08	615000.0	4171250.0	43.6007462	615200.0	4171250.0	11.2478132	615300.0	4171250.0	7.5928
35	614900.0	4171350.0	73.2955093	615000.0	4171350.0	55.4244080	615100.0	4171350.0	27.5509
77	615200.0	4171350.0	17.1435394	615300.0	4171350.0	9.6537066	614900.0	4171450.0	24.5282
21	615000.0	4171450.0	29.5885715	615100.0	4171450.0	26.6704559	615200.0	4171450.0	18.0519
09	615300.0	4171450.0	11.2873869						

SHORTZ RESULTS
1987

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Tue Nov 7 08:54:01 1989

lw / OmniLaser

lw ra:jor Job: llshz87b.fin.sou Date: Tue Nov 7 08:54:01 1989

lw ra:jor Job: llshz87b.fin.sou Date: Tue Nov 7 08:54:01 1989

lw ra:jor Job: llshz87b.fin.sou Date: Tue Nov 7 08:54:01 1989

lw ra:jor Job: llshz87b.fin.sou Date: Tue Nov 7 08:54:01 1989

1 SHORTZ (VERSION 82326)
 AN AIR QUALITY DISPERSION MODEL IN
 SECTION 4. ADDITIONAL MODELS FOR REGULATORY USE,
 IN UNAMAP (VERSION 6) JULY 86.
 SOURCE: FILE 29 ON UNAMAP MAGNETIC TAPE FROM NTIS.

0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1987 MetDAT for 11/07/89
 CASE 1, PAGE 1

DATE

TABLE 1

- GENERAL INPUT DATA -

NUMBER OF INPUT SOURCES	(NSOURC) =	2	
NUMBER OF X GRID COORDINATES	(NXPNTS) =	0	
NUMBER OF Y GRID COORDINATES	(NYPNTS) =	0	
TOTAL NUMBER OF HOURS IN EACH DAY	(NHOURS) =	24	
NUMBER OF DAYS OR CASES	(NDAYS) =	350	
NUMBER OF CONCENTRATION REPORTS (SOURCE COMBINATIONS)	(NGROUP) =	2	
NUMBER OF DISCRETE CALCULATION POINTS	(NXWYPT) =	205	
MET DATA INPUT CARD RATE (1=HOURLY, 2=2 HOURLY, ETC)	(ISW(1)) =	1	
IS CONCENTRATION CALCULATED AT BASE RATE PRINTED	(ISW(2)) =	0	
NO. OF HOURS IN FIRST AVERAGE CONCENTRATION PRINTED	(ISW(3)) =	24	
NO. OF HOURS IN SECOND AVERAGE CONCENTRATION PRINTED	(ISW(4)) =	0	
NO. OF HOURS IN THIRD AVERAGE CONCENTRATION PRINTED	(ISW(5)) =	0	
ARE TERRAIN ELEVATION HEIGHTS USED	(ISW(7)) =	1	
IS WIND SPEED TERRAIN FOLLOWING	(ISW(9)) =	1	
ARE CONCENTRATIONS AVERAGED OVER DAYS OR CASES	(ISW(11)) =	1	
IS THE FORMAT FOR SOURCE DATA READ	(ISW(12)) =	0	
IS COORDINATE SYSTEM CARTESIAN (=0) OR POLAR (=1)	(ISW(13)) =	0	
ARE DISCRETE RECEPTORS CARTESIAN (=0) OR POLAR (=1)	(ISW(14)) =	0	
ARE SOURCE COORDINATES CARTESIAN (=0) OR POLAR (=1)	(ISW(15)) =	0	
SIGEPU SIGAPU FOR ALL SOURCES OPTION	(ISW(16)) =	0	
RURAL/URBAN MODE OPTION (RURAL=0), (URBAN=1)	(ISW(17)) =	0	
MODEL UNITS CONVERSION FACTOR	(TK) =	0.10000000E+07	
ACCELERATION OF GRAVITY	(G) =	9.8000	(METERS/SEC**2)
HEIGHT OF MEASUREMENT OF WIND SPEED, ETC	(ZR) =	10.0000	(METERS)
ENTRAINMENT COEFFICIENT FOR UNSTABLE ATMOSPHERE	(GAMMA1) =	0.600	
ENTRAINMENT COEFFICIENT FOR STABLE ATMOSPHERE	(GAMMA2) =	0.660	
DISTANCE OVER WHICH RECTILINEAR PLUME EXPANSION OCCURS	(XRY) =	50.0000	(METERS)
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	(DECAY) =	0.00000000E+00	
ANGULAR DISPL OF GRID SYSTEM FROM TRUE NORTH	(ROTATE) =	0.000	
ELEVATION OF BASE OF WEATHER STATION	(HA) =	180.00	(METERS)
X ORIGIN OF POLAR COORDINATES	(UTMX) =	0.00	(METERS)
Y ORIGIN OF POLAR COORDINATES	(UTMY) =	0.00	(METERS)

0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1987 MetDAT for 11/07/89
 CASE 1, PAGE 2

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TABLE 1 (CONT)

- GENERAL INPUT DATA -

0 ** COORDINATES OF DISCRETE POINTS (METERS, METERS) **

(X,Y) = (614600.0, 4171000.0), (614850.0, 4171000.0), (615100.0, 4171000.0), (615350.0, 4171000.0), (615600.0, 4171000.0),
 (X,Y) = (615850.0, 4171000.0), (616100.0, 4171000.0), (616350.0, 4171000.0), (616600.0, 4171000.0), (614600.0, 4171250.0),
 (X,Y) = (614850.0, 4171250.0), (615100.0, 4171250.0), (615350.0, 4171250.0), (615600.0, 4171250.0), (615850.0, 4171250.0),
 (X,Y) = (616100.0, 4171250.0), (616350.0, 4171250.0), (616600.0, 4171250.0), (614600.0, 4171500.0), (614850.0, 4171500.0),
 (X,Y) = (615100.0, 4171500.0), (615350.0, 4171500.0), (615600.0, 4171500.0), (615850.0, 4171500.0), (616100.0, 4171500.0),
 (X,Y) = (616350.0, 4171500.0), (616600.0, 4171500.0), (614600.0, 4171750.0), (614850.0, 4171750.0), (615100.0, 4171750.0),
 (X,Y) = (615350.0, 4171750.0), (615600.0, 4171750.0), (615850.0, 4171750.0), (616100.0, 4171750.0), (616350.0, 4171750.0),
 (X,Y) = (616600.0, 4171750.0), (614600.0, 4172000.0), (614850.0, 4172000.0), (615100.0, 4172000.0), (615350.0, 4172000.0),
 (X,Y) = (615600.0, 4172000.0), (615850.0, 4172000.0), (616100.0, 4172000.0), (616350.0, 4172000.0), (616600.0, 4172000.0),
 (X,Y) = (614600.0, 4172250.0), (614850.0, 4172250.0), (615100.0, 4172250.0), (615350.0, 4172250.0), (615600.0, 4172250.0),
 (X,Y) = (615850.0, 4172250.0), (616100.0, 4172250.0), (616350.0, 4172250.0), (616600.0, 4172250.0), (614600.0, 4172500.0),
 (X,Y) = (614850.0, 4172500.0), (615100.0, 4172500.0), (615350.0, 4172500.0), (615600.0, 4172500.0), (615850.0, 4172500.0),
 (X,Y) = (616100.0, 4172500.0), (616350.0, 4172500.0), (616600.0, 4172500.0), (616170.0, 4172880.0), (612700.0, 4172880.0)

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0, 4170900.0),
(X,Y) = ( 612700.0, 4170800.0), ( 612700.0, 4170700.0), ( 612700.0, 4170600.0), ( 612700.0, 4170500.0), ( 612700.0, 4170400.0),
(X,Y) = ( 612700.0, 4170300.0), ( 612700.0, 4170200.0), ( 612700.0, 4170100.0), ( 615900.0, 4169300.0), ( 615900.0, 4169200.0),
(X,Y) = ( 613450.0, 4172400.0), ( 613450.0, 4172300.0), ( 613450.0, 4172200.0), ( 613450.0, 4172100.0), ( 613450.0, 4172000.0),
(X,Y) = ( 613450.0, 4171900.0), ( 613450.0, 4171800.0), ( 613450.0, 4171700.0), ( 613450.0, 4171600.0), ( 613450.0, 4171500.0),
(X,Y) = ( 613450.0, 4171400.0), ( 613450.0, 4171300.0), ( 613450.0, 4171200.0), ( 613450.0, 4171100.0), ( 613450.0, 4171000.0),
(X,Y) = ( 613000.0, 4172800.0), ( 613000.0, 4172600.0), ( 613000.0, 4172400.0), ( 613000.0, 4172200.0), ( 613000.0, 4172000.0),
(X,Y) = ( 613000.0, 4171800.0), ( 613000.0, 4171600.0), ( 613000.0, 4171400.0), ( 613000.0, 4171200.0), ( 613000.0, 4171000.0),
(X,Y) = ( 613000.0, 4170800.0), ( 613200.0, 4170800.0), ( 613400.0, 4170800.0), ( 613600.0, 4170800.0), ( 613800.0, 4170800.0),
(X,Y) = ( 614000.0, 4170800.0), ( 614200.0, 4170800.0), ( 614400.0, 4170800.0), ( 614600.0, 4170800.0), ( 614800.0, 4170800.0),
(X,Y) = ( 615100.0, 4170800.0), ( 615350.0, 4170800.0), ( 615600.0, 4170800.0), ( 615850.0, 4170800.0), ( 616100.0, 4170800.0),
(X,Y) = ( 613200.0, 4170400.0), ( 613400.0, 4170400.0), ( 613600.0, 4170400.0), ( 613800.0, 4170400.0), ( 614000.0, 4170400.0),
(X,Y) = ( 614200.0, 4170400.0), ( 614400.0, 4170400.0), ( 614600.0, 4170400.0), ( 614850.0, 4170400.0), ( 615100.0, 4170400.0),
(X,Y) = ( 615350.0, 4170400.0), ( 615600.0, 4170400.0), ( 615850.0, 4170400.0), ( 608000.0, 4166500.0), ( 608000.0, 4166400.0),
(X,Y) = ( 613000.0, 4167500.0), ( 615000.0, 4166500.0), ( 616000.0, 4169500.0), ( 616000.0, 4172500.0), ( 616000.0, 417500.0),
(X,Y) = ( 616000.0, 4175500.0), ( 614000.0, 4177500.0), ( 606000.0, 4174500.0), ( 609000.0, 4174500.0), ( 609000.0, 4174400.0),
(X,Y) = ( 609000.0, 4173500.0), ( 610000.0, 4175500.0), ( 610000.0, 4173500.0), ( 608000.0, 4177500.0), ( 608000.0, 4177400.0),
(X,Y) = ( 606000.0, 4171500.0), ( 606000.0, 4172500.0), ( 607000.0, 4172500.0), ( 607000.0, 4171500.0), ( 607000.0, 4171400.0),
(X,Y) = ( 608000.0, 4171500.0), ( 609000.0, 4172500.0), ( 610000.0, 4172500.0), ( 610000.0, 4171500.0), ( 610000.0, 4171400.0),
(X,Y) = ( 611000.0, 4169500.0), ( 612000.0, 4170500.0), ( 611000.0, 4172500.0), ( 613000.0, 4172500.0), ( 613000.0, 4172400.0),
(X,Y) = ( 608000.0, 4169500.0), ( 609000.0, 4169500.0), ( 610000.0, 4169500.0), ( 608000.0, 4170500.0), ( 608000.0, 4170400.0),
(X,Y) = ( 606000.0, 4170500.0), ( 607000.0, 4170500.0), ( 606000.0, 4169500.0), ( 607000.0, 4169500.0), ( 607000.0, 4169400.0),
(X,Y) = ( 614600.0, 4170150.0), ( 614850.0, 4170150.0), ( 615100.0, 4170150.0), ( 615350.0, 4170150.0), ( 615600.0, 4170150.0),
(X,Y) = ( 615100.0, 4169900.0), ( 615350.0, 4169900.0), ( 615900.0, 4172900.0), ( 616400.0, 4172900.0), ( 616900.0, 4172900.0),
(X,Y) = ( 617000.0, 4172900.0), ( 614900.0, 4171050.0), ( 615000.0, 4171050.0), ( 615100.0, 4171050.0), ( 615200.0, 4171050.0),
(X,Y) = ( 615300.0, 4171050.0), ( 614900.0, 4171150.0), ( 615000.0, 4171150.0), ( 615100.0, 4171150.0), ( 615200.0, 4171150.0),
(X,Y) = ( 615300.0, 4171150.0), ( 614900.0, 4171250.0), ( 615000.0, 4171250.0), ( 615200.0, 4171250.0), ( 615300.0, 4171250.0),
(X,Y) = ( 614900.0, 4171350.0), ( 615000.0, 4171350.0), ( 615100.0, 4171350.0), ( 615200.0, 4171350.0), ( 615300.0, 4171350.0),
(X,Y) = ( 614900.0, 4171450.0), ( 615000.0, 4171450.0), ( 615100.0, 4171450.0), ( 615200.0, 4171450.0), ( 615300.0, 4171450.0),

```

0 NUMBER OF SOURCES IN EACH CONCENTRATION REPORT GROUP 1 TO 2 = 1, 1,

SOURCE NUMBERS FOR EACH OF THE ABOVE GROUPS = 1, 2,

0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1987 MetDAT for 11/07/89

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TABLE 2

- GENERAL INPUT DATA -

			** DISCRETE POINT TERRAIN HEIGHTS (METERS) **						
0	X	Y	HEIGHT	X	Y	HEIGHT	X	Y	HEIGHT
	(METERS)	(METERS)		(METERS)	(METERS)		(METERS)	(METERS)	
00	614600.0	4171000.0	197.0000000	614850.0	4171000.0	200.0000000	615100.0	4171000.0	204.0000000
00	615350.0	4171000.0	216.0000000	615600.0	4171000.0	232.0000000	615850.0	4171000.0	238.0000000
00	616100.0	4171000.0	244.0000000	616350.0	4171000.0	250.0000000	616600.0	4171000.0	250.0000000

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00	614600.0	4171250.0	194.0000000	614850.0	4171250.0	196.0000000	615100.0	4171250.0	199.000000
00	615350.0	4171250.0	203.0000000	615600.0	4171250.0	213.0000000	615850.0	4171250.0	223.000000
00	616100.0	4171250.0	229.0000000	616350.0	4171250.0	229.0000000	616600.0	4171250.0	238.000000
00	614600.0	4171500.0	190.0000000	614850.0	4171500.0	192.0000000	615100.0	4171500.0	195.000000
00	615350.0	4171500.0	195.0000000	615600.0	4171500.0	200.0000000	615850.0	4171500.0	206.000000
00	616100.0	4171500.0	220.0000000	616350.0	4171500.0	230.0000000	616600.0	4171500.0	230.000000
00	614600.0	4171750.0	188.0000000	614850.0	4171750.0	187.0000000	615100.0	4171750.0	189.000000
00	615350.0	4171750.0	193.0000000	615600.0	4171750.0	197.0000000	615850.0	4171750.0	201.000000
00	616100.0	4171750.0	215.0000000	616350.0	4171750.0	212.0000000	616600.0	4171750.0	219.000000
00	614600.0	4172000.0	186.0000000	614850.0	4172000.0	187.0000000	615100.0	4172000.0	189.000000
00	615350.0	4172000.0	193.0000000	615600.0	4172000.0	197.0000000	615850.0	4172000.0	201.000000
00	616100.0	4172000.0	207.0000000	616350.0	4172000.0	210.0000000	616600.0	4172000.0	215.000000
00	614600.0	4172250.0	183.0000000	614850.0	4172250.0	187.0000000	615100.0	4172250.0	190.000000
00	615350.0	4172250.0	195.0000000	615600.0	4172250.0	200.0000000	615850.0	4172250.0	206.000000
00	616100.0	4172250.0	208.0000000	616350.0	4172250.0	213.0000000	616600.0	4172250.0	223.000000
00	614600.0	4172500.0	183.0000000	614850.0	4172500.0	186.0000000	615100.0	4172500.0	190.000000
00	615350.0	4172500.0	194.0000000	615600.0	4172500.0	200.0000000	615850.0	4172500.0	204.000000
00	616100.0	4172500.0	207.0000000	616350.0	4172500.0	213.0000000	616600.0	4172500.0	219.000000
00	616170.0	4172880.0	210.0000000	612700.0	4170900.0	179.0000000	612700.0	4170800.0	180.000000
00	612700.0	4170700.0	181.0000000	612700.0	4170600.0	182.0000000	612700.0	4170500.0	182.000000
00	612700.0	4170400.0	181.0000000	612700.0	4170300.0	181.0000000	612700.0	4170200.0	180.000000
00	612700.0	4170100.0	180.0000000	615900.0	4169300.0	226.0000000	613450.0	4172500.0	174.000000
00	613450.0	4172400.0	175.0000000	613450.0	4172300.0	175.0000000	613450.0	4172200.0	176.000000
00	613450.0	4172100.0	177.0000000	613450.0	4172000.0	178.0000000	613450.0	4171900.0	179.000000
00	613450.0	4171800.0	180.0000000	613450.0	4171700.0	181.0000000	613450.0	4171600.0	182.000000
00	613450.0	4171500.0	183.0000000	613450.0	4171400.0	183.0000000	613450.0	4171300.0	185.000000
00	613450.0	4171200.0	186.0000000	613450.0	4171100.0	187.0000000	613450.0	4171000.0	188.000000
00	613000.0	4172800.0	170.0000000	613000.0	4172600.0	171.0000000	613000.0	4172400.0	172.000000
00	613000.0	4172200.0	173.0000000	613000.0	4172000.0	176.0000000	613000.0	4171800.0	178.000000
00	613000.0	4171600.0	179.0000000	613000.0	4171400.0	180.0000000	613000.0	4171200.0	181.000000
00	613000.0	4171000.0	181.0000000	613000.0	4170800.0	184.0000000	613200.0	4170800.0	185.000000
00	613400.0	4170800.0	187.0000000	613600.0	4170800.0	190.0000000	613800.0	4170800.0	192.000000
00	614000.0	4170800.0	194.0000000	614200.0	4170800.0	196.0000000	614400.0	4170800.0	195.000000
00	614600.0	4170800.0	197.0000000	614850.0	4170800.0	204.0000000	615100.0	4170800.0	212.000000
00	615350.0	4170800.0	250.0000000	615600.0	4170800.0	250.0000000	615850.0	4170800.0	251.000000
00	613000.0	4170400.0	184.0000000	613200.0	4170400.0	187.0000000	613400.0	4170400.0	188.000000
00	613600.0	4170400.0	190.0000000	613800.0	4170400.0	193.0000000	614000.0	4170400.0	197.000000
00	614200.0	4170400.0	195.0000000	614400.0	4170400.0	201.0000000	614600.0	4170400.0	206.000000
00	614850.0	4170400.0	226.0000000	615100.0	4170400.0	239.0000000	615350.0	4170400.0	238.000000

615600.0 4170400.0 256.0000000 615850.0 4170400.0 274.0000000 608000.0 4166500.0 143.0
00
0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1987 MatDAT for 11/07/89 DATE
CASE 1, PAGE 4

TABLE 2 (CONT)

- GENERAL INPUT DATA -

			- DISCRETE POINT TERRAIN HEIGHTS (METERS) *-*						
0	X (METERS)	Y (METERS)	HEIGHT	X (METERS)	Y (METERS)	HEIGHT	X (METERS)	Y (METERS)	HEIGHT
00	611000.0	4165500.0	274.0000000	613000.0	4167500.0	207.0000000	615000.0	4166500.0	323.0
00	616000.0	4169500.0	226.0000000	616000.0	4172500.0	204.0000000	614000.0	4174500.0	168.0
00	616000.0	4175500.0	280.0000000	614000.0	4177500.0	238.0000000	606000.0	4174500.0	152.0
00	609000.0	4174500.0	183.0000000	612000.0	4174500.0	158.0000000	609000.0	4173500.0	143.0
00	610000.0	4175500.0	152.0000000	610000.0	4173500.0	171.0000000	608000.0	4177500.0	171.0
00	611000.0	4177500.0	168.0000000	606000.0	4171500.0	131.0000000	606000.0	4172500.0	125.0
00	607000.0	4172500.0	134.0000000	607000.0	4171500.0	137.0000000	608000.0	4172500.0	142.0
00	608000.0	4171500.0	143.0000000	609000.0	4172500.0	165.0000000	610000.0	4172500.0	177.0
00	610000.0	4171500.0	158.0000000	612000.0	4171500.0	171.0000000	611000.0	4169500.0	177.0
00	612000.0	4170500.0	177.0000000	611000.0	4172500.0	162.0000000	613000.0	4172500.0	172.0
00	612000.0	4173500.0	162.0000000	608000.0	4169500.0	152.0000000	609000.0	4169500.0	158.0
00	610000.0	4169500.0	166.0000000	608000.0	4170500.0	146.0000000	609000.0	4170500.0	155.0
00	606000.0	4170500.0	131.0000000	607000.0	4170500.0	140.0000000	606000.0	4169500.0	130.0
00	607000.0	4169500.0	140.0000000	606000.0	4168500.0	133.0000000	614600.0	4170150.0	207.0
00	614850.0	4170150.0	219.0000000	615100.0	4170150.0	238.0000000	615350.0	4170150.0	251.0
00	614850.0	4169900.0	219.0000000	615100.0	4169900.0	226.0000000	615350.0	4169900.0	241.0
00	615900.0	4172900.0	204.0000000	616400.0	4172900.0	219.0000000	616700.0	4172900.0	226.0
00	617000.0	4172900.0	241.0000000	614900.0	4171050.0	201.0000000	615000.0	4171050.0	202.0
00	615100.0	4171050.0	202.0000000	615200.0	4171050.0	206.0000000	615300.0	4171050.0	209.0
00	614900.0	4171150.0	200.0000000	615000.0	4171150.0	201.0000000	615100.0	4171150.0	201.0
00	615200.0	4171150.0	203.0000000	615300.0	4171150.0	206.0000000	614900.0	4171250.0	197.0
00	615000.0	4171250.0	198.0000000	615200.0	4171250.0	201.0000000	615300.0	4171250.0	202.0
00	614900.0	4171350.0	195.0000000	615000.0	4171350.0	196.0000000	615100.0	4171350.0	197.0
00	615200.0	4171350.0	198.0000000	615300.0	4171350.0	198.0000000	614900.0	4171450.0	194.0
00	615000.0	4171450.0	194.0000000	615100.0	4171450.0	196.0000000	615200.0	4171450.0	196.0
00	615300.0	4171450.0	195.0000000						

0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1987 MatDAT for 11/07/89 DATE
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TABLE 3

- SOURCE INPUT DATA -

C T SOURCE T		SOURCE	X	Y	HEIGHT	IF TYPE=0	IF TYPE=0	ANGLE	STACK	ELEVATION	Pi
CULATE DISTRIBUTION											
A A NUMBER Y		STRENGTH	COORDINATE	COORDINATE	ABOVE	TEMP (DEG K)	VOL. EMISS.	TO	INNER	AT	
TLING		FREQUENCY									

R P	P (GRAMS/SEC)	(METERS)	(METERS)	GROUND	IF TYPE=10R2	RT. M**3/SEC	LONG	RADIUS	STACK	VEL
OCITY	OF									
D E	E			(METERS)	LENGTH SHORT	IF TYPE=10R2	SIDE	(METERS)	BASE	(METE
RS/SEC)	OCCURRENCE									
					SIDE (MTRS)	LENGTH LONG	(DEG)		(METERS)	
	(FRACTION)									

SIDE (MTRS)

X	1 0	1.000	614750.00	4171180.00	11.70	1255.000	1.240	0.0	0.230	195.00
X	2 0	1.000	614750.00	4171180.00	3.80	293.000	0.000	0.0	0.000	195.00
**	-WARNING Z > HM, SOURCE	1, HOUR	11, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	1, HOUR	8, X=	616000.0, Y=	4175500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	8, X=	616000.0, Y=	4175500.0					
**	-WARNING Z > HM, SOURCE	1, HOUR	10, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	10, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	1, HOUR	23, X=	616000.0, Y=	4175500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	23, X=	616000.0, Y=	4175500.0					
**	-WARNING Z > HM, SOURCE	1, HOUR	15, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	15, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	1, HOUR	21, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	21, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	1, HOUR	1, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	1, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	2, X=	611000.0, Y=	4165500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	2, X=	613000.0, Y=	4167500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	8, X=	611000.0, Y=	4165500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	10, X=	611000.0, Y=	4165500.0					
**	-WARNING Z > HM, SOURCE	1, HOUR	15, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	15, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	16, X=	611000.0, Y=	4165500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	7, X=	611000.0, Y=	4165500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	9, X=	614850.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	9, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	9, X=	614850.0, Y=	4170150.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	9, X=	614850.0, Y=	4169900.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	614850.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615100.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	614850.0, Y=	4170150.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615100.0, Y=	4170150.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615350.0, Y=	4170150.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	614850.0, Y=	4169900.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615100.0, Y=	4169900.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	11, X=	615350.0, Y=	4169900.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	13, X=	614850.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	13, X=	615000.0, Y=	4166500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	13, X=	614850.0, Y=	4170150.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	13, X=	614850.0, Y=	4169900.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	15, X=	611000.0, Y=	4165500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	3, X=	615900.0, Y=	4169300.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	3, X=	615100.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	3, X=	615350.0, Y=	4170400.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	3, X=	616000.0, Y=	4169500.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	3, X=	615100.0, Y=	4170150.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	3, X=	615350.0, Y=	4170150.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	3, X=	615350.0, Y=	4169900.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	9, X=	615900.0, Y=	4169300.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	9, X=	614850.0, Y=	4170800.0					
**	-WARNING Z > HM, SOURCE	2, HOUR	9, X=	615100.0, Y=	4170800.0					

0** TOO MANY MESSAGES PROG STOPS PRINTING THEM

0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1987 MetDAT for 11/07/89
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TABLE 4

24 HOUR GROUND LEVEL CONCENTRATION (MICROGRAMS/CUBIC METER) FROM SOURCES 1

AVERAGED OVER 350 DAYS

- HOUR(S) 0 TO 2300 -

- DISCRETE POINT RECEPTORS -

(THE MAXIMUM CONCENTRATION IS, 4.6442852 AT X= 615000.0, Y=4171150.0)

0	X	Y	CONCENTRATION	X	Y	CONCENTRATION	X	Y	CONCENTRATION
ON	(METERS)	(METERS)		(METERS)	(METERS)		(METERS)	(METERS)	

31	614600.0	4171000.0	1.0469987	614850.0	4171000.0	0.4981656	615100.0	4171000.0	0.659
18	615350.0	4171000.0	1.2051911	615600.0	4171000.0	1.1501386	615850.0	4171000.0	0.776
21	616100.0	4171000.0	0.5223747	616350.0	4171000.0	0.4107473	616600.0	4171000.0	0.341
74	614600.0	4171250.0	0.1271489	614850.0	4171250.0	1.4190742	615100.0	4171250.0	3.536
45	615350.0	4171250.0	2.3725834	615600.0	4171250.0	1.7335718	615850.0	4171250.0	1.127
25	616100.0	4171250.0	0.7253341	616350.0	4171250.0	0.4980927	616600.0	4171250.0	0.366
69	614600.0	4171500.0	0.0986795	614850.0	4171500.0	0.1758600	615100.0	4171500.0	4.076
32	615350.0	4171500.0	2.4097314	615600.0	4171500.0	1.5107678	615850.0	4171500.0	1.093
33	616100.0	4171500.0	0.8370209	616350.0	4171500.0	0.6471191	616600.0	4171500.0	0.466
47	614600.0	4171750.0	0.1551254	614850.0	4171750.0	0.1964363	615100.0	4171750.0	0.630
03	615350.0	4171750.0	2.4871686	615600.0	4171750.0	1.9512891	615850.0	4171750.0	1.246
08	616100.0	4171750.0	0.8883253	616350.0	4171750.0	0.6153250	616600.0	4171750.0	0.473
71	614600.0	4172000.0	0.2164726	614850.0	4172000.0	0.2449786	615100.0	4172000.0	0.329
54	615350.0	4172000.0	1.0684907	615600.0	4172000.0	1.7027591	615850.0	4172000.0	1.377
89	616100.0	4172000.0	0.9938025	616350.0	4172000.0	0.7006185	616600.0	4172000.0	0.522
31	614600.0	4172250.0	0.1850334	614850.0	4172250.0	0.2318907	615100.0	4172250.0	0.289
20	615350.0	4172250.0	0.5088605	615600.0	4172250.0	0.9586544	615850.0	4172250.0	1.209
00	616100.0	4172250.0	0.9644936	616350.0	4172250.0	0.7798820	616600.0	4172250.0	0.571
12	614600.0	4172500.0	0.1524690	614850.0	4172500.0	0.1935129	615100.0	4172500.0	0.291
51	615350.0	4172500.0	0.3202378	615600.0	4172500.0	0.5175229	615850.0	4172500.0	0.714
75	616100.0	4172500.0	0.8286666	616350.0	4172500.0	0.6858212	616600.0	4172500.0	0.587
87	616170.0	4172880.0	0.4616629	612700.0	4170900.0	0.1402320	612700.0	4170800.0	0.152
91	612700.0	4170700.0	0.1755740	612700.0	4170600.0	0.1853503	612700.0	4170500.0	0.194
55	612700.0	4170400.0	0.1830518	612700.0	4170300.0	0.1646100	612700.0	4170200.0	0.139
11	612700.0	4170100.0	0.1310493	615900.0	4169300.0	0.0841933	613450.0	4172500.0	0.231
66	613450.0	4172400.0	0.2558121	613450.0	4172300.0	0.2573076	613450.0	4172200.0	0.298
83	613450.0	4172100.0	0.4007683	613450.0	4172000.0	0.4720443	613450.0	4171900.0	0.549
29	613450.0	4171800.0	0.6307616	613450.0	4171700.0	0.6830010	613450.0	4171600.0	0.631
09	613450.0	4171500.0	0.6093460	613450.0	4171400.0	0.4707285	613450.0	4171300.0	0.415
97	613450.0	4171200.0	0.4149967	613450.0	4171100.0	0.3493244	613450.0	4171000.0	0.258
94	613000.0	4172800.0	0.1868967	613000.0	4172600.0	0.1979085	613000.0	4172400.0	0.303
28	613000.0	4172200.0	0.3776866	613000.0	4172000.0	0.4828006	613000.0	4171800.0	0.493
06	613000.0	4171600.0	0.4748664	613000.0	4171400.0	0.2985692	613000.0	4171200.0	0.308
93	613000.0	4171000.0	0.2024719	613000.0	4170800.0	0.2171568	613200.0	4170800.0	0.256
14	613400.0	4170800.0	0.3180050	613600.0	4170800.0	0.4045433	613800.0	4170800.0	0.455
34	614000.0	4170800.0	0.4815166	614200.0	4170800.0	0.5412877	614400.0	4170800.0	0.706
08	614600.0	4170800.0	0.8282831	614850.0	4170800.0	0.7411853	615100.0	4170800.0	0.452
50	615350.0	4170800.0	0.4883378	615600.0	4170800.0	0.3221190	615850.0	4170800.0	0.362
	613000.0	4170400.0	0.1948230	613200.0	4170400.0	0.2085925	613400.0	4170400.0	0.227

42 613600.0 4170400.0 0.2632340 613800.0 4170400.0 0.2805862 614000.0 4170400.0 0.41730
 37 614200.0 4170400.0 0.4568837 614400.0 4170400.0 0.5005922 614600.0 4170400.0 0.57208
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 0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1987 MetDAT for 11/07/89 DATE
 CASE350, PAGE 7

TABLE 4 (CONT)

24 HOUR GROUND LEVEL CONCENTRATION (MICROGRAMS/CUBIC METER) FROM SOURCES 1
 AVERAGED OVER 350 DAYS
 - HOUR(S) 0 TO 2300 -

- DISCRETE POINT RECEPTORS -

(THE MAXIMUM CONCENTRATION IS, 4.6442852 AT X= 615000.0, Y=4171150.0)

ON	X (METERS)	Y (METERS)	CONCENTRATION	X (METERS)	Y (METERS)	CONCENTRATION	X (METERS)	Y (METERS)	CONCENTRATION
42	613600.0	4170400.0	0.2632340	613800.0	4170400.0	0.2805862	614000.0	4170400.0	0.41730
37	614200.0	4170400.0	0.4568837	614400.0	4170400.0	0.5005922	614600.0	4170400.0	0.57208
42									
0									
57	614850.0	4170400.0	0.7411456	615100.0	4170400.0	0.2957101	615350.0	4170400.0	0.34223
02	615600.0	4170400.0	0.2314216	615850.0	4170400.0	0.1439028	608000.0	4166500.0	0.01673
36	611000.0	4165500.0	0.0204307	613000.0	4167500.0	0.0553808	615000.0	4166500.0	0.02869
32	616000.0	4169500.0	0.0912046	616000.0	4172500.0	0.7855118	614000.0	4174500.0	0.05617
80	616000.0	4175500.0	0.0502620	614000.0	4177500.0	0.0208296	606000.0	4174500.0	0.04679
95	609000.0	4174500.0	0.0740282	612000.0	4174500.0	0.0649148	609000.0	4173500.0	0.09216
51	610000.0	4175500.0	0.0431739	610000.0	4173500.0	0.1189314	608000.0	4177500.0	0.02503
01	611000.0	4177500.0	0.0171584	606000.0	4171500.0	0.0251938	606000.0	4172500.0	0.02736
85	607000.0	4172500.0	0.0401749	607000.0	4171500.0	0.0310772	608000.0	4172500.0	0.05936
92	608000.0	4171500.0	0.0398568	609000.0	4172500.0	0.0895108	610000.0	4172500.0	0.13749
66	610000.0	4171500.0	0.0772651	612000.0	4171500.0	0.1642279	611000.0	4169500.0	0.06249
34	612000.0	4170500.0	0.1145728	611000.0	4172500.0	0.1694036	613000.0	4172500.0	0.25124
21	612000.0	4173500.0	0.1010249	608000.0	4169500.0	0.0262621	609000.0	4169500.0	0.03639
03	610000.0	4169500.0	0.0524940	608000.0	4170500.0	0.0253428	609000.0	4170500.0	0.03083
90	606000.0	4170500.0	0.0176039	607000.0	4170500.0	0.0210801	606000.0	4169500.0	0.01547
94	607000.0	4169500.0	0.0204961	606000.0	4168500.0	0.0183298	614600.0	4170150.0	0.38999
92	614850.0	4170150.0	0.4037849	615100.0	4170150.0	0.3198134	615350.0	4170150.0	0.22707
27	614850.0	4169900.0	0.2911121	615100.0	4169900.0	0.1937198	615350.0	4169900.0	0.12243
71	615900.0	4172900.0	0.3713442	616400.0	4172900.0	0.5000103	616700.0	4172900.0	0.46348
70	617000.0	4172900.0	0.3910107	614900.0	4171050.0	0.6402957	615000.0	4171050.0	0.83802
60	615100.0	4171050.0	1.0874790	615200.0	4171050.0	1.5109316	615300.0	4171050.0	1.65813
01	614900.0	4171150.0	4.0387173	615000.0	4171150.0	4.6442852	615100.0	4171150.0	3.56208
16	615200.0	4171150.0	2.9392424	615300.0	4171150.0	2.4647818	614900.0	4171250.0	3.46377
87	615000.0	4171250.0	4.1622486	615200.0	4171250.0	3.0802402	615300.0	4171250.0	2.55594
61	614900.0	4171350.0	2.5263746	615000.0	4171350.0	4.0897985	615100.0	4171350.0	3.52047
31	615200.0	4171350.0	2.8388202	615300.0	4171350.0	2.3576369	614900.0	4171450.0	0.45526
06	615000.0	4171450.0	3.2605357	615100.0	4171450.0	4.2941728	615200.0	4171450.0	3.39423
0	615300.0	4171450.0	2.4623039						

TABLE 5

24 HOUR GROUND LEVEL CONCENTRATION (MICROGRAMS/CUBIC METER) FROM SOURCES 2
 AVERAGED OVER 350 DAYS
 - HOUR(S) 0 TO 2300 -

- DISCRETE POINT RECEPTORS -

(THE MAXIMUM CONCENTRATION IS, 276.0278320 AT X= 614850.0, Y=4171250.0)

0	X	Y	CONCENTRATION	X	Y	CONCENTRATION	X	Y	CONCENTR.
ON	(METERS)	(METERS)		(METERS)	(METERS)		(METERS)	(METERS)	

24	614600.0	4171000.0	28.8778419	614850.0	4171000.0	18.3677311	615100.0	4171000.0	3.96
75	615350.0	4171000.0	3.1713777	615600.0	4171000.0	2.2460258	615850.0	4171000.0	1.36
41	616100.0	4171000.0	0.8688131	616350.0	4171000.0	0.7167347	616600.0	4171000.0	0.62
29	614600.0	4171250.0	173.8570251	614850.0	4171250.0	276.0278320	615100.0	4171250.0	24.92
01	615350.0	4171250.0	6.7002568	615600.0	4171250.0	3.5496535	615850.0	4171250.0	2.03
86	616100.0	4171250.0	1.2601453	616350.0	4171250.0	0.8482485	616600.0	4171250.0	0.60
64	614600.0	4171500.0	11.1382942	614850.0	4171500.0	13.7900972	615100.0	4171500.0	24.07
17	615350.0	4171500.0	9.6164951	615600.0	4171500.0	4.4412651	615850.0	4171500.0	2.39
37	616100.0	4171500.0	1.5904014	616350.0	4171500.0	1.1917702	616600.0	4171500.0	0.84
30	614600.0	4171750.0	3.7201605	614850.0	4171750.0	5.0504684	615100.0	4171750.0	5.89
61	615350.0	4171750.0	8.2343721	615600.0	4171750.0	5.2889304	615850.0	4171750.0	2.87
89	616100.0	4171750.0	1.7488478	616350.0	4171750.0	1.2327535	616600.0	4171750.0	0.86
45	614600.0	4172000.0	2.9636111	614850.0	4172000.0	2.7400446	615100.0	4172000.0	2.42
78	615350.0	4172000.0	3.8550346	615600.0	4172000.0	4.1571307	615850.0	4172000.0	2.90
58	616100.0	4172000.0	2.0551753	616350.0	4172000.0	1.3648136	616600.0	4172000.0	1.00
55	614600.0	4172250.0	1.4682192	614850.0	4172250.0	1.5572208	615100.0	4172250.0	1.48
92	615350.0	4172250.0	1.8379190	615600.0	4172250.0	2.2877297	615850.0	4172250.0	2.43
19	616100.0	4172250.0	1.8334339	616350.0	4172250.0	1.4882669	616600.0	4172250.0	1.04
00	614600.0	4172500.0	0.8038799	614850.0	4172500.0	1.0186466	615100.0	4172500.0	1.31
49	615350.0	4172500.0	1.1403518	615600.0	4172500.0	1.4350324	615850.0	4172500.0	1.46
02	616100.0	4172500.0	1.6072007	616350.0	4172500.0	1.2024717	616600.0	4172500.0	1.06
29	616170.0	4172880.0	0.8838859	612700.0	4170900.0	0.5463183	612700.0	4170800.0	0.63
25	612700.0	4170700.0	0.6502616	612700.0	4170600.0	0.7682509	612700.0	4170500.0	0.77
53	612700.0	4170400.0	0.6801947	612700.0	4170300.0	0.6377880	612700.0	4170200.0	0.46
16	612700.0	4170100.0	0.4148355	615900.0	4169300.0	0.1981782	613450.0	4172500.0	1.11
11	613450.0	4172400.0	1.3186747	613450.0	4172300.0	1.3650370	613450.0	4172200.0	1.52
57	613450.0	4172100.0	2.1541018	613450.0	4172000.0	2.6598020	613450.0	4171900.0	3.13
60	613450.0	4171800.0	3.8043411	613450.0	4171700.0	4.7171826	613450.0	4171600.0	4.54
37	613450.0	4171500.0	4.3638115	613450.0	4171400.0	3.4080222	613450.0	4171300.0	2.94
26	613450.0	4171200.0	2.9437706	613450.0	4171100.0	2.2726879	613450.0	4171000.0	1.30
	613000.0	4172800.0	0.7745293	613000.0	4172600.0	0.7860025	613000.0	4172400.0	1.26

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50	613000.0	4172200.0	1.6446428	613000.0	4172000.0	2.2250397	613000.0	4171800.0	2.62269
50	613000.0	4171600.0	2.4607852	613000.0	4171400.0	1.5270696	613000.0	4171200.0	1.66206
43	613000.0	4171000.0	0.9082640	613000.0	4170800.0	0.8907150	613200.0	4170800.0	1.08304
39	613400.0	4170800.0	1.5699267	613600.0	4170800.0	2.1910532	613800.0	4170800.0	2.84363
53	614000.0	4170800.0	2.9379952	614200.0	4170800.0	4.0652952	614400.0	4170800.0	6.82620
08	614600.0	4170800.0	6.6217675	614850.0	4170800.0	5.3348641	615100.0	4170800.0	1.87723
74	615350.0	4170800.0	1.0963480	615600.0	4170800.0	0.6071693	615850.0	4170800.0	0.71686
34	613000.0	4170400.0	0.7595494	613200.0	4170400.0	0.7250597	613400.0	4170400.0	0.91483
69	613600.0	4170400.0	1.0051817	613800.0	4170400.0	1.1371013	614000.0	4170400.0	1.70812
31	614200.0	4170400.0	1.7528957	614400.0	4170400.0	1.9944346	614600.0	4170400.0	2.18241

0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1987 MetDAT for 11/07/89
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DATE

TABLE 5 (CONT)

24 HOUR GROUND LEVEL CONCENTRATION (MICROGRAMS/CUBIC METER) FROM SOURCES 2
AVERAGED OVER 350 DAYS
- HOUR(S) 0 TO 2300 -

- DISCRETE POINT RECEPTORS -

(THE MAXIMUM CONCENTRATION IS, 276.0278320 AT X= 614850.0, Y=4171250.0)

0	X	Y	CONCENTRATION	X	Y	CONCENTRATION	X	Y	CONCENTRATION
ON	(METERS)	(METERS)		(METERS)	(METERS)		(METERS)	(METERS)	
37	614850.0	4170400.0	1.9468886	615100.0	4170400.0	0.5744330	615350.0	4170400.0	0.89289
23	615600.0	4170400.0	0.5475441	615850.0	4170400.0	0.3014582	608000.0	4166500.0	0.03760
69	611000.0	4165500.0	0.0376787	613000.0	4167500.0	0.1522582	615000.0	4166500.0	0.05863
88	616000.0	4169500.0	0.2280954	616000.0	4172500.0	1.5000879	614000.0	4174500.0	0.17245
95	616000.0	4175500.0	0.1150992	614000.0	4177500.0	0.0470181	606000.0	4174500.0	0.15300
93	609000.0	4174500.0	0.2009096	612000.0	4174500.0	0.2144146	609000.0	4173500.0	0.28905
75	610000.0	4175500.0	0.1293832	610000.0	4173500.0	0.3528273	608000.0	4177500.0	0.07242
26	611000.0	4177500.0	0.0640253	606000.0	4171500.0	0.0806300	606000.0	4172500.0	0.08544
89	607000.0	4172500.0	0.1250977	607000.0	4171500.0	0.1015392	608000.0	4172500.0	0.18576
74	608000.0	4171500.0	0.1332307	609000.0	4172500.0	0.2756498	610000.0	4172500.0	0.46090
64	610000.0	4171500.0	0.2731918	612000.0	4171500.0	0.6481342	611000.0	4169500.0	0.20019
26	612000.0	4170500.0	0.3877836	611000.0	4172500.0	0.6271850	613000.0	4172500.0	1.01719
81	612000.0	4173500.0	0.3290863	608000.0	4169500.0	0.0784379	609000.0	4169500.0	0.12979
21	610000.0	4169500.0	0.1545545	608000.0	4170500.0	0.0691204	609000.0	4170500.0	0.08498
43	606000.0	4170500.0	0.0502134	607000.0	4170500.0	0.0587043	606000.0	4169500.0	0.04696
91	607000.0	4169500.0	0.0589572	606000.0	4168500.0	0.0609990	614600.0	4170150.0	0.98642
29	614850.0	4170150.0	0.9612219	615100.0	4170150.0	0.8073786	615350.0	4170150.0	0.53964
83	614850.0	4169900.0	0.6794418	615100.0	4169900.0	0.4481175	615350.0	4169900.0	0.23981
03	615900.0	4172900.0	0.8606009	616400.0	4172900.0	0.8806032	616700.0	4172900.0	0.78521
57	617000.0	4172900.0	0.6832103	614900.0	4171050.0	18.0296364	615000.0	4171050.0	7.79073
	615100.0	4171050.0	6.8887687	615200.0	4171050.0	5.9890776	615300.0	4171050.0	4.71051

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98	614900.0	4171150.0	74.0240097	615000.0	4171150.0	28.0841522	615100.0	4171150.0	17.353
56	615200.0	4171150.0	10.5381250	615300.0	4171150.0	6.7413993	614900.0	4171250.0	144.143
42	615000.0	4171250.0	45.2414703	615200.0	4171250.0	12.9523954	615300.0	4171250.0	7.951
99	614900.0	4171350.0	75.5827866	615000.0	4171350.0	56.6075706	615100.0	4171350.0	28.441
61	615200.0	4171350.0	15.4436121	615300.0	4171350.0	10.0012245	614900.0	4171450.0	24.271
46	615000.0	4171450.0	32.1900291	615100.0	4171450.0	26.9981880	615200.0	4171450.0	17.891
16	615300.0	4171450.0	11.5078144						

SHORTZ RESULTS
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lw / OmniLaser

lw ra:jor Job: llshz88b.fin.sou Date: Tue Nov 7 08:41:36 1989

lw ra:jor Job: llshz88b.fin.sou Date: Tue Nov 7 08:41:36 1989

lw ra:jor Job: llshz88b.fin.sou Date: Tue Nov 7 08:41:36 1989

lw ra:jor Job: llshz88b.fin.sou Date: Tue Nov 7 08:41:36 1989

1 SHORTZ (VERSION 82326)
AN AIR QUALITY DISPERSION MODEL IN
SECTION 4. ADDITIONAL MODELS FOR REGULATORY USE,
IN UNAMAP (VERSION 6) JULY 86.
SOURCE: FILE 29 ON UNAMAP MAGNETIC TAPE FROM NTIS.
0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1988 MetDAT for 11/06/89 DATE
CASE 1, PAGE 1

TABLE 1

- GENERAL INPUT DATA -

NUMBER OF INPUT SOURCES	(NSOURC) =	2
NUMBER OF X GRID COORDINATES	(NXPNTS) =	0
NUMBER OF Y GRID COORDINATES	(NYPNTS) =	0
TOTAL NUMBER OF HOURS IN EACH DAY	(NHOURLS) =	24
NUMBER OF DAYS OR CASES	(NDAYS) =	352
NUMBER OF CONCENTRATION REPORTS (SOURCE COMBINATIONS)	(NGROUP) =	2
NUMBER OF DISCRETE CALCULATION POINTS	(NXWYPT) =	205
MET DATA INPUT CARD RATE (1=HOURLY, 2=2 HOURLY, ETC)	(ISW(1)) =	1
IS CONCENTRATION CALCULATED AT BASE RATE PRINTED	(ISW(2)) =	0
NO. OF HOURS IN FIRST AVERAGE CONCENTRATION PRINTED	(ISW(3)) =	24
NO. OF HOURS IN SECOND AVERAGE CONCENTRATION PRINTED	(ISW(4)) =	0
NO. OF HOURS IN THIRD AVERAGE CONCENTRATION PRINTED	(ISW(5)) =	0
ARE TERRAIN ELEVATION HEIGHTS USED	(ISW(7)) =	1
IS WIND SPEED TERRAIN FOLLOWING	(ISW(9)) =	1
ARE CONCENTRATIONS AVERAGED OVER DAYS OR CASES	(ISW(11)) =	1
IS THE FORMAT FOR SOURCE DATA READ	(ISW(12)) =	0
IS COORDINATE SYSTEM CARTESIAN (=0) OR POLAR (=1)	(ISW(13)) =	0
ARE DISCRETE RECEPTORS CARTESIAN (=0) OR POLAR (=1)	(ISW(14)) =	0
ARE SOURCE COORDINATES CARTESIAN (=0) OR POLAR (=1)	(ISW(15)) =	0
SIGAPU SIGAPU FOR ALL SOURCES OPTION	(ISW(16)) =	0
RURAL/URBAN MODE OPTION (RURAL=0), (URBAN=1)	(ISW(17)) =	0
MODEL UNITS CONVERSION FACTOR	(TK) =	0.10000000E+07
ACCELERATION OF GRAVITY	(G) =	9.8000 (METERS/SEC**2)
HEIGHT OF MEASUREMENT OF WIND SPEED, ETC	(ZR) =	10.0000 (METERS)
ENTRAINMENT COEFFICIENT FOR UNSTABLE ATMOSPHERE	(GAMMA1) =	0.600
ENTRAINMENT COEFFICIENT FOR STABLE ATMOSPHERE	(GAMMA2) =	0.660
DISTANCE OVER WHICH RECTILINEAR PLUME EXPANSION OCCURS	(XRY) =	50.0000 (METERS)
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION	(DECAY) =	0.00000000E+00
ANGULAR DISPL OF GRID SYSTEM FROM TRUE NORTH	(ROTATE) =	0.000
ELEVATION OF BASE OF WEATHER STATION	(HA) =	180.00 (METERS)
X ORIGIN OF POLAR COORDINATES	(UTMX) =	0.00 (METERS)
Y ORIGIN OF POLAR COORDINATES	(UTMY) =	0.00 (METERS)

0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1988 MetDAT for 11/06/89 DATE
CASE 1, PAGE 2

TABLE 1 (CONT)

- GENERAL INPUT DATA -

0 *** COORDINATES OF DISCRETE POINTS (METERS, METERS) ***

(X,Y) = (614600.0, 4171000.0), (614850.0, 4171000.0), (615100.0, 4171000.0), (615350.0, 4171000.0), (615600.0, 4171000.0),
(X,Y) = (615850.0, 4171000.0), (616100.0, 4171000.0), (616350.0, 4171000.0), (616600.0, 4171000.0), (614600.0, 4171250.0),
(X,Y) = (614850.0, 4171250.0), (615100.0, 4171250.0), (615350.0, 4171250.0), (615600.0, 4171250.0), (615850.0, 4171250.0),
(X,Y) = (616100.0, 4171250.0), (616350.0, 4171250.0), (616600.0, 4171250.0), (614600.0, 4171500.0), (614850.0, 4171500.0),
(X,Y) = (615100.0, 4171500.0), (615350.0, 4171500.0), (615600.0, 4171500.0), (615850.0, 4171500.0), (616100.0, 4171500.0),
(X,Y) = (616350.0, 4171500.0), (616600.0, 4171500.0), (614600.0, 4171750.0), (614850.0, 4171750.0), (615100.0, 4171750.0),
(X,Y) = (615350.0, 4171750.0), (615600.0, 4171750.0), (615850.0, 4171750.0), (616100.0, 4171750.0), (616350.0, 4171750.0),
(X,Y) = (616600.0, 4171750.0), (614600.0, 4172000.0), (614850.0, 4172000.0), (615100.0, 4172000.0), (615350.0, 4172000.0),
(X,Y) = (615600.0, 4172000.0), (615850.0, 4172000.0), (616100.0, 4172000.0), (616350.0, 4172000.0), (616600.0, 4172000.0),
(X,Y) = (614600.0, 4172250.0), (614850.0, 4172250.0), (615100.0, 4172250.0), (615350.0, 4172250.0), (615600.0, 4172250.0),
(X,Y) = (615850.0, 4172250.0), (616100.0, 4172250.0), (616350.0, 4172250.0), (616600.0, 4172250.0), (614600.0, 4172500.0),
(X,Y) = (614850.0, 4172500.0), (615100.0, 4172500.0), (615350.0, 4172500.0), (615600.0, 4172500.0), (615850.0, 4172500.0),
(X,Y) = (616100.0, 4172500.0), (616350.0, 4172500.0), (616600.0, 4172500.0), (616170.0, 4172880.0), (612700.0, 4172880.0)

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.0, 4170900.0),
(X,Y) = ( 612700.0, 4170800.0), ( 612700.0, 4170700.0), ( 612700.0, 4170600.0), ( 612700.0, 4170500.0), ( 612700.0, 4170400.0),
(X,Y) = ( 612700.0, 4170300.0), ( 612700.0, 4170200.0), ( 612700.0, 4170100.0), ( 615900.0, 4169300.0), ( 613450.0, 4172500.0),
(X,Y) = ( 613450.0, 4172400.0), ( 613450.0, 4172300.0), ( 613450.0, 4172200.0), ( 613450.0, 4172100.0), ( 613450.0, 4172000.0),
(X,Y) = ( 613450.0, 4171900.0), ( 613450.0, 4171800.0), ( 613450.0, 4171700.0), ( 613450.0, 4171600.0), ( 613450.0, 4171500.0),
(X,Y) = ( 613450.0, 4171400.0), ( 613450.0, 4171300.0), ( 613450.0, 4171200.0), ( 613450.0, 4171100.0), ( 613450.0, 4171000.0),
(X,Y) = ( 613000.0, 4172800.0), ( 613000.0, 4172600.0), ( 613000.0, 4172400.0), ( 613000.0, 4172200.0), ( 613000.0, 4172000.0),
(X,Y) = ( 613000.0, 4171800.0), ( 613000.0, 4171600.0), ( 613000.0, 4171400.0), ( 613000.0, 4171200.0), ( 613000.0, 4171000.0),
(X,Y) = ( 613000.0, 4170800.0), ( 613200.0, 4170800.0), ( 613400.0, 4170800.0), ( 613600.0, 4170800.0), ( 613800.0, 4170800.0),
(X,Y) = ( 614000.0, 4170800.0), ( 614200.0, 4170800.0), ( 614400.0, 4170800.0), ( 614600.0, 4170800.0), ( 614800.0, 4170800.0),
(X,Y) = ( 615100.0, 4170800.0), ( 615350.0, 4170800.0), ( 615600.0, 4170800.0), ( 615850.0, 4170800.0), ( 616100.0, 4170800.0),
(X,Y) = ( 613200.0, 4170400.0), ( 613400.0, 4170400.0), ( 613600.0, 4170400.0), ( 613800.0, 4170400.0), ( 614000.0, 4170400.0),
(X,Y) = ( 614200.0, 4170400.0), ( 614400.0, 4170400.0), ( 614600.0, 4170400.0), ( 614850.0, 4170400.0), ( 615100.0, 4170400.0),
(X,Y) = ( 615350.0, 4170400.0), ( 615600.0, 4170400.0), ( 615850.0, 4170400.0), ( 616100.0, 4170400.0), ( 616350.0, 4170400.0),
(X,Y) = ( 613000.0, 4167500.0), ( 615000.0, 4166500.0), ( 616000.0, 4169500.0), ( 616000.0, 4172500.0), ( 616000.0, 4175500.0),
(X,Y) = ( 616000.0, 4175500.0), ( 614000.0, 4177500.0), ( 606000.0, 4174500.0), ( 609000.0, 4174500.0), ( 612000.0, 4174500.0),
(X,Y) = ( 609000.0, 4173500.0), ( 610000.0, 4175500.0), ( 610000.0, 4173500.0), ( 608000.0, 4177500.0), ( 611000.0, 4177500.0),
(X,Y) = ( 606000.0, 4171500.0), ( 606000.0, 4172500.0), ( 607000.0, 4172500.0), ( 607000.0, 4171500.0), ( 608000.0, 4172500.0),
(X,Y) = ( 608000.0, 4171500.0), ( 609000.0, 4172500.0), ( 610000.0, 4172500.0), ( 610000.0, 4171500.0), ( 612000.0, 4171500.0),
(X,Y) = ( 611000.0, 4169500.0), ( 612000.0, 4170500.0), ( 611000.0, 4172500.0), ( 613000.0, 4172500.0), ( 612000.0, 4173500.0),
(X,Y) = ( 608000.0, 4169500.0), ( 609000.0, 4169500.0), ( 610000.0, 4169500.0), ( 608000.0, 4170500.0), ( 609000.0, 4170500.0),
(X,Y) = ( 606000.0, 4170500.0), ( 607000.0, 4170500.0), ( 606000.0, 4169500.0), ( 607000.0, 4169500.0), ( 606000.0, 4168500.0),
(X,Y) = ( 614600.0, 4170150.0), ( 614850.0, 4170150.0), ( 615100.0, 4170150.0), ( 615350.0, 4170150.0), ( 614850.0, 4169900.0),
(X,Y) = ( 615100.0, 4169900.0), ( 615350.0, 4169900.0), ( 615900.0, 4172900.0), ( 616400.0, 4172900.0), ( 616700.0, 4172900.0),
(X,Y) = ( 617000.0, 4172900.0), ( 614900.0, 4171050.0), ( 615000.0, 4171050.0), ( 615100.0, 4171050.0), ( 615200.0, 4171050.0),
(X,Y) = ( 615300.0, 4171050.0), ( 614900.0, 4171150.0), ( 615000.0, 4171150.0), ( 615100.0, 4171150.0), ( 615200.0, 4171150.0),
(X,Y) = ( 615300.0, 4171150.0), ( 614900.0, 4171250.0), ( 615000.0, 4171250.0), ( 615200.0, 4171250.0), ( 615300.0, 4171250.0),
(X,Y) = ( 614900.0, 4171350.0), ( 615000.0, 4171350.0), ( 615100.0, 4171350.0), ( 615200.0, 4171350.0), ( 615300.0, 4171350.0),
(X,Y) = ( 614900.0, 4171450.0), ( 615000.0, 4171450.0), ( 615100.0, 4171450.0), ( 615200.0, 4171450.0), ( 615300.0, 4171450.0),

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0 NUMBER OF SOURCES IN EACH CONCENTRATION REPORT GROUP 1 TO 2 = 1, 1,

SOURCE NUMBERS FOR EACH OF THE ABOVE GROUPS = 1, 2,

0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1988 MetDAT for 11/06/89

DATE

CASE 1, PAGE 3

TABLE 2

- GENERAL INPUT DATA -

X Y HEIGHT			X Y HEIGHT			X Y HEIGHT		
(METERS)	(METERS)		(METERS)	(METERS)		(METERS)	(METERS)	
614600.0	4171000.0	197.0000000	614850.0	4171000.0	200.0000000	615100.0	4171000.0	204.0000000
615350.0	4171000.0	216.0000000	615600.0	4171000.0	232.0000000	615850.0	4171000.0	238.0000000
616100.0	4171000.0	244.0000000	616350.0	4171000.0	250.0000000	616600.0	4171000.0	250.0000000

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00 614600.0	4171250.0	194.0000000	614850.0	4171250.0	196.0000000	615100.0	4171250.0	199.000000
00 615350.0	4171250.0	203.0000000	615600.0	4171250.0	213.0000000	615850.0	4171250.0	223.000000
00 616100.0	4171250.0	229.0000000	616350.0	4171250.0	229.0000000	616600.0	4171250.0	238.000000
00 614600.0	4171500.0	190.0000000	614850.0	4171500.0	192.0000000	615100.0	4171500.0	195.000000
00 615350.0	4171500.0	195.0000000	615600.0	4171500.0	200.0000000	615850.0	4171500.0	206.000000
00 616100.0	4171500.0	220.0000000	616350.0	4171500.0	230.0000000	616600.0	4171500.0	230.000000
00 614600.0	4171750.0	188.0000000	614850.0	4171750.0	187.0000000	615100.0	4171750.0	189.000000
00 615350.0	4171750.0	193.0000000	615600.0	4171750.0	197.0000000	615850.0	4171750.0	201.000000
00 616100.0	4171750.0	215.0000000	616350.0	4171750.0	212.0000000	616600.0	4171750.0	219.000000
00 614600.0	4172000.0	186.0000000	614850.0	4172000.0	187.0000000	615100.0	4172000.0	189.000000
00 615350.0	4172000.0	193.0000000	615600.0	4172000.0	197.0000000	615850.0	4172000.0	201.000000
00 616100.0	4172000.0	207.0000000	616350.0	4172000.0	210.0000000	616600.0	4172000.0	215.000000
00 614600.0	4172250.0	183.0000000	614850.0	4172250.0	187.0000000	615100.0	4172250.0	190.000000
00 615350.0	4172250.0	195.0000000	615600.0	4172250.0	200.0000000	615850.0	4172250.0	206.000000
00 616100.0	4172250.0	208.0000000	616350.0	4172250.0	213.0000000	616600.0	4172250.0	223.000000
00 614600.0	4172500.0	183.0000000	614850.0	4172500.0	186.0000000	615100.0	4172500.0	190.000000
00 615350.0	4172500.0	194.0000000	615600.0	4172500.0	200.0000000	615850.0	4172500.0	204.000000
00 616100.0	4172500.0	207.0000000	616350.0	4172500.0	213.0000000	616600.0	4172500.0	219.000000
00 616170.0	4172880.0	210.0000000	612700.0	4170900.0	179.0000000	612700.0	4170800.0	180.000000
00 612700.0	4170700.0	181.0000000	612700.0	4170600.0	182.0000000	612700.0	4170500.0	182.000000
00 612700.0	4170400.0	181.0000000	612700.0	4170300.0	181.0000000	612700.0	4170200.0	180.000000
00 612700.0	4170100.0	180.0000000	615900.0	4169300.0	226.0000000	613450.0	4172500.0	174.000000
00 613450.0	4172400.0	175.0000000	613450.0	4172300.0	175.0000000	613450.0	4172200.0	176.000000
00 613450.0	4172100.0	177.0000000	613450.0	4172000.0	178.0000000	613450.0	4171900.0	179.000000
00 613450.0	4171800.0	180.0000000	613450.0	4171700.0	181.0000000	613450.0	4171600.0	182.000000
00 613450.0	4171500.0	183.0000000	613450.0	4171400.0	183.0000000	613450.0	4171300.0	185.000000
00 613450.0	4171200.0	186.0000000	613450.0	4171100.0	187.0000000	613450.0	4171000.0	188.000000
00 613000.0	4172800.0	170.0000000	613000.0	4172600.0	171.0000000	613000.0	4172400.0	172.000000
00 613000.0	4172200.0	173.0000000	613000.0	4172000.0	176.0000000	613000.0	4171800.0	178.000000
00 613000.0	4171600.0	179.0000000	613000.0	4171400.0	180.0000000	613000.0	4171200.0	181.000000
00 613000.0	4171000.0	181.0000000	613000.0	4170800.0	184.0000000	613200.0	4170800.0	185.000000
00 613400.0	4170800.0	187.0000000	613600.0	4170800.0	190.0000000	613800.0	4170800.0	192.000000
00 614000.0	4170800.0	194.0000000	614200.0	4170800.0	196.0000000	614400.0	4170800.0	195.000000
00 614600.0	4170800.0	197.0000000	614850.0	4170800.0	204.0000000	615100.0	4170800.0	212.000000
00 615350.0	4170800.0	250.0000000	615600.0	4170800.0	250.0000000	615850.0	4170800.0	251.000000
00 613000.0	4170400.0	184.0000000	613200.0	4170400.0	187.0000000	613400.0	4170400.0	188.000000
00 613600.0	4170400.0	190.0000000	613800.0	4170400.0	193.0000000	614000.0	4170400.0	197.000000
00 614200.0	4170400.0	195.0000000	614400.0	4170400.0	201.0000000	614600.0	4170400.0	206.000000
00 614850.0	4170400.0	226.0000000	615100.0	4170400.0	239.0000000	615350.0	4170400.0	238.000000

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- GENERAL INPUT DATA -

0	X	Y	HEIGHT	X	Y	HEIGHT	X	Y	HEIGHT
	(METERS)	(METERS)		(METERS)	(METERS)		(METERS)	(METERS)	

0 LLNL HRA. SHORTZ Final Receptor Set. LLNL 1988 MetDAT for 11/06/89

DATE _____

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- SOURCE INPUT DATA -

C	T	SOURCE	X	Y	HEIGHT	IF TYPE=0	IF TYPE=0	ANGLE	STACK	ELEVATION	PAR	
CULATE DISTRIBUTION												
A	A	NUMBER	Y	STRENGTH	COORDINATE	COORDINATE	ABOVE	TEMP (DEG K)	VOL. EMISS.	TO	INNER	AT
TLING FREQUENCY												

R P	P (GRAMS/SEC)	(METERS)	(METERS)	GROUND	IF TYPE=10R2	RT. M**3/SEC	LONG	RADIUS	STACK	VEL
OCITY	OF									
D E	E			(METERS)	LENGTH SHORT	IF TYPE=10R2	SIDE	(METERS)	BASE	(METE
RS/SEC)	OCCURRENCE									
	(FRACTION)				SIDE (MTRS)	LENGTH LONG	(DEG)		(METERS)	

SIDE (MTRS)

```

X      1 0      1.000 614750.00 4171180.00      11.70 1255.000      1.240      0.0      0.230      195.00
X      2 0      1.000 614750.00 4171180.00      3.80 293.000      0.000      0.0      0.000      195.00
***-WARNING Z > HM, SOURCE      1, HOUR      8, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      2, HOUR      8, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      1, HOUR      9, X= 615000.0, Y= 4166500.0
***-WARNING Z > HM, SOURCE      2, HOUR      9, X= 615000.0, Y= 4166500.0
***-WARNING Z > HM, SOURCE      1, HOUR     11, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      2, HOUR     11, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      1, HOUR     13, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      2, HOUR     13, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      1, HOUR     15, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      2, HOUR     15, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      1, HOUR      1, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      2, HOUR      1, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      2, HOUR      9, X= 615850.0, Y= 4170800.0
***-WARNING Z > HM, SOURCE      2, HOUR      9, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      1, HOUR     13, X= 615600.0, Y= 4170400.0
***-WARNING Z > HM, SOURCE      1, HOUR     13, X= 615850.0, Y= 4170400.0
***-WARNING Z > HM, SOURCE      1, HOUR     13, X= 615000.0, Y= 4166500.0
***-WARNING Z > HM, SOURCE      1, HOUR     13, X= 615350.0, Y= 4170150.0
***-WARNING Z > HM, SOURCE      2, HOUR     13, X= 615600.0, Y= 4170400.0
***-WARNING Z > HM, SOURCE      2, HOUR     13, X= 615850.0, Y= 4170400.0
***-WARNING Z > HM, SOURCE      2, HOUR     13, X= 615000.0, Y= 4166500.0
***-WARNING Z > HM, SOURCE      2, HOUR     13, X= 615350.0, Y= 4170150.0
***-WARNING Z > HM, SOURCE      1, HOUR     15, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      2, HOUR     15, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      1, HOUR     11, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      2, HOUR     11, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      1, HOUR     13, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      2, HOUR     13, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      1, HOUR      1, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      2, HOUR      1, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      2, HOUR      9, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      1, HOUR     11, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      1, HOUR     11, X= 615000.0, Y= 4166500.0
***-WARNING Z > HM, SOURCE      2, HOUR     11, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      2, HOUR     13, X= 611000.0, Y= 4165500.0
***-WARNING Z > HM, SOURCE      2, HOUR     13, X= 615000.0, Y= 4166500.0
***-WARNING Z > HM, SOURCE      2, HOUR     13, X= 615350.0, Y= 4170150.0
***-WARNING Z > HM, SOURCE      1, HOUR      9, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      2, HOUR      9, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      1, HOUR     11, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      2, HOUR     11, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      1, HOUR     13, X= 615850.0, Y= 4170400.0
***-WARNING Z > HM, SOURCE      1, HOUR     13, X= 615000.0, Y= 4166500.0
***-WARNING Z > HM, SOURCE      2, HOUR     13, X= 615850.0, Y= 4170400.0
***-WARNING Z > HM, SOURCE      2, HOUR     13, X= 615000.0, Y= 4166500.0
***-WARNING Z > HM, SOURCE      1, HOUR     15, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      2, HOUR     15, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      1, HOUR      1, X= 616000.0, Y= 4175500.0
***-WARNING Z > HM, SOURCE      2, HOUR      1, X= 616000.0, Y= 4175500.0

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0** TOO MANY MESSAGES PROG STOPS PRINTING THEM

0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1988 MetDAT for 11/06/89 DATE

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TABLE 4

24 HOUR GROUND LEVEL CONCENTRATION (MICROGRAMS/CUBIC METER) FROM SOURCES 1

AVERAGED OVER 352 DAYS

- HOUR(S) 0 TO 2300 -

- DISCRETE POINT RECEPTORS -

(THE MAXIMUM CONCENTRATION IS, 4.7179689 AT X= 615000.0, Y=4171150.0)

0	X	Y	CONCENTRATION	X	Y	CONCENTRATION	X	Y	CONCENTRATION
ON	(METERS)	(METERS)		(METERS)	(METERS)		(METERS)	(METERS)	

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614600.0	4171000.0	1.1808109	614850.0	4171000.0	0.5290895	615100.0	4171000.0	0.5918
43								
615350.0	4171000.0	1.0862842	615600.0	4171000.0	1.0341392	615850.0	4171000.0	0.8143
08								
616100.0	4171000.0	0.6509073	616350.0	4171000.0	0.5100761	616600.0	4171000.0	0.3994
71								
614600.0	4171250.0	0.0563981	614850.0	4171250.0	1.1865165	615100.0	4171250.0	4.5058
36								
615350.0	4171250.0	3.2897177	615600.0	4171250.0	2.2555618	615850.0	4171250.0	1.4414
79								
616100.0	4171250.0	0.9560896	616350.0	4171250.0	0.6743309	616600.0	4171250.0	0.5007
62								
614600.0	4171500.0	0.0840901	614850.0	4171500.0	0.1996377	615100.0	4171500.0	2.8167
96								
615350.0	4171500.0	3.0660317	615600.0	4171500.0	2.2134440	615850.0	4171500.0	1.4643
50								
616100.0	4171500.0	1.0528679	616350.0	4171500.0	0.7850195	616600.0	4171500.0	0.6013
45								
614600.0	4171750.0	0.1250989	614850.0	4171750.0	0.1963474	615100.0	4171750.0	0.6922
43								
615350.0	4171750.0	1.7241496	615600.0	4171750.0	2.0728698	615850.0	4171750.0	1.6028
21								
616100.0	4171750.0	1.2714677	616350.0	4171750.0	0.8560840	616600.0	4171750.0	0.6306
28								
614600.0	4172000.0	0.1428390	614850.0	4172000.0	0.2573054	615100.0	4172000.0	0.3880
98								
615350.0	4172000.0	0.8594996	615600.0	4172000.0	1.2318219	615850.0	4172000.0	1.3667
25								
616100.0	4172000.0	1.0776173	616350.0	4172000.0	0.9003154	616600.0	4172000.0	0.7102
97								
614600.0	4172250.0	0.1525431	614850.0	4172250.0	0.2566305	615100.0	4172250.0	0.3029
07								
615350.0	4172250.0	0.4988236	615600.0	4172250.0	0.8034188	615850.0	4172250.0	0.9097
87								
616100.0	4172250.0	0.9231191	616350.0	4172250.0	0.8065668	616600.0	4172250.0	0.6439
79								
614600.0	4172500.0	0.1758914	614850.0	4172500.0	0.2263844	615100.0	4172500.0	0.2295
65								
615350.0	4172500.0	0.3218515	615600.0	4172500.0	0.4555765	615850.0	4172500.0	0.5992
45								
616100.0	4172500.0	0.6319079	616350.0	4172500.0	0.6523313	616600.0	4172500.0	0.6070
29								
616170.0	4172880.0	0.3973989	612700.0	4170900.0	0.1845049	612700.0	4170800.0	0.1594
58								
612700.0	4170700.0	0.1473230	612700.0	4170600.0	0.1542698	612700.0	4170500.0	0.1274
64								
612700.0	4170400.0	0.1301267	612700.0	4170300.0	0.1337109	612700.0	4170200.0	0.1213
86								
612700.0	4170100.0	0.1062286	615900.0	4169300.0	0.0865111	613450.0	4172500.0	0.1810
52								
613450.0	4172400.0	0.2023920	613450.0	4172300.0	0.1951955	613450.0	4172200.0	0.2810
84								
613450.0	4172100.0	0.3748149	613450.0	4172000.0	0.4657725	613450.0	4171900.0	0.4663
80								
613450.0	4171800.0	0.5185711	613450.0	4171700.0	0.5704582	613450.0	4171600.0	0.5707
55								
613450.0	4171500.0	0.5734606	613450.0	4171400.0	0.5313144	613450.0	4171300.0	0.4507
83								
613450.0	4171200.0	0.3971735	613450.0	4171100.0	0.3266357	613450.0	4171000.0	0.3082
20								
613000.0	4172800.0	0.1480186	613000.0	4172600.0	0.1815094	613000.0	4172400.0	0.2862
81								
613000.0	4172200.0	0.3564416	613000.0	4172000.0	0.4074137	613000.0	4171800.0	0.4662
41								
613000.0	4171600.0	0.4499739	613000.0	4171400.0	0.3610465	613000.0	4171200.0	0.2890
08								
613000.0	4171000.0	0.2269281	613000.0	4170800.0	0.1804462	613200.0	4170800.0	0.2060
27								
613400.0	4170800.0	0.2426588	613600.0	4170800.0	0.2517965	613800.0	4170800.0	0.3110
96								
614000.0	4170800.0	0.3445530	614200.0	4170800.0	0.5429285	614400.0	4170800.0	0.7440
99								
614600.0	4170800.0	1.1195266	614850.0	4170800.0	0.8073654	615100.0	4170800.0	0.4403
37								
615350.0	4170800.0	0.6312292	615600.0	4170800.0	0.4678682	615850.0	4170800.0	0.3452
84								
613000.0	4170400.0	0.1659416	613200.0	4170400.0	0.1664643	613400.0	4170400.0	0.2213

91
613600.0 4170400.0 0.2982183 613800.0 4170400.0 0.2769436 614000.0 4170400.0 0.43745
60
614200.0 4170400.0 0.5032239 614400.0 4170400.0 0.6488042 614600.0 4170400.0 0.50560
74
0 LLNL HRA, SHORTZ Final Receptor Set, LLNL 1988 MetDAT for 11/06/89 DATE
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TABLE 4 (CONT)

24 HOUR GROUND LEVEL CONCENTRATION (MICROGRAMS/CUBIC METER) FROM SOURCES 1
AVERAGED OVER 352 DAYS
- HOUR(S) 0 TO 2300 -

- DISCRETE POINT RECEPTORS -

(THE MAXIMUM CONCENTRATION IS, 4.7179689 AT X= 615000.0, Y=4171150.0)

ON	X (METERS)	Y (METERS)	CONCENTRATION	X (METERS)	Y (METERS)	CONCENTRATION	X (METERS)	Y (METERS)	CONCENTRATION

08	614850.0	4170400.0	0.5588155	615100.0	4170400.0	0.4253315	615350.0	4170400.0	0.35017
11	615600.0	4170400.0	0.1578587	615850.0	4170400.0	0.1717088	608000.0	4166500.0	0.02164
77	611000.0	4165500.0	0.0252851	613000.0	4167500.0	0.0686284	615000.0	4166500.0	0.02064
30	616000.0	4169500.0	0.0841602	616000.0	4172500.0	0.5809248	614000.0	4174500.0	0.05989
16	616000.0	4175500.0	0.0449099	614000.0	4177500.0	0.0253695	606000.0	4174500.0	0.04281
38	609000.0	4174500.0	0.0708742	612000.0	4174500.0	0.0586812	609000.0	4173500.0	0.07676
83	610000.0	4175500.0	0.0340581	610000.0	4173500.0	0.0997170	608000.0	4177500.0	0.02181
48	611000.0	4177500.0	0.0213608	606000.0	4171500.0	0.0313320	606000.0	4172500.0	0.03506
16	607000.0	4172500.0	0.0474393	607000.0	4171500.0	0.0388202	608000.0	4172500.0	0.06318
39	608000.0	4171500.0	0.0491792	609000.0	4172500.0	0.0858946	610000.0	4172500.0	0.12766
12	610000.0	4171500.0	0.0870447	612000.0	4171500.0	0.1985256	611000.0	4169500.0	0.05585
77	612000.0	4170500.0	0.1008305	611000.0	4172500.0	0.1660705	613000.0	4172500.0	0.24418
95	612000.0	4173500.0	0.0824625	608000.0	4169500.0	0.0242723	609000.0	4169500.0	0.03182
89	610000.0	4169500.0	0.0352199	608000.0	4170500.0	0.0307278	609000.0	4170500.0	0.04004
18	606000.0	4170500.0	0.0201504	607000.0	4170500.0	0.0248702	606000.0	4169500.0	0.01660
21	607000.0	4169500.0	0.0191344	606000.0	4168500.0	0.0145325	614600.0	4170150.0	0.33988
73	614850.0	4170150.0	0.3529814	615100.0	4170150.0	0.3198465	615350.0	4170150.0	0.25242
09	614850.0	4169900.0	0.2626811	615100.0	4169900.0	0.2113777	615350.0	4169900.0	0.18126
53	615900.0	4172900.0	0.2964231	616400.0	4172900.0	0.3868165	616700.0	4172900.0	0.40951
64	617000.0	4172900.0	0.3838249	614900.0	4171050.0	0.5024161	615000.0	4171050.0	0.70872
22	615100.0	4171050.0	1.0036528	615200.0	4171050.0	1.3211321	615300.0	4171050.0	1.42867
04	614900.0	4171150.0	3.1930647	615000.0	4171150.0	4.7179689	615100.0	4171150.0	4.13932
16	615200.0	4171150.0	3.6620383	615300.0	4171150.0	3.1750023	614900.0	4171250.0	3.10231
75	615000.0	4171250.0	4.6963906	615200.0	4171250.0	4.2099652	615300.0	4171250.0	3.55471
31	614900.0	4171350.0	1.3389066	615000.0	4171350.0	4.0326228	615100.0	4171350.0	4.49807
01	615200.0	4171350.0	4.0330820	615300.0	4171350.0	3.2643604	614900.0	4171450.0	0.57123
08	615000.0	4171450.0	1.7783328	615100.0	4171450.0	3.8879128	615200.0	4171450.0	3.94895
0	615300.0	4171450.0	3.2669041						

LLNL HRA, SHORTZ Final Receptor Set, LLNL 1988 MetDAT for 11/06/89

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TABLE 5

24 HOUR GROUND LEVEL CONCENTRATION (MICROGRAMS/CUBIC METER) FROM SOURCES 2
 AVERAGED OVER 352 DAYS
 - HOUR(S) 0 TO 2300 -

- DISCRETE POINT RECEPTORS -

(THE MAXIMUM CONCENTRATION IS, 279.3117676 AT X= 614850.0, Y=4171250.0)

0	X	Y	CONCENTRATION	X	Y	CONCENTRATION	X	Y	CONCENTRATION
ON	(METERS)	(METERS)		(METERS)	(METERS)		(METERS)	(METERS)	
94	614600.0	4171000.0	30.5526352	614850.0	4171000.0	21.9608326	615100.0	4171000.0	4.2839
41	615350.0	4171000.0	2.7863042	615600.0	4171000.0	2.2046821	615850.0	4171000.0	1.5450
18	616100.0	4171000.0	1.2199913	616350.0	4171000.0	0.9341778	616600.0	4171000.0	0.7079
32	614600.0	4171250.0	145.6967773	614850.0	4171250.0	279.3117676	615100.0	4171250.0	29.1073
51	615350.0	4171250.0	9.7050095	615600.0	4171250.0	4.4046116	615850.0	4171250.0	2.5513
51	616100.0	4171250.0	1.6557999	616350.0	4171250.0	1.1545235	616600.0	4171250.0	0.8441
07	614600.0	4171500.0	11.5538549	614850.0	4171500.0	15.0311279	615100.0	4171500.0	21.3267
69	615350.0	4171500.0	11.8537140	615600.0	4171500.0	5.8593073	615850.0	4171500.0	3.0196
31	616100.0	4171500.0	1.8952258	616350.0	4171500.0	1.3820511	616600.0	4171500.0	1.0508
17	614600.0	4171750.0	5.1226997	614850.0	4171750.0	4.9872308	615100.0	4171750.0	5.7045
98	615350.0	4171750.0	7.0152807	615600.0	4171750.0	5.2029610	615850.0	4171750.0	3.7066
54	616100.0	4171750.0	2.4573662	616350.0	4171750.0	1.6317896	616600.0	4171750.0	1.1300
51	614600.0	4172000.0	2.4134068	614850.0	4172000.0	2.7729383	615100.0	4172000.0	2.7128
79	615350.0	4172000.0	3.3334212	615600.0	4172000.0	3.5796542	615850.0	4172000.0	2.9284
48	616100.0	4172000.0	2.0123479	616350.0	4172000.0	1.7760333	616600.0	4172000.0	1.3318
29	614600.0	4172250.0	1.5516996	614850.0	4172250.0	1.8136179	615100.0	4172250.0	1.8114
43	615350.0	4172250.0	1.7748991	615600.0	4172250.0	2.2375264	615850.0	4172250.0	2.1011
15	616100.0	4172250.0	1.7998606	616350.0	4172250.0	1.4622231	616600.0	4172250.0	1.1299
16	614600.0	4172500.0	1.2372528	614850.0	4172500.0	1.2343136	615100.0	4172500.0	1.1089
67	615350.0	4172500.0	1.1396523	615600.0	4172500.0	1.1925340	615850.0	4172500.0	1.4360
27	616100.0	4172500.0	1.4012328	616350.0	4172500.0	1.2405345	616600.0	4172500.0	1.0853
48	616170.0	4172880.0	0.8719183	612700.0	4170900.0	0.7976306	612700.0	4170800.0	0.6221
96	612700.0	4170700.0	0.5744804	612700.0	4170600.0	0.6264073	612700.0	4170500.0	0.5112
13	612700.0	4170400.0	0.5690902	612700.0	4170300.0	0.5634726	612700.0	4170200.0	0.4881
84	612700.0	4170100.0	0.4110736	615900.0	4169300.0	0.2048794	613450.0	4172500.0	0.9798
21	613450.0	4172400.0	1.1294811	613450.0	4172300.0	1.1040473	613450.0	4172200.0	1.7116
80	613450.0	4172100.0	2.1290843	613450.0	4172000.0	2.8963206	613450.0	4171900.0	2.9159
54	613450.0	4171800.0	3.3098159	613450.0	4171700.0	3.7054403	613450.0	4171600.0	4.0657
46	613450.0	4171500.0	4.1767178	613450.0	4171400.0	3.9739463	613450.0	4171300.0	3.2572
95	613450.0	4171200.0	2.9045904	613450.0	4171100.0	2.1885459	613450.0	4171000.0	1.9191
61	613000.0	4172800.0	0.6430938	613000.0	4172600.0	0.8532178	613000.0	4172400.0	1.2595

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613000.0	4172200.0	1.7428541	613000.0	4172000.0	1.9636458	613000.0	4171800.0	2.29873
44	613000.0	4171600.0	2.3728108	613000.0	4171400.0	1.9485651	613000.0	4171200.0
67	613000.0	4171000.0	1.1688187	613000.0	4170800.0	0.7704967	613200.0	4170800.0
46	613400.0	4170800.0	1.3684918	613600.0	4170800.0	1.5498550	613800.0	4170800.0
02	614000.0	4170800.0	2.8793595	614200.0	4170800.0	6.0199838	614400.0	4170800.0
30	614600.0	4170800.0	11.0361357	614850.0	4170800.0	5.5322709	615100.0	4170800.0
50	615350.0	4170800.0	1.6445310	615600.0	4170800.0	1.0162104	615850.0	4170800.0
79	613000.0	4170400.0	0.7386932	613200.0	4170400.0	0.7103673	613400.0	4170400.0
20	613600.0	4170400.0	1.4737480	613800.0	4170400.0	1.2500149	614000.0	4170400.0
84	614200.0	4170400.0	2.1759458	614400.0	4170400.0	3.0261071	614600.0	4170400.0

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TABLE 5 (CONT)

24 HOUR GROUND LEVEL CONCENTRATION (MICROGRAMS/CUBIC METER) FROM SOURCES 2
AVERAGED OVER 352 DAYS
- HOUR(S) 0 TO 2300 -

- DISCRETE POINT RECEPTORS -

(THE MAXIMUM CONCENTRATION IS, 279.3117676 AT X= 614850.0, Y=4171250.0)

0	X	Y	CONCENTRATION	X	Y	CONCENTRATION	X	Y	CONCENTRATION
ON	(METERS)	(METERS)		(METERS)	(METERS)		(METERS)	(METERS)	
66	614850.0	4170400.0	1.3850504	615100.0	4170400.0	0.9855384	615350.0	4170400.0	0.96205
96	615600.0	4170400.0	0.3409868	615850.0	4170400.0	0.3910687	608000.0	4166500.0	0.06251
52	611000.0	4165500.0	0.0506424	613000.0	4167500.0	0.1788655	615000.0	4166500.0	0.03925
22	616000.0	4169500.0	0.2108039	616000.0	4172500.0	1.3285755	614000.0	4174500.0	0.23429
51	616000.0	4175500.0	0.1051514	614000.0	4177500.0	0.0643322	606000.0	4174500.0	0.12407
94	609000.0	4174500.0	0.2453876	612000.0	4174500.0	0.2667420	609000.0	4173500.0	0.22958
24	610000.0	4175500.0	0.1054264	610000.0	4173500.0	0.3203472	608000.0	4177500.0	0.07261
14	611000.0	4177500.0	0.0620776	606000.0	4171500.0	0.1062764	606000.0	4172500.0	0.10846
24	607000.0	4172500.0	0.1439674	607000.0	4171500.0	0.1340086	608000.0	4172500.0	0.19039
82	608000.0	4171500.0	0.1730460	609000.0	4172500.0	0.2665713	610000.0	4172500.0	0.46827
94	610000.0	4171500.0	0.3153271	612000.0	4171500.0	0.7910954	611000.0	4169500.0	0.19932
40	612000.0	4170500.0	0.3427468	611000.0	4172500.0	0.5475966	613000.0	4172500.0	1.10961
58	612000.0	4173500.0	0.3094154	608000.0	4169500.0	0.0662867	609000.0	4169500.0	0.09169
47	610000.0	4169500.0	0.1118867	608000.0	4170500.0	0.1001560	609000.0	4170500.0	0.12941
85	606000.0	4170500.0	0.0644727	607000.0	4170500.0	0.0807609	606000.0	4169500.0	0.04194
48	607000.0	4169500.0	0.0486436	606000.0	4168500.0	0.0388912	614600.0	4170150.0	0.89608
09	614850.0	4170150.0	0.9138557	615100.0	4170150.0	0.7351722	615350.0	4170150.0	0.58498
04	614850.0	4169900.0	0.6557683	615100.0	4169900.0	0.4703330	615350.0	4169900.0	0.40501
67	615900.0	4172900.0	0.6598696	616400.0	4172900.0	0.7968612	616700.0	4172900.0	0.77159
10	617000.0	4172900.0	0.6757078	614900.0	4171050.0	12.7431421	615000.0	4171050.0	8.33714
	615100.0	4171050.0	6.4883556	615200.0	4171050.0	5.2491441	615300.0	4171050.0	4.89354

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37	614900.0	4171150.0	75.4282379	615000.0	4171150.0	36.4651070	615100.0	4171150.0	19.206
84	615200.0	4171150.0	11.5821810	615300.0	4171150.0	7.8029566	614900.0	4171250.0	187.017
98	615000.0	4171250.0	56.5397453	615200.0	4171250.0	18.0357666	615300.0	4171250.0	11.825
72	614900.0	4171350.0	65.5486755	615000.0	4171350.0	55.9650993	615100.0	4171350.0	36.276
27	615200.0	4171350.0	20.6403790	615300.0	4171350.0	12.6407309	614900.0	4171450.0	23.369
70	615000.0	4171450.0	27.5750351	615100.0	4171450.0	26.7263756	615200.0	4171450.0	17.979
32	615300.0	4171450.0	14.6556473						

POSTPROCESSOR RESULTS
AVERAGE OF ALL THREE YEARS

1986-87-88 LLNL FINAL RRAM preprocessor 11/06/89 for

ANNUAL AVERAGE CONCENTRATIONS

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1      0.161E+01 0.322E-01 0.322E-01
2      0.663E+00 0.133E-01 0.133E-01
3      0.775E+00 0.155E-01 0.155E-01
4      0.109E+01 0.218E-01 0.218E-01
5      0.996E+00 0.199E-01 0.199E-01
6      0.740E+00 0.148E-01 0.148E-01
7      0.550E+00 0.110E-01 0.110E-01
8      0.428E+00 0.856E-02 0.856E-02
9      0.342E+00 0.685E-02 0.685E-02
10     0.840E-01 0.168E-02 0.168E-02
11     0.399E+01 0.798E-01 0.798E-01
12     0.397E+01 0.794E-01 0.794E-01
13     0.241E+01 0.483E-01 0.483E-01
14     0.183E+01 0.366E-01 0.366E-01
15     0.118E+01 0.237E-01 0.237E-01
16     0.781E+00 0.156E-01 0.156E-01
17     0.548E+00 0.110E-01 0.110E-01
18     0.406E+00 0.812E-02 0.812E-02
19     0.573E-01 0.115E-02 0.115E-02
20     0.145E+00 0.290E-02 0.290E-02
21     0.235E+01 0.470E-01 0.470E-01
22     0.202E+01 0.404E-01 0.404E-01
23     0.163E+01 0.325E-01 0.325E-01
24     0.140E+01 0.280E-01 0.280E-01
25     0.872E+00 0.174E-01 0.174E-01
26     0.645E+00 0.129E-01 0.129E-01
27     0.482E+00 0.964E-02 0.964E-02
28     0.514E-01 0.103E-02 0.103E-02
29     0.903E-01 0.181E-02 0.181E-02
30     0.352E+00 0.703E-02 0.703E-02
31     0.145E+01 0.289E-01 0.289E-01
32     0.167E+01 0.334E-01 0.334E-01
33     0.150E+01 0.301E-01 0.301E-01
34     0.103E+01 0.205E-01 0.205E-01
35     0.708E+00 0.142E-01 0.142E-01
36     0.520E+00 0.104E-01 0.104E-01
37     0.556E-01 0.111E-02 0.111E-02
38     0.943E-01 0.189E-02 0.189E-02
39     0.164E+00 0.329E-02 0.329E-02
40     0.615E+00 0.123E-01 0.123E-01
41     0.130E+01 0.261E-01 0.261E-01
42     0.158E+01 0.316E-01 0.316E-01
43     0.103E+01 0.207E-01 0.207E-01
44     0.783E+00 0.157E-01 0.157E-01
45     0.579E+00 0.116E-01 0.116E-01
46     0.562E-01 0.112E-02 0.112E-02
47     0.986E-01 0.197E-02 0.197E-02
48     0.147E+00 0.293E-02 0.293E-02
49     0.385E+00 0.770E-02 0.770E-02
50     0.909E+00 0.182E-01 0.182E-01
51     0.145E+01 0.291E-01 0.291E-01
52     0.947E+00 0.189E-01 0.189E-01
53     0.785E+00 0.157E-01 0.157E-01
54     0.607E+00 0.121E-01 0.121E-01
55     0.631E-01 0.126E-02 0.126E-02
56     0.924E-01 0.185E-02 0.185E-02
57     0.137E+00 0.273E-02 0.273E-02
58     0.255E+00 0.511E-02 0.511E-02
59     0.559E+00 0.112E-01 0.112E-01
60     0.964E+00 0.193E-01 0.193E-01
61     0.730E+00 0.146E-01 0.146E-01
62     0.671E+00 0.134E-01 0.134E-01
63     0.596E+00 0.119E-01 0.119E-01
64     0.438E+00 0.876E-02 0.876E-02
65     0.103E+00 0.206E-02 0.206E-02
66     0.108E+00 0.215E-02 0.215E-02
67     0.119E+00 0.238E-02 0.238E-02
68     0.127E+00 0.255E-02 0.255E-02
69     0.130E+00 0.259E-02 0.259E-02
70     0.127E+00 0.254E-02 0.254E-02
71     0.122E+00 0.244E-02 0.244E-02
72     0.113E+00 0.226E-02 0.226E-02
73     0.106E+00 0.212E-02 0.212E-02
74     0.824E-01 0.165E-02 0.165E-02
75     0.629E-01 0.126E-02 0.126E-02
76     0.685E-01 0.137E-02 0.137E-02
77     0.754E-01 0.151E-02 0.151E-02
78     0.910E-01 0.182E-02 0.182E-02
79     0.111E+00 0.222E-02 0.222E-02
80     0.127E+00 0.255E-02 0.255E-02
81     0.140E+00 0.280E-02 0.280E-02
82     0.154E+00 0.308E-02 0.308E-02
83     0.161E+00 0.322E-02 0.322E-02
84     0.154E+00 0.308E-02 0.308E-02
85     0.156E+00 0.312E-02 0.312E-02

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x= 614600.00 y= 4171000.00 Model = ISCST
x= 614850.00 y= 4171000.00 Model = ISCST
x= 615100.00 y= 4171000.00 Model = ISCST
x= 615350.00 y= 4171000.00 Model = Cx1/SHORTZ
x= 615600.00 y= 4171000.00 Model = Cx1/SHORTZ
x= 615850.00 y= 4171000.00 Model = Cx1/SHORTZ
x= 616100.00 y= 4171000.00 Model = Cx1/SHORTZ
x= 616350.00 y= 4171000.00 Model = Cx1/SHORTZ
x= 616600.00 y= 4171000.00 Model = Cx1/SHORTZ
x= 614600.00 y= 4171250.00 Model = ISCST
x= 614850.00 y= 4171250.00 Model = ISCST
x= 615100.00 y= 4171250.00 Model = ISCST
x= 615350.00 y= 4171250.00 Model = ISCST
x= 615600.00 y= 4171250.00 Model = Cx1/SHORTZ
x= 615850.00 y= 4171250.00 Model = Cx1/SHORTZ
x= 616100.00 y= 4171250.00 Model = Cx1/SHORTZ
x= 616350.00 y= 4171250.00 Model = Cx1/SHORTZ
x= 616600.00 y= 4171250.00 Model = Cx1/SHORTZ
x= 614600.00 y= 4171500.00 Model = ISCST
x= 614850.00 y= 4171500.00 Model = ISCST
x= 615100.00 y= 4171500.00 Model = ISCST
x= 615350.00 y= 4171500.00 Model = ISCST
x= 615600.00 y= 4171500.00 Model = ISCST
x= 615850.00 y= 4171500.00 Model = ISCST
x= 616100.00 y= 4171500.00 Model = Cx1/SHORTZ
x= 616350.00 y= 4171500.00 Model = Cx1/SHORTZ
x= 616600.00 y= 4171500.00 Model = Cx1/SHORTZ
x= 614600.00 y= 4171750.00 Model = ISCST
x= 614850.00 y= 4171750.00 Model = ISCST
x= 615100.00 y= 4171750.00 Model = ISCST
x= 615350.00 y= 4171750.00 Model = ISCST
x= 615600.00 y= 4171750.00 Model = ISCST
x= 615850.00 y= 4171750.00 Model = ISCST
x= 616100.00 y= 4171750.00 Model = Cx1/SHORTZ
x= 616350.00 y= 4171750.00 Model = Cx1/SHORTZ
x= 616600.00 y= 4171750.00 Model = Cx1/SHORTZ
x= 614600.00 y= 4172000.00 Model = ISCST
x= 614850.00 y= 4172000.00 Model = ISCST
x= 615100.00 y= 4172000.00 Model = ISCST
x= 615350.00 y= 4172000.00 Model = ISCST
x= 615600.00 y= 4172000.00 Model = ISCST
x= 615850.00 y= 4172000.00 Model = ISCST
x= 616100.00 y= 4172000.00 Model = Cx1/SHORTZ
x= 616350.00 y= 4172000.00 Model = Cx1/SHORTZ
x= 616600.00 y= 4172000.00 Model = Cx1/SHORTZ
x= 614600.00 y= 4172250.00 Model = ISCST
x= 614850.00 y= 4172250.00 Model = ISCST
x= 615100.00 y= 4172250.00 Model = ISCST
x= 615350.00 y= 4172250.00 Model = ISCST
x= 615600.00 y= 4172250.00 Model = ISCST
x= 615850.00 y= 4172250.00 Model = ISCST
x= 616100.00 y= 4172250.00 Model = Cx1/SHORTZ
x= 616350.00 y= 4172250.00 Model = Cx1/SHORTZ
x= 616600.00 y= 4172250.00 Model = Cx1/SHORTZ
x= 616170.00 y= 4172880.00 Model = Cx1/SHORTZ
x= 612700.00 y= 4170900.00 Model = ISCST
x= 612700.00 y= 4170800.00 Model = ISCST
x= 612700.00 y= 4170700.00 Model = ISCST
x= 612700.00 y= 4170600.00 Model = ISCST
x= 612700.00 y= 4170500.00 Model = ISCST
x= 612700.00 y= 4170400.00 Model = ISCST
x= 612700.00 y= 4170300.00 Model = ISCST
x= 612700.00 y= 4170200.00 Model = ISCST
x= 612700.00 y= 4170100.00 Model = ISCST
x= 615900.00 y= 4169300.00 Model = Cx1/SHORTZ
x= 613450.00 y= 4172500.00 Model = ISCST
x= 613450.00 y= 4172400.00 Model = ISCST
x= 613450.00 y= 4172300.00 Model = ISCST
x= 613450.00 y= 4172200.00 Model = ISCST
x= 613450.00 y= 4172100.00 Model = ISCST
x= 613450.00 y= 4172000.00 Model = ISCST
x= 613450.00 y= 4171900.00 Model = ISCST
x= 613450.00 y= 4171800.00 Model = ISCST
x= 613450.00 y= 4171700.00 Model = ISCST
x= 613450.00 y= 4171600.00 Model = ISCST
x= 613450.00 y= 4171500.00 Model = ISCST

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86	0.146E+00	0.291E-02	0.291E-02	x=	613450.00	y=	4171400.00	Model =	ISCST
87	0.148E+00	0.295E-02	0.295E-02	x=	613450.00	y=	4171300.00	Model =	ISCST
88	0.151E+00	0.302E-02	0.302E-02	x=	613450.00	y=	4171200.00	Model =	ISCST
89	0.160E+00	0.320E-02	0.320E-02	x=	613450.00	y=	4171100.00	Model =	ISCST
90	0.159E+00	0.319E-02	0.319E-02	x=	613450.00	y=	4171000.00	Model =	ISCST
91	0.649E-01	0.130E-02	0.130E-02	x=	613000.00	y=	4172800.00	Model =	ISCST
92	0.777E-01	0.155E-02	0.155E-02	x=	613000.00	y=	4172600.00	Model =	ISCST
93	0.110E+00	0.219E-02	0.219E-02	x=	613000.00	y=	4172400.00	Model =	ISCST
94	0.130E+00	0.260E-02	0.260E-02	x=	613000.00	y=	4172200.00	Model =	ISCST
95	0.157E+00	0.314E-02	0.314E-02	x=	613000.00	y=	4172000.00	Model =	ISCST
96	0.163E+00	0.327E-02	0.327E-02	x=	613000.00	y=	4171800.00	Model =	ISCST
97	0.163E+00	0.327E-02	0.327E-02	x=	613000.00	y=	4171600.00	Model =	ISCST
98	0.134E+00	0.267E-02	0.267E-02	x=	613000.00	y=	4171400.00	Model =	ISCST
99	0.126E+00	0.252E-02	0.252E-02	x=	613000.00	y=	4171200.00	Model =	ISCST
100	0.117E+00	0.233E-02	0.233E-02	x=	613000.00	y=	4171000.00	Model =	ISCST
101	0.138E+00	0.277E-02	0.277E-02	x=	613000.00	y=	4170800.00	Model =	ISCST
102	0.154E+00	0.309E-02	0.309E-02	x=	613200.00	y=	4170800.00	Model =	ISCST
103	0.184E+00	0.367E-02	0.367E-02	x=	613400.00	y=	4170800.00	Model =	ISCST
104	0.222E+00	0.445E-02	0.445E-02	x=	613600.00	y=	4170800.00	Model =	ISCST
105	0.276E+00	0.551E-02	0.551E-02	x=	613800.00	y=	4170800.00	Model =	ISCST
106	0.331E+00	0.662E-02	0.662E-02	x=	614000.00	y=	4170800.00	Model =	ISCST
107	0.490E+00	0.979E-02	0.979E-02	x=	614200.00	y=	4170800.00	Model =	ISCST
108	0.806E+00	0.161E-01	0.161E-01	x=	614400.00	y=	4170800.00	Model =	ISCST
109	0.914E+00	0.183E-01	0.183E-01	x=	614600.00	y=	4170800.00	Model =	ISCST
110	0.733E+00	0.147E-01	0.147E-01	x=	614850.00	y=	4170800.00	Model =	ISCST
111	0.466E+00	0.931E-02	0.931E-02	x=	615100.00	y=	4170800.00	Model =	Cx1/SHORTZ
112	0.530E+00	0.106E-01	0.106E-01	x=	615350.00	y=	4170800.00	Model =	Cx1/SHORTZ
113	0.430E+00	0.859E-02	0.859E-02	x=	615600.00	y=	4170800.00	Model =	Cx1/SHORTZ
114	0.345E+00	0.690E-02	0.690E-02	x=	615850.00	y=	4170800.00	Model =	Cx1/SHORTZ
115	0.148E+00	0.295E-02	0.295E-02	x=	613000.00	y=	4170400.00	Model =	ISCST
116	0.158E+00	0.317E-02	0.317E-02	x=	613200.00	y=	4170400.00	Model =	ISCST
117	0.179E+00	0.357E-02	0.357E-02	x=	613400.00	y=	4170400.00	Model =	ISCST
118	0.211E+00	0.421E-02	0.421E-02	x=	613600.00	y=	4170400.00	Model =	ISCST
119	0.285E+00	0.569E-02	0.569E-02	x=	613800.00	y=	4170400.00	Model =	ISCST
120	0.390E+00	0.781E-02	0.781E-02	x=	614000.00	y=	4170400.00	Model =	ISCST
121	0.430E+00	0.859E-02	0.859E-02	x=	614200.00	y=	4170400.00	Model =	ISCST
122	0.461E+00	0.922E-02	0.922E-02	x=	614400.00	y=	4170400.00	Model =	ISCST
123	0.515E+00	0.103E-01	0.103E-01	x=	614600.00	y=	4170400.00	Model =	ISCST
124	0.667E+00	0.133E-01	0.133E-01	x=	614850.00	y=	4170400.00	Model =	Cx1/SHORTZ
125	0.467E+00	0.934E-02	0.934E-02	x=	615100.00	y=	4170400.00	Model =	Cx1/SHORTZ
126	0.312E+00	0.623E-02	0.623E-02	x=	615350.00	y=	4170400.00	Model =	Cx1/SHORTZ
127	0.204E+00	0.407E-02	0.407E-02	x=	615600.00	y=	4170400.00	Model =	Cx1/SHORTZ
128	0.140E+00	0.281E-02	0.281E-02	x=	615850.00	y=	4170400.00	Model =	Cx1/SHORTZ
129	0.196E-01	0.392E-03	0.392E-03	x=	608000.00	y=	4166500.00	Model =	ISCST
130	0.229E-01	0.457E-03	0.457E-03	x=	611000.00	y=	4165500.00	Model =	Cx1/SHORTZ
131	0.546E-01	0.109E-02	0.109E-02	x=	613000.00	y=	4167500.00	Model =	Cx1/SHORTZ
132	0.226E-01	0.451E-03	0.451E-03	x=	615000.00	y=	4166500.00	Model =	Cx1/SHORTZ
133	0.824E-01	0.165E-02	0.165E-02	x=	616000.00	y=	4169500.00	Model =	Cx1/SHORTZ
134	0.104E+01	0.208E-01	0.208E-01	x=	616000.00	y=	4172500.00	Model =	ISCST
135	0.377E-01	0.754E-03	0.754E-03	x=	614000.00	y=	4174500.00	Model =	ISCST
136	0.448E-01	0.895E-03	0.895E-03	x=	616000.00	y=	4175500.00	Model =	Cx1/SHORTZ
137	0.240E-01	0.481E-03	0.481E-03	x=	614000.00	y=	4177500.00	Model =	Cx1/SHORTZ
138	0.719E-01	0.144E-02	0.144E-02	x=	606000.00	y=	4174500.00	Model =	ISCST
139	0.179E+00	0.359E-02	0.359E-02	x=	609000.00	y=	4174500.00	Model =	ISCST
140	0.409E-01	0.817E-03	0.817E-03	x=	612000.00	y=	4174500.00	Model =	ISCST
141	0.550E-01	0.110E-02	0.110E-02	x=	609000.00	y=	4173500.00	Model =	ISCST
142	0.397E-01	0.793E-03	0.793E-03	x=	610000.00	y=	4175500.00	Model =	ISCST
143	0.152E+00	0.304E-02	0.304E-02	x=	610000.00	y=	4173500.00	Model =	ISCST
144	0.611E-01	0.122E-02	0.122E-02	x=	608000.00	y=	4177500.00	Model =	ISCST
145	0.374E-01	0.748E-03	0.748E-03	x=	611000.00	y=	4177500.00	Model =	ISCST
146	0.221E-01	0.443E-03	0.443E-03	x=	606000.00	y=	4171500.00	Model =	ISCST
147	0.208E-01	0.415E-03	0.415E-03	x=	606000.00	y=	4172500.00	Model =	ISCST
148	0.297E-01	0.594E-03	0.594E-03	x=	607000.00	y=	4172500.00	Model =	ISCST
149	0.266E-01	0.532E-03	0.532E-03	x=	607000.00	y=	4171500.00	Model =	ISCST
150	0.425E-01	0.850E-03	0.850E-03	x=	608000.00	y=	4172500.00	Model =	ISCST
151	0.325E-01	0.650E-03	0.650E-03	x=	608000.00	y=	4171500.00	Model =	ISCST
152	0.110E+00	0.220E-02	0.220E-02	x=	609000.00	y=	4172500.00	Model =	ISCST
153	0.197E+00	0.394E-02	0.394E-02	x=	610000.00	y=	4172500.00	Model =	ISCST
154	0.556E-01	0.111E-02	0.111E-02	x=	610000.00	y=	4171500.00	Model =	ISCST
155	0.944E-01	0.189E-02	0.189E-02	x=	612000.00	y=	4171500.00	Model =	ISCST
156	0.780E-01	0.156E-02	0.156E-02	x=	611000.00	y=	4169500.00	Model =	ISCST
157	0.947E-01	0.189E-02	0.189E-02	x=	612000.00	y=	4170500.00	Model =	ISCST
158	0.101E+00	0.203E-02	0.203E-02	x=	611000.00	y=	4172500.00	Model =	ISCST
159	0.958E-01	0.192E-02	0.192E-02	x=	613000.00	y=	4172500.00	Model =	ISCST
160	0.581E-01	0.116E-02	0.116E-02	x=	612000.00	y=	4173500.00	Model =	ISCST
161	0.310E-01	0.621E-03	0.621E-03	x=	608000.00	y=	4169500.00	Model =	ISCST
162	0.397E-01	0.794E-03	0.794E-03	x=	609000.00	y=	4169500.00	Model =	ISCST
163	0.539E-01	0.108E-02	0.108E-02	x=	610000.00	y=	4169500.00	Model =	ISCST
164	0.286E-01	0.571E-03	0.571E-03	x=	608000.00	y=	4170500.00	Model =	ISCST
165	0.377E-01	0.755E-03	0.755E-03	x=	609000.00	y=	4170500.00	Model =	ISCST
166	0.187E-01	0.374E-03	0.374E-03	x=	606000.00	y=	4170500.00	Model =	ISCST
167	0.239E-01	0.478E-03	0.478E-03	x=	607000.00	y=	4170500.00	Model =	ISCST
168	0.162E-01	0.324E-03	0.324E-03	x=	606000.00	y=	4169500.00	Model =	ISCST
169	0.214E-01	0.428E-03	0.428E-03	x=	607000.00	y=	4169500.00	Model =	ISCST
170	0.187E-01	0.375E-03	0.375E-03	x=	606000.00	y=	4168500.00	Model =	ISCST
171	0.377E+00	0.755E-02	0.755E-02	x=	614600.00	y=	4170150.00	Model =	Cx1/SHORTZ
172	0.377E+00	0.753E-02	0.753E-02	x=	614850.00	y=	4170150.00	Model =	Cx1/SHORTZ
173	0.345E+00	0.689E-02	0.689E-02	x=	615100.00	y=	4170150.00	Model =	Cx1/SHORTZ

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174 0.248E+00 0.495E-02 0.495E-02 x= 615350.00 y= 4170150.00 Model = Cx1/SHORTZ
175 0.259E+00 0.517E-02 0.517E-02 x= 614850.00 y= 4169900.00 Model = Cx1/SHORTZ
176 0.199E+00 0.399E-02 0.399E-02 x= 615100.00 y= 4169900.00 Model = Cx1/SHORTZ
177 0.185E+00 0.369E-02 0.369E-02 x= 615350.00 y= 4169900.00 Model = Cx1/SHORTZ
178 0.583E+00 0.117E-01 0.117E-01 x= 615900.00 y= 4172900.00 Model = ISCST
179 0.441E+00 0.883E-02 0.883E-02 x= 616400.00 y= 4172900.00 Model = Cx1/SHORTZ
180 0.439E+00 0.877E-02 0.877E-02 x= 616700.00 y= 4172900.00 Model = Cx1/SHORTZ
181 0.387E+00 0.773E-02 0.773E-02 x= 617000.00 y= 4172900.00 Model = Cx1/SHORTZ
182 0.728E+00 0.146E-01 0.146E-01 x= 614900.00 y= 4171050.00 Model = ISCST
183 0.102E+01 0.203E-01 0.203E-01 x= 615000.00 y= 4171050.00 Model = ISCST
184 0.125E+01 0.250E-01 0.250E-01 x= 615100.00 y= 4171050.00 Model = ISCST
185 0.146E+01 0.292E-01 0.292E-01 x= 615200.00 y= 4171050.00 Model = ISCST
186 0.146E+01 0.293E-01 0.293E-01 x= 615300.00 y= 4171050.00 Model = Cx1/SHORTZ
187 0.502E+01 0.100E+00 0.100E+00 x= 614900.00 y= 4171150.00 Model = ISCST
188 0.500E+01 0.100E+00 0.100E+00 x= 615000.00 y= 4171150.00 Model = ISCST
189 0.377E+01 0.753E-01 0.753E-01 x= 615100.00 y= 4171150.00 Model = ISCST
190 0.305E+01 0.609E-01 0.609E-01 x= 615200.00 y= 4171150.00 Model = ISCST
191 0.263E+01 0.526E-01 0.526E-01 x= 615300.00 y= 4171150.00 Model = ISCST
192 0.498E+01 0.996E-01 0.996E-01 x= 614900.00 y= 4171250.00 Model = ISCST
193 0.496E+01 0.991E-01 0.991E-01 x= 615000.00 y= 4171250.00 Model = ISCST
194 0.326E+01 0.652E-01 0.652E-01 x= 615200.00 y= 4171250.00 Model = ISCST
195 0.264E+01 0.527E-01 0.527E-01 x= 615300.00 y= 4171250.00 Model = ISCST
196 0.217E+01 0.433E-01 0.433E-01 x= 614900.00 y= 4171350.00 Model = ISCST
197 0.390E+01 0.780E-01 0.780E-01 x= 615000.00 y= 4171350.00 Model = ISCST
198 0.348E+01 0.696E-01 0.696E-01 x= 615100.00 y= 4171350.00 Model = ISCST
199 0.282E+01 0.565E-01 0.565E-01 x= 615200.00 y= 4171350.00 Model = ISCST
200 0.223E+01 0.446E-01 0.446E-01 x= 615300.00 y= 4171350.00 Model = ISCST
201 0.453E+00 0.905E-02 0.905E-02 x= 614900.00 y= 4171450.00 Model = ISCST
202 0.193E+01 0.386E-01 0.386E-01 x= 615000.00 y= 4171450.00 Model = ISCST
203 0.292E+01 0.584E-01 0.584E-01 x= 615100.00 y= 4171450.00 Model = ISCST
204 0.263E+01 0.527E-01 0.527E-01 x= 615200.00 y= 4171450.00 Model = ISCST
205 0.216E+01 0.433E-01 0.433E-01 x= 615300.00 y= 4171450.00 Model = ISCST

1 0.162E+02 0.324E+00 0.324E+00 x= 614600.00 y= 4171000.00 Model = ISCST
2 0.218E+02 0.436E+00 0.436E+00 x= 614850.00 y= 4171000.00 Model = Cx1/SHORTZ
3 0.450E+01 0.900E-01 0.900E-01 x= 615100.00 y= 4171000.00 Model = Cx1/SHORTZ
4 0.273E+01 0.546E-01 0.546E-01 x= 615350.00 y= 4171000.00 Model = Cx1/SHORTZ
5 0.195E+01 0.390E-01 0.390E-01 x= 615600.00 y= 4171000.00 Model = Cx1/SHORTZ
6 0.135E+01 0.271E-01 0.271E-01 x= 615850.00 y= 4171000.00 Model = Cx1/SHORTZ
7 0.987E+00 0.197E-01 0.197E-01 x= 616100.00 y= 4171000.00 Model = Cx1/SHORTZ
8 0.764E+00 0.153E-01 0.153E-01 x= 616350.00 y= 4171000.00 Model = Cx1/SHORTZ
9 0.608E+00 0.122E-01 0.122E-01 x= 616600.00 y= 4171000.00 Model = Cx1/SHORTZ
10 0.882E+02 0.176E+01 0.176E+01 x= 614600.00 y= 4171250.00 Model = ISCST
11 0.133E+03 0.266E+01 0.266E+01 x= 614850.00 y= 4171250.00 Model = ISCST
12 0.243E+02 0.485E+00 0.485E+00 x= 615100.00 y= 4171250.00 Model = Cx1/SHORTZ
13 0.758E+01 0.152E+00 0.152E+00 x= 615350.00 y= 4171250.00 Model = Cx1/SHORTZ
14 0.366E+01 0.731E-01 0.731E-01 x= 615600.00 y= 4171250.00 Model = Cx1/SHORTZ
15 0.209E+01 0.417E-01 0.417E-01 x= 615850.00 y= 4171250.00 Model = Cx1/SHORTZ
16 0.133E+01 0.267E-01 0.267E-01 x= 616100.00 y= 4171250.00 Model = Cx1/SHORTZ
17 0.922E+00 0.184E-01 0.184E-01 x= 616350.00 y= 4171250.00 Model = Cx1/SHORTZ
18 0.672E+00 0.134E-01 0.134E-01 x= 616600.00 y= 4171250.00 Model = Cx1/SHORTZ
19 0.857E+01 0.171E+00 0.171E+00 x= 614600.00 y= 4171500.00 Model = ISCST
20 0.908E+01 0.182E+00 0.182E+00 x= 614850.00 y= 4171500.00 Model = ISCST
21 0.181E+02 0.361E+00 0.361E+00 x= 615100.00 y= 4171500.00 Model = ISCST
22 0.994E+01 0.199E+00 0.199E+00 x= 615350.00 y= 4171500.00 Model = ISCST
23 0.508E+01 0.102E+00 0.102E+00 x= 615600.00 y= 4171500.00 Model = Cx1/SHORTZ
24 0.258E+01 0.517E-01 0.517E-01 x= 615850.00 y= 4171500.00 Model = Cx1/SHORTZ
25 0.161E+01 0.321E-01 0.321E-01 x= 616100.00 y= 4171500.00 Model = Cx1/SHORTZ
26 0.115E+01 0.230E-01 0.230E-01 x= 616350.00 y= 4171500.00 Model = Cx1/SHORTZ
27 0.853E+00 0.171E-01 0.171E-01 x= 616600.00 y= 4171500.00 Model = Cx1/SHORTZ
28 0.337E+01 0.674E-01 0.674E-01 x= 614600.00 y= 4171750.00 Model = ISCST
29 0.383E+01 0.766E-01 0.766E-01 x= 614850.00 y= 4171750.00 Model = ISCST
30 0.514E+01 0.103E+00 0.103E+00 x= 615100.00 y= 4171750.00 Model = ISCST
31 0.732E+01 0.146E+00 0.146E+00 x= 615350.00 y= 4171750.00 Model = ISCST
32 0.600E+01 0.120E+00 0.120E+00 x= 615600.00 y= 4171750.00 Model = ISCST
33 0.322E+01 0.644E-01 0.644E-01 x= 615850.00 y= 4171750.00 Model = Cx1/SHORTZ
34 0.200E+01 0.400E-01 0.400E-01 x= 616100.00 y= 4171750.00 Model = Cx1/SHORTZ
35 0.139E+01 0.279E-01 0.279E-01 x= 616350.00 y= 4171750.00 Model = Cx1/SHORTZ
36 0.946E+00 0.189E-01 0.189E-01 x= 616600.00 y= 4171750.00 Model = Cx1/SHORTZ
37 0.201E+01 0.401E-01 0.401E-01 x= 614600.00 y= 4172000.00 Model = ISCST
38 0.238E+01 0.476E-01 0.476E-01 x= 614850.00 y= 4172000.00 Model = ISCST
39 0.236E+01 0.472E-01 0.472E-01 x= 615100.00 y= 4172000.00 Model = ISCST
40 0.400E+01 0.801E-01 0.801E-01 x= 615350.00 y= 4172000.00 Model = ISCST
41 0.447E+01 0.893E-01 0.893E-01 x= 615600.00 y= 4172000.00 Model = ISCST
42 0.292E+01 0.584E-01 0.584E-01 x= 615850.00 y= 4172000.00 Model = Cx1/SHORTZ
43 0.203E+01 0.407E-01 0.407E-01 x= 616100.00 y= 4172000.00 Model = Cx1/SHORTZ
44 0.153E+01 0.306E-01 0.306E-01 x= 616350.00 y= 4172000.00 Model = Cx1/SHORTZ
45 0.109E+01 0.218E-01 0.218E-01 x= 616600.00 y= 4172000.00 Model = Cx1/SHORTZ
46 0.127E+01 0.255E-01 0.255E-01 x= 614600.00 y= 4172250.00 Model = ISCST
47 0.167E+01 0.334E-01 0.334E-01 x= 614850.00 y= 4172250.00 Model = ISCST
48 0.166E+01 0.331E-01 0.331E-01 x= 615100.00 y= 4172250.00 Model = ISCST
49 0.222E+01 0.443E-01 0.443E-01 x= 615350.00 y= 4172250.00 Model = ISCST
50 0.230E+01 0.459E-01 0.459E-01 x= 615600.00 y= 4172250.00 Model = Cx1/SHORTZ
51 0.223E+01 0.446E-01 0.446E-01 x= 615850.00 y= 4172250.00 Model = Cx1/SHORTZ
52 0.180E+01 0.361E-01 0.361E-01 x= 616100.00 y= 4172250.00 Model = Cx1/SHORTZ
53 0.146E+01 0.292E-01 0.292E-01 x= 616350.00 y= 4172250.00 Model = Cx1/SHORTZ
54 0.110E+01 0.219E-01 0.219E-01 x= 616600.00 y= 4172250.00 Model = Cx1/SHORTZ
55 0.967E+00 0.193E-01 0.193E-01 x= 614600.00 y= 4172500.00 Model = ISCST

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56	0.118E+01	0.237E-01	0.237E-01	x=	614850.00	y=	4172500.00	Model =	ISCST
57	0.131E+01	0.262E-01	0.262E-01	x=	615100.00	y=	4172500.00	Model =	ISCST
58	0.137E+01	0.273E-01	0.273E-01	x=	615350.00	y=	4172500.00	Model =	ISCST
59	0.133E+01	0.265E-01	0.265E-01	x=	615600.00	y=	4172500.00	Model =	Cx1/SHORTZ
60	0.148E+01	0.295E-01	0.295E-01	x=	615850.00	y=	4172500.00	Model =	Cx1/SHORTZ
61	0.148E+01	0.296E-01	0.296E-01	x=	616100.00	y=	4172500.00	Model =	Cx1/SHORTZ
62	0.122E+01	0.244E-01	0.244E-01	x=	616350.00	y=	4172500.00	Model =	Cx1/SHORTZ
63	0.108E+01	0.216E-01	0.216E-01	x=	616600.00	y=	4172500.00	Model =	Cx1/SHORTZ
64	0.895E+00	0.179E-01	0.179E-01	x=	616170.00	y=	4172880.00	Model =	Cx1/SHORTZ
65	0.780E+00	0.156E-01	0.156E-01	x=	612700.00	y=	4170900.00	Model =	ISCST
66	0.709E+00	0.142E-01	0.142E-01	x=	612700.00	y=	4170800.00	Model =	ISCST
67	0.717E+00	0.143E-01	0.143E-01	x=	612700.00	y=	4170700.00	Model =	ISCST
68	0.712E+00	0.142E-01	0.142E-01	x=	612700.00	y=	4170600.00	Model =	ISCST
69	0.702E+00	0.140E-01	0.140E-01	x=	612700.00	y=	4170500.00	Model =	ISCST
70	0.680E+00	0.136E-01	0.136E-01	x=	612700.00	y=	4170400.00	Model =	ISCST
71	0.626E+00	0.125E-01	0.125E-01	x=	612700.00	y=	4170300.00	Model =	ISCST
72	0.537E+00	0.107E-01	0.107E-01	x=	612700.00	y=	4170200.00	Model =	ISCST
73	0.483E+00	0.966E-02	0.966E-02	x=	612700.00	y=	4170100.00	Model =	ISCST
74	0.190E+00	0.380E-02	0.380E-02	x=	615900.00	y=	4169300.00	Model =	Cx1/SHORTZ
75	0.943E+00	0.189E-01	0.189E-01	x=	613450.00	y=	4172500.00	Model =	ISCST
76	0.111E+01	0.222E-01	0.222E-01	x=	613450.00	y=	4172400.00	Model =	ISCST
77	0.126E+01	0.251E-01	0.251E-01	x=	613450.00	y=	4172300.00	Model =	ISCST
78	0.153E+01	0.306E-01	0.306E-01	x=	613450.00	y=	4172200.00	Model =	ISCST
79	0.196E+01	0.392E-01	0.392E-01	x=	613450.00	y=	4172100.00	Model =	ISCST
80	0.237E+01	0.474E-01	0.474E-01	x=	613450.00	y=	4172000.00	Model =	ISCST
81	0.272E+01	0.544E-01	0.544E-01	x=	613450.00	y=	4171900.00	Model =	ISCST
82	0.324E+01	0.649E-01	0.649E-01	x=	613450.00	y=	4171800.00	Model =	ISCST
83	0.384E+01	0.768E-01	0.768E-01	x=	613450.00	y=	4171700.00	Model =	ISCST
84	0.390E+01	0.780E-01	0.780E-01	x=	613450.00	y=	4171600.00	Model =	ISCST
85	0.410E+01	0.820E-01	0.820E-01	x=	613450.00	y=	4171500.00	Model =	ISCST
86	0.336E+01	0.672E-01	0.672E-01	x=	613450.00	y=	4171400.00	Model =	ISCST
87	0.300E+01	0.601E-01	0.601E-01	x=	613450.00	y=	4171300.00	Model =	ISCST
88	0.289E+01	0.577E-01	0.577E-01	x=	613450.00	y=	4171200.00	Model =	ISCST
89	0.237E+01	0.473E-01	0.473E-01	x=	613450.00	y=	4171100.00	Model =	ISCST
90	0.179E+01	0.358E-01	0.358E-01	x=	613450.00	y=	4171000.00	Model =	ISCST
91	0.699E+00	0.140E-01	0.140E-01	x=	613000.00	y=	4172800.00	Model =	ISCST
92	0.844E+00	0.169E-01	0.169E-01	x=	613000.00	y=	4172600.00	Model =	ISCST
93	0.124E+01	0.247E-01	0.247E-01	x=	613000.00	y=	4172400.00	Model =	ISCST
94	0.157E+01	0.314E-01	0.314E-01	x=	613000.00	y=	4172200.00	Model =	ISCST
95	0.205E+01	0.410E-01	0.410E-01	x=	613000.00	y=	4172000.00	Model =	ISCST
96	0.239E+01	0.477E-01	0.477E-01	x=	613000.00	y=	4171800.00	Model =	ISCST
97	0.254E+01	0.507E-01	0.507E-01	x=	613000.00	y=	4171600.00	Model =	ISCST
98	0.183E+01	0.366E-01	0.366E-01	x=	613000.00	y=	4171400.00	Model =	ISCST
99	0.167E+01	0.333E-01	0.333E-01	x=	613000.00	y=	4171200.00	Model =	ISCST
100	0.116E+01	0.231E-01	0.231E-01	x=	613000.00	y=	4171000.00	Model =	ISCST
101	0.959E+00	0.192E-01	0.192E-01	x=	613000.00	y=	4170800.00	Model =	ISCST
102	0.114E+01	0.228E-01	0.228E-01	x=	613200.00	y=	4170800.00	Model =	ISCST
103	0.143E+01	0.286E-01	0.286E-01	x=	613400.00	y=	4170800.00	Model =	ISCST
104	0.185E+01	0.371E-01	0.371E-01	x=	613600.00	y=	4170800.00	Model =	ISCST
105	0.243E+01	0.486E-01	0.486E-01	x=	613800.00	y=	4170800.00	Model =	ISCST
106	0.274E+01	0.547E-01	0.547E-01	x=	614000.00	y=	4170800.00	Model =	ISCST
107	0.365E+01	0.731E-01	0.731E-01	x=	614200.00	y=	4170800.00	Model =	ISCST
108	0.518E+01	0.104E+00	0.104E+00	x=	614400.00	y=	4170800.00	Model =	ISCST
109	0.582E+01	0.116E+00	0.116E+00	x=	614600.00	y=	4170800.00	Model =	ISCST
110	0.520E+01	0.104E+00	0.104E+00	x=	614850.00	y=	4170800.00	Model =	Cx1/SHORTZ
111	0.215E+01	0.430E-01	0.430E-01	x=	615100.00	y=	4170800.00	Model =	Cx1/SHORTZ
112	0.127E+01	0.254E-01	0.254E-01	x=	615350.00	y=	4170800.00	Model =	Cx1/SHORTZ
113	0.903E+00	0.181E-01	0.181E-01	x=	615600.00	y=	4170800.00	Model =	Cx1/SHORTZ
114	0.682E+00	0.136E-01	0.136E-01	x=	615850.00	y=	4170800.00	Model =	Cx1/SHORTZ
115	0.801E+00	0.160E-01	0.160E-01	x=	613000.00	y=	4170400.00	Model =	ISCST
116	0.833E+00	0.167E-01	0.167E-01	x=	613200.00	y=	4170400.00	Model =	ISCST
117	0.102E+01	0.203E-01	0.203E-01	x=	613400.00	y=	4170400.00	Model =	ISCST
118	0.114E+01	0.228E-01	0.228E-01	x=	613600.00	y=	4170400.00	Model =	ISCST
119	0.124E+01	0.248E-01	0.248E-01	x=	613800.00	y=	4170400.00	Model =	ISCST
120	0.177E+01	0.355E-01	0.355E-01	x=	614000.00	y=	4170400.00	Model =	ISCST
121	0.182E+01	0.364E-01	0.364E-01	x=	614200.00	y=	4170400.00	Model =	ISCST
122	0.223E+01	0.446E-01	0.446E-01	x=	614400.00	y=	4170400.00	Model =	Cx1/SHORTZ
123	0.199E+01	0.399E-01	0.399E-01	x=	614600.00	y=	4170400.00	Model =	Cx1/SHORTZ
124	0.164E+01	0.329E-01	0.329E-01	x=	614850.00	y=	4170400.00	Model =	Cx1/SHORTZ
125	0.112E+01	0.225E-01	0.225E-01	x=	615100.00	y=	4170400.00	Model =	Cx1/SHORTZ
126	0.805E+00	0.161E-01	0.161E-01	x=	615350.00	y=	4170400.00	Model =	Cx1/SHORTZ
127	0.460E+00	0.921E-02	0.921E-02	x=	615600.00	y=	4170400.00	Model =	Cx1/SHORTZ
128	0.297E+00	0.594E-02	0.594E-02	x=	615850.00	y=	4170400.00	Model =	Cx1/SHORTZ
129	0.482E-01	0.964E-03	0.964E-03	x=	608000.00	y=	4166500.00	Model =	ISCST
130	0.446E-01	0.892E-03	0.892E-03	x=	611000.00	y=	4165500.00	Model =	Cx1/SHORTZ
131	0.140E+00	0.281E-02	0.281E-02	x=	613000.00	y=	4167500.00	Model =	Cx1/SHORTZ
132	0.431E-01	0.862E-03	0.862E-03	x=	615000.00	y=	4166500.00	Model =	Cx1/SHORTZ
133	0.203E+00	0.406E-02	0.406E-02	x=	616000.00	y=	4169500.00	Model =	Cx1/SHORTZ
134	0.140E+01	0.279E-01	0.279E-01	x=	616000.00	y=	4172500.00	Model =	Cx1/SHORTZ
135	0.213E+00	0.425E-02	0.425E-02	x=	614000.00	y=	4174500.00	Model =	ISCST
136	0.103E+00	0.206E-02	0.206E-02	x=	616000.00	y=	4175500.00	Model =	Cx1/SHORTZ
137	0.574E-01	0.115E-02	0.115E-02	x=	614000.00	y=	4177500.00	Model =	Cx1/SHORTZ
138	0.221E+00	0.442E-02	0.442E-02	x=	606000.00	y=	4174500.00	Model =	ISCST
139	0.426E+00	0.853E-02	0.853E-02	x=	609000.00	y=	4174500.00	Model =	ISCST
140	0.232E+00	0.463E-02	0.463E-02	x=	612000.00	y=	4174500.00	Model =	ISCST
141	0.262E+00	0.524E-02	0.524E-02	x=	609000.00	y=	4173500.00	Model =	ISCST
142	0.162E+00	0.324E-02	0.324E-02	x=	610000.00	y=	4175500.00	Model =	ISCST
143	0.542E+00	0.108E-01	0.108E-01	x=	610000.00	y=	4173500.00	Model =	ISCST

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144	0.148E+00	0.296E-02	0.296E-02	x=	608000.00	y=	4177500.00	Model =	ISCST
145	0.108E+00	0.216E-02	0.216E-02	x=	611000.00	y=	4177500.00	Model =	ISCST
146	0.850E-01	0.170E-02	0.170E-02	x=	606000.00	y=	4171500.00	Model =	ISCST
147	0.811E-01	0.162E-02	0.162E-02	x=	606000.00	y=	4172500.00	Model =	ISCST
148	0.123E+00	0.246E-02	0.246E-02	x=	607000.00	y=	4172500.00	Model =	ISCST
149	0.109E+00	0.217E-02	0.217E-02	x=	607000.00	y=	4171500.00	Model =	ISCST
150	0.189E+00	0.379E-02	0.379E-02	x=	608000.00	y=	4172500.00	Model =	ISCST
151	0.143E+00	0.287E-02	0.287E-02	x=	608000.00	y=	4171500.00	Model =	ISCST
152	0.435E+00	0.870E-02	0.870E-02	x=	609000.00	y=	4172500.00	Model =	ISCST
153	0.734E+00	0.147E-01	0.147E-01	x=	610000.00	y=	4172500.00	Model =	ISCST
154	0.297E+00	0.595E-02	0.595E-02	x=	610000.00	y=	4171500.00	Model =	ISCST
155	0.787E+00	0.157E-01	0.157E-01	x=	612000.00	y=	4171500.00	Model =	ISCST
156	0.257E+00	0.514E-02	0.514E-02	x=	611000.00	y=	4169500.00	Model =	ISCST
157	0.446E+00	0.891E-02	0.891E-02	x=	612000.00	y=	4170500.00	Model =	ISCST
158	0.633E+00	0.127E-01	0.127E-01	x=	611000.00	y=	4172500.00	Model =	ISCST
159	0.105E+01	0.209E-01	0.209E-01	x=	613000.00	y=	4172500.00	Model =	ISCST
160	0.376E+00	0.752E-02	0.752E-02	x=	612000.00	y=	4173500.00	Model =	ISCST
161	0.926E-01	0.185E-02	0.185E-02	x=	608000.00	y=	4169500.00	Model =	ISCST
162	0.123E+00	0.246E-02	0.246E-02	x=	609000.00	y=	4169500.00	Model =	ISCST
163	0.178E+00	0.357E-02	0.357E-02	x=	610000.00	y=	4169500.00	Model =	ISCST
164	0.105E+00	0.209E-02	0.209E-02	x=	608000.00	y=	4170500.00	Model =	ISCST
165	0.143E+00	0.286E-02	0.286E-02	x=	609000.00	y=	4170500.00	Model =	ISCST
166	0.625E-01	0.125E-02	0.125E-02	x=	606000.00	y=	4170500.00	Model =	ISCST
167	0.830E-01	0.166E-02	0.166E-02	x=	607000.00	y=	4170500.00	Model =	ISCST
168	0.469E-01	0.939E-03	0.939E-03	x=	606000.00	y=	4169500.00	Model =	ISCST
169	0.638E-01	0.128E-02	0.128E-02	x=	607000.00	y=	4169500.00	Model =	ISCST
170	0.490E-01	0.981E-03	0.981E-03	x=	606000.00	y=	4168500.00	Model =	ISCST
171	0.106E+01	0.212E-01	0.212E-01	x=	614600.00	y=	4170150.00	Model =	Cx1/SHORTZ
172	0.901E+00	0.180E-01	0.180E-01	x=	614850.00	y=	4170150.00	Model =	Cx1/SHORTZ
173	0.813E+00	0.163E-01	0.163E-01	x=	615100.00	y=	4170150.00	Model =	Cx1/SHORTZ
174	0.584E+00	0.117E-01	0.117E-01	x=	615350.00	y=	4170150.00	Model =	Cx1/SHORTZ
175	0.597E+00	0.119E-01	0.119E-01	x=	614850.00	y=	4169900.00	Model =	Cx1/SHORTZ
176	0.444E+00	0.888E-02	0.888E-02	x=	615100.00	y=	4169900.00	Model =	Cx1/SHORTZ
177	0.416E+00	0.831E-02	0.831E-02	x=	615350.00	y=	4169900.00	Model =	Cx1/SHORTZ
178	0.801E+00	0.160E-01	0.160E-01	x=	615900.00	y=	4172900.00	Model =	Cx1/SHORTZ
179	0.822E+00	0.164E-01	0.164E-01	x=	616400.00	y=	4172900.00	Model =	Cx1/SHORTZ
180	0.779E+00	0.156E-01	0.156E-01	x=	616700.00	y=	4172900.00	Model =	Cx1/SHORTZ
181	0.677E+00	0.135E-01	0.135E-01	x=	617000.00	y=	4172900.00	Model =	Cx1/SHORTZ
182	0.149E+02	0.297E+00	0.297E+00	x=	614900.00	y=	4171050.00	Model =	Cx1/SHORTZ
183	0.871E+01	0.174E+00	0.174E+00	x=	615000.00	y=	4171050.00	Model =	Cx1/SHORTZ
184	0.704E+01	0.141E+00	0.141E+00	x=	615100.00	y=	4171050.00	Model =	Cx1/SHORTZ
185	0.509E+01	0.102E+00	0.102E+00	x=	615200.00	y=	4171050.00	Model =	Cx1/SHORTZ
186	0.419E+01	0.838E-01	0.838E-01	x=	615300.00	y=	4171050.00	Model =	Cx1/SHORTZ
187	0.665E+02	0.133E+01	0.133E+01	x=	614900.00	y=	4171150.00	Model =	Cx1/SHORTZ
188	0.303E+02	0.606E+00	0.606E+00	x=	615000.00	y=	4171150.00	Model =	Cx1/SHORTZ
189	0.170E+02	0.340E+00	0.340E+00	x=	615100.00	y=	4171150.00	Model =	Cx1/SHORTZ
190	0.104E+02	0.207E+00	0.207E+00	x=	615200.00	y=	4171150.00	Model =	Cx1/SHORTZ
191	0.683E+01	0.137E+00	0.137E+00	x=	615300.00	y=	4171150.00	Model =	Cx1/SHORTZ
192	0.806E+02	0.161E+01	0.161E+01	x=	614900.00	y=	4171250.00	Model =	ISCST
193	0.323E+02	0.647E+00	0.647E+00	x=	615000.00	y=	4171250.00	Model =	ISCST
194	0.141E+02	0.282E+00	0.282E+00	x=	615200.00	y=	4171250.00	Model =	Cx1/SHORTZ
195	0.913E+01	0.183E+00	0.183E+00	x=	615300.00	y=	4171250.00	Model =	Cx1/SHORTZ
196	0.434E+02	0.867E+00	0.867E+00	x=	614900.00	y=	4171350.00	Model =	ISCST
197	0.379E+02	0.758E+00	0.758E+00	x=	615000.00	y=	4171350.00	Model =	ISCST
198	0.232E+02	0.465E+00	0.465E+00	x=	615100.00	y=	4171350.00	Model =	ISCST
199	0.145E+02	0.290E+00	0.290E+00	x=	615200.00	y=	4171350.00	Model =	ISCST
200	0.951E+01	0.190E+00	0.190E+00	x=	615300.00	y=	4171350.00	Model =	ISCST
201	0.153E+02	0.307E+00	0.307E+00	x=	614900.00	y=	4171450.00	Model =	ISCST
202	0.225E+02	0.451E+00	0.451E+00	x=	615000.00	y=	4171450.00	Model =	ISCST
203	0.215E+02	0.429E+00	0.429E+00	x=	615100.00	y=	4171450.00	Model =	ISCST
204	0.157E+02	0.314E+00	0.314E+00	x=	615200.00	y=	4171450.00	Model =	ISCST
205	0.112E+02	0.225E+00	0.225E+00	x=	615300.00	y=	4171450.00	Model =	ISCST

MAXIMUM ONE-HOUR CONCENTRATIONS

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1	0.826E+02	0.165E+01	0.165E+01	x=	614600.00	y=	4171000.00	Model =	ISCST
2	0.112E+03	0.224E+01	0.224E+01	x=	614850.00	y=	4171000.00	Model =	ISCST
3	0.112E+03	0.224E+01	0.224E+01	x=	615100.00	y=	4171000.00	Model =	ISCST
4	0.252E+03	0.505E+01	0.505E+01	x=	615350.00	y=	4171000.00	Model =	Cx1/SHORTZ
5	0.244E+03	0.487E+01	0.487E+01	x=	615600.00	y=	4171000.00	Model =	Cx1/SHORTZ
6	0.166E+03	0.333E+01	0.333E+01	x=	615850.00	y=	4171000.00	Model =	Cx1/SHORTZ
7	0.117E+03	0.235E+01	0.235E+01	x=	616100.00	y=	4171000.00	Model =	Cx1/SHORTZ
8	0.880E+02	0.176E+01	0.176E+01	x=	616350.00	y=	4171000.00	Model =	Cx1/SHORTZ
9	0.683E+02	0.137E+01	0.137E+01	x=	616600.00	y=	4171000.00	Model =	Cx1/SHORTZ
10	0.541E+02	0.108E+01	0.108E+01	x=	614600.00	y=	4171250.00	Model =	ISCST
11	0.910E+02	0.182E+01	0.182E+01	x=	614850.00	y=	4171250.00	Model =	ISCST
12	0.100E+03	0.200E+01	0.200E+01	x=	615100.00	y=	4171250.00	Model =	ISCST
13	0.757E+02	0.151E+01	0.151E+01	x=	615350.00	y=	4171250.00	Model =	ISCST
14	0.154E+03	0.308E+01	0.308E+01	x=	615600.00	y=	4171250.00	Model =	Cx1/SHORTZ
15	0.148E+03	0.296E+01	0.296E+01	x=	615850.00	y=	4171250.00	Model =	Cx1/SHORTZ
16	0.119E+03	0.238E+01	0.238E+01	x=	616100.00	y=	4171250.00	Model =	Cx1/SHORTZ
17	0.858E+02	0.172E+01	0.172E+01	x=	616350.00	y=	4171250.00	Model =	Cx1/SHORTZ
18	0.711E+02	0.142E+01	0.142E+01	x=	616600.00	y=	4171250.00	Model =	Cx1/SHORTZ
19	0.445E+02	0.890E+00	0.890E+00	x=	614600.00	y=	4171500.00	Model =	ISCST
20	0.504E+02	0.101E+01	0.101E+01	x=	614850.00	y=	4171500.00	Model =	ISCST

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21	0.115E+03	0.230E+01	0.230E+01	x=	615100.00	y=	4171500.00	Model =	ISCST
22	0.725E+02	0.145E+01	0.145E+01	x=	615350.00	y=	4171500.00	Model =	ISCST
23	0.504E+02	0.101E+01	0.101E+01	x=	615600.00	y=	4171500.00	Model =	ISCST
24	0.679E+02	0.136E+01	0.136E+01	x=	615850.00	y=	4171500.00	Model =	ISCST
25	0.102E+03	0.203E+01	0.203E+01	x=	616100.00	y=	4171500.00	Model =	Cx1/SHORTZ
26	0.855E+02	0.171E+01	0.171E+01	x=	616350.00	y=	4171500.00	Model =	Cx1/SHORTZ
27	0.684E+02	0.137E+01	0.137E+01	x=	616600.00	y=	4171500.00	Model =	Cx1/SHORTZ
28	0.329E+02	0.658E+00	0.658E+00	x=	614600.00	y=	4171750.00	Model =	ISCST
29	0.343E+02	0.686E+00	0.686E+00	x=	614850.00	y=	4171750.00	Model =	ISCST
30	0.358E+02	0.716E+00	0.716E+00	x=	615100.00	y=	4171750.00	Model =	ISCST
31	0.759E+02	0.152E+01	0.152E+01	x=	615350.00	y=	4171750.00	Model =	ISCST
32	0.608E+02	0.122E+01	0.122E+01	x=	615600.00	y=	4171750.00	Model =	ISCST
33	0.501E+02	0.100E+01	0.100E+01	x=	615850.00	y=	4171750.00	Model =	ISCST
34	0.902E+02	0.180E+01	0.180E+01	x=	616100.00	y=	4171750.00	Model =	Cx1/SHORTZ
35	0.678E+02	0.136E+01	0.136E+01	x=	616350.00	y=	4171750.00	Model =	Cx1/SHORTZ
36	0.612E+02	0.122E+01	0.122E+01	x=	616600.00	y=	4171750.00	Model =	Cx1/SHORTZ
37	0.276E+02	0.552E+00	0.552E+00	x=	614600.00	y=	4172000.00	Model =	ISCST
38	0.396E+02	0.792E+00	0.792E+00	x=	614850.00	y=	4172000.00	Model =	ISCST
39	0.327E+02	0.654E+00	0.654E+00	x=	615100.00	y=	4172000.00	Model =	ISCST
40	0.419E+02	0.838E+00	0.838E+00	x=	615350.00	y=	4172000.00	Model =	ISCST
41	0.538E+02	0.108E+01	0.108E+01	x=	615600.00	y=	4172000.00	Model =	ISCST
42	0.451E+02	0.902E+00	0.902E+00	x=	615850.00	y=	4172000.00	Model =	ISCST
43	0.704E+02	0.141E+01	0.141E+01	x=	616100.00	y=	4172000.00	Model =	Cx1/SHORTZ
44	0.628E+02	0.126E+01	0.126E+01	x=	616350.00	y=	4172000.00	Model =	Cx1/SHORTZ
45	0.556E+02	0.111E+01	0.111E+01	x=	616600.00	y=	4172000.00	Model =	Cx1/SHORTZ
46	0.270E+02	0.540E+00	0.540E+00	x=	614600.00	y=	4172250.00	Model =	ISCST
47	0.366E+02	0.733E+00	0.733E+00	x=	614850.00	y=	4172250.00	Model =	ISCST
48	0.294E+02	0.587E+00	0.587E+00	x=	615100.00	y=	4172250.00	Model =	ISCST
49	0.325E+02	0.651E+00	0.651E+00	x=	615350.00	y=	4172250.00	Model =	ISCST
50	0.402E+02	0.803E+00	0.803E+00	x=	615600.00	y=	4172250.00	Model =	ISCST
51	0.643E+02	0.129E+01	0.129E+01	x=	615850.00	y=	4172250.00	Model =	ISCST
52	0.630E+02	0.126E+01	0.126E+01	x=	616100.00	y=	4172250.00	Model =	Cx1/SHORTZ
53	0.582E+02	0.116E+01	0.116E+01	x=	616350.00	y=	4172250.00	Model =	Cx1/SHORTZ
54	0.537E+02	0.107E+01	0.107E+01	x=	616600.00	y=	4172250.00	Model =	Cx1/SHORTZ
55	0.228E+02	0.456E+00	0.456E+00	x=	614600.00	y=	4172500.00	Model =	ISCST
56	0.320E+02	0.640E+00	0.640E+00	x=	614850.00	y=	4172500.00	Model =	ISCST
57	0.241E+02	0.483E+00	0.483E+00	x=	615100.00	y=	4172500.00	Model =	ISCST
58	0.297E+02	0.594E+00	0.594E+00	x=	615350.00	y=	4172500.00	Model =	ISCST
59	0.379E+02	0.757E+00	0.757E+00	x=	615600.00	y=	4172500.00	Model =	ISCST
60	0.569E+02	0.114E+01	0.114E+01	x=	615850.00	y=	4172500.00	Model =	ISCST
61	0.554E+02	0.111E+01	0.111E+01	x=	616100.00	y=	4172500.00	Model =	Cx1/SHORTZ
62	0.501E+02	0.100E+01	0.100E+01	x=	616350.00	y=	4172500.00	Model =	Cx1/SHORTZ
63	0.449E+02	0.899E+00	0.899E+00	x=	616600.00	y=	4172500.00	Model =	Cx1/SHORTZ
64	0.462E+02	0.925E+00	0.925E+00	x=	616170.00	y=	4172880.00	Model =	Cx1/SHORTZ
65	0.236E+02	0.472E+00	0.472E+00	x=	612700.00	y=	4170900.00	Model =	ISCST
66	0.188E+02	0.376E+00	0.376E+00	x=	612700.00	y=	4170800.00	Model =	ISCST
67	0.169E+02	0.338E+00	0.338E+00	x=	612700.00	y=	4170700.00	Model =	ISCST
68	0.269E+02	0.538E+00	0.538E+00	x=	612700.00	y=	4170600.00	Model =	ISCST
69	0.317E+02	0.634E+00	0.634E+00	x=	612700.00	y=	4170500.00	Model =	ISCST
70	0.257E+02	0.514E+00	0.514E+00	x=	612700.00	y=	4170400.00	Model =	ISCST
71	0.292E+02	0.584E+00	0.584E+00	x=	612700.00	y=	4170300.00	Model =	ISCST
72	0.268E+02	0.536E+00	0.536E+00	x=	612700.00	y=	4170200.00	Model =	ISCST
73	0.179E+02	0.359E+00	0.359E+00	x=	612700.00	y=	4170100.00	Model =	ISCST
74	0.589E+02	0.118E+01	0.118E+01	x=	615900.00	y=	4169300.00	Model =	Cx1/SHORTZ
75	0.143E+02	0.285E+00	0.285E+00	x=	613450.00	y=	4172500.00	Model =	ISCST
76	0.251E+02	0.502E+00	0.502E+00	x=	613450.00	y=	4172400.00	Model =	ISCST
77	0.355E+02	0.710E+00	0.710E+00	x=	613450.00	y=	4172300.00	Model =	ISCST
78	0.320E+02	0.639E+00	0.639E+00	x=	613450.00	y=	4172200.00	Model =	ISCST
79	0.165E+02	0.331E+00	0.331E+00	x=	613450.00	y=	4172100.00	Model =	ISCST
80	0.165E+02	0.331E+00	0.331E+00	x=	613450.00	y=	4172000.00	Model =	ISCST
81	0.176E+02	0.352E+00	0.352E+00	x=	613450.00	y=	4171900.00	Model =	ISCST
82	0.189E+02	0.378E+00	0.378E+00	x=	613450.00	y=	4171800.00	Model =	ISCST
83	0.199E+02	0.397E+00	0.397E+00	x=	613450.00	y=	4171700.00	Model =	ISCST
84	0.198E+02	0.396E+00	0.396E+00	x=	613450.00	y=	4171600.00	Model =	ISCST
85	0.225E+02	0.450E+00	0.450E+00	x=	613450.00	y=	4171500.00	Model =	ISCST
86	0.221E+02	0.443E+00	0.443E+00	x=	613450.00	y=	4171400.00	Model =	ISCST
87	0.258E+02	0.515E+00	0.515E+00	x=	613450.00	y=	4171300.00	Model =	ISCST
88	0.339E+02	0.678E+00	0.678E+00	x=	613450.00	y=	4171200.00	Model =	ISCST
89	0.255E+02	0.509E+00	0.509E+00	x=	613450.00	y=	4171100.00	Model =	ISCST
90	0.273E+02	0.546E+00	0.546E+00	x=	613450.00	y=	4171000.00	Model =	ISCST
91	0.243E+02	0.485E+00	0.485E+00	x=	613000.00	y=	4172800.00	Model =	ISCST
92	0.325E+02	0.650E+00	0.650E+00	x=	613000.00	y=	4172600.00	Model =	ISCST
93	0.132E+02	0.263E+00	0.263E+00	x=	613000.00	y=	4172400.00	Model =	ISCST
94	0.141E+02	0.281E+00	0.281E+00	x=	613000.00	y=	4172200.00	Model =	ISCST
95	0.146E+02	0.292E+00	0.292E+00	x=	613000.00	y=	4172000.00	Model =	ISCST
96	0.163E+02	0.326E+00	0.326E+00	x=	613000.00	y=	4171800.00	Model =	ISCST
97	0.183E+02	0.366E+00	0.366E+00	x=	613000.00	y=	4171600.00	Model =	ISCST
98	0.176E+02	0.353E+00	0.353E+00	x=	613000.00	y=	4171400.00	Model =	ISCST
99	0.260E+02	0.521E+00	0.521E+00	x=	613000.00	y=	4171200.00	Model =	ISCST
100	0.208E+02	0.417E+00	0.417E+00	x=	613000.00	y=	4171000.00	Model =	ISCST
101	0.193E+02	0.386E+00	0.386E+00	x=	613000.00	y=	4170800.00	Model =	ISCST
102	0.222E+02	0.444E+00	0.444E+00	x=	613200.00	y=	4170800.00	Model =	ISCST
103	0.394E+02	0.787E+00	0.787E+00	x=	613400.00	y=	4170800.00	Model =	ISCST
104	0.537E+02	0.107E+01	0.107E+01	x=	613600.00	y=	4170800.00	Model =	ISCST
105	0.516E+02	0.103E+01	0.103E+01	x=	613800.00	y=	4170800.00	Model =	ISCST
106	0.555E+02	0.111E+01	0.111E+01	x=	614000.00	y=	4170800.00	Model =	ISCST
107	0.503E+02	0.101E+01	0.101E+01	x=	614200.00	y=	4170800.00	Model =	ISCST
108	0.576E+02	0.115E+01	0.115E+01	x=	614400.00	y=	4170800.00	Model =	ISCST

109	0.690E+02	0.138E+01	0.138E+01	x=	614600.00	y=	4170800.00	Model =	ISCST
110	0.101E+03	0.201E+01	0.201E+01	x=	614850.00	y=	4170800.00	Model =	ISCST
111	0.166E+03	0.331E+01	0.331E+01	x=	615100.00	y=	4170800.00	Model =	Cx1/SHORTZ
112	0.339E+03	0.677E+01	0.677E+01	x=	615350.00	y=	4170800.00	Model =	Cx1/SHORTZ
113	0.224E+03	0.449E+01	0.449E+01	x=	615600.00	y=	4170800.00	Model =	Cx1/SHORTZ
114	0.157E+03	0.315E+01	0.315E+01	x=	615850.00	y=	4170800.00	Model =	Cx1/SHORTZ
115	0.342E+02	0.685E+00	0.685E+00	x=	613000.00	y=	4170400.00	Model =	ISCST
116	0.287E+02	0.574E+00	0.574E+00	x=	613200.00	y=	4170400.00	Model =	ISCST
117	0.229E+02	0.459E+00	0.459E+00	x=	613400.00	y=	4170400.00	Model =	ISCST
118	0.263E+02	0.526E+00	0.526E+00	x=	613600.00	y=	4170400.00	Model =	ISCST
119	0.321E+02	0.641E+00	0.641E+00	x=	613800.00	y=	4170400.00	Model =	ISCST
120	0.393E+02	0.786E+00	0.786E+00	x=	614000.00	y=	4170400.00	Model =	ISCST
121	0.388E+02	0.776E+00	0.776E+00	x=	614200.00	y=	4170400.00	Model =	ISCST
122	0.529E+02	0.106E+01	0.106E+01	x=	614400.00	y=	4170400.00	Model =	ISCST
123	0.742E+02	0.148E+01	0.148E+01	x=	614600.00	y=	4170400.00	Model =	ISCST
124	0.254E+03	0.507E+01	0.507E+01	x=	614850.00	y=	4170400.00	Model =	Cx1/SHORTZ
125	0.257E+03	0.514E+01	0.514E+01	x=	615100.00	y=	4170400.00	Model =	Cx1/SHORTZ
126	0.201E+03	0.401E+01	0.401E+01	x=	615350.00	y=	4170400.00	Model =	Cx1/SHORTZ
127	0.152E+03	0.303E+01	0.303E+01	x=	615600.00	y=	4170400.00	Model =	Cx1/SHORTZ
128	0.121E+03	0.241E+01	0.241E+01	x=	615850.00	y=	4170400.00	Model =	Cx1/SHORTZ
129	0.692E+01	0.138E+00	0.138E+00	x=	608000.00	y=	4166500.00	Model =	ISCST
130	0.663E+01	0.133E+00	0.133E+00	x=	611000.00	y=	4165500.00	Model =	Cx1/SHORTZ
131	0.353E+02	0.706E+00	0.706E+00	x=	613000.00	y=	4167500.00	Model =	Cx1/SHORTZ
132	0.136E+02	0.272E+00	0.272E+00	x=	615000.00	y=	4166500.00	Model =	Cx1/SHORTZ
133	0.596E+02	0.119E+01	0.119E+01	x=	616000.00	y=	4169500.00	Model =	Cx1/SHORTZ
134	0.543E+02	0.109E+01	0.109E+01	x=	616000.00	y=	4172500.00	Model =	ISCST
135	0.196E+02	0.393E+00	0.393E+00	x=	614000.00	y=	4174500.00	Model =	ISCST
136	0.183E+02	0.366E+00	0.366E+00	x=	616000.00	y=	4175500.00	Model =	Cx1/SHORTZ
137	0.224E+02	0.449E+00	0.449E+00	x=	614000.00	y=	4177500.00	Model =	Cx1/SHORTZ
138	0.468E+01	0.936E-01	0.936E-01	x=	606000.00	y=	4174500.00	Model =	ISCST
139	0.136E+02	0.272E+00	0.272E+00	x=	609000.00	y=	4174500.00	Model =	ISCST
140	0.756E+01	0.151E+00	0.151E+00	x=	612000.00	y=	4174500.00	Model =	ISCST
141	0.702E+01	0.140E+00	0.140E+00	x=	609000.00	y=	4173500.00	Model =	ISCST
142	0.114E+02	0.228E+00	0.228E+00	x=	610000.00	y=	4175500.00	Model =	ISCST
143	0.929E+01	0.186E+00	0.186E+00	x=	610000.00	y=	4173500.00	Model =	ISCST
144	0.785E+01	0.157E+00	0.157E+00	x=	608000.00	y=	4177500.00	Model =	ISCST
145	0.727E+01	0.145E+00	0.145E+00	x=	611000.00	y=	4177500.00	Model =	ISCST
146	0.599E+01	0.120E+00	0.120E+00	x=	606000.00	y=	4171500.00	Model =	ISCST
147	0.473E+01	0.945E-01	0.945E-01	x=	606000.00	y=	4172500.00	Model =	ISCST
148	0.506E+01	0.101E+00	0.101E+00	x=	607000.00	y=	4172500.00	Model =	ISCST
149	0.659E+01	0.132E+00	0.132E+00	x=	607000.00	y=	4171500.00	Model =	ISCST
150	0.520E+01	0.104E+00	0.104E+00	x=	608000.00	y=	4172500.00	Model =	ISCST
151	0.729E+01	0.146E+00	0.146E+00	x=	608000.00	y=	4171500.00	Model =	ISCST
152	0.769E+01	0.154E+00	0.154E+00	x=	609000.00	y=	4172500.00	Model =	ISCST
153	0.109E+02	0.218E+00	0.218E+00	x=	610000.00	y=	4172500.00	Model =	ISCST
154	0.907E+01	0.181E+00	0.181E+00	x=	610000.00	y=	4171500.00	Model =	ISCST
155	0.118E+02	0.237E+00	0.237E+00	x=	612000.00	y=	4171500.00	Model =	ISCST
156	0.172E+02	0.344E+00	0.344E+00	x=	611000.00	y=	4169500.00	Model =	ISCST
157	0.139E+02	0.278E+00	0.278E+00	x=	612000.00	y=	4170500.00	Model =	ISCST
158	0.852E+01	0.170E+00	0.170E+00	x=	611000.00	y=	4172500.00	Model =	ISCST
159	0.244E+02	0.487E+00	0.487E+00	x=	613000.00	y=	4172500.00	Model =	ISCST
160	0.243E+02	0.485E+00	0.485E+00	x=	612000.00	y=	4173500.00	Model =	ISCST
161	0.746E+01	0.149E+00	0.149E+00	x=	608000.00	y=	4169500.00	Model =	ISCST
162	0.111E+02	0.222E+00	0.222E+00	x=	609000.00	y=	4169500.00	Model =	ISCST
163	0.136E+02	0.273E+00	0.273E+00	x=	610000.00	y=	4169500.00	Model =	ISCST
164	0.821E+01	0.164E+00	0.164E+00	x=	608000.00	y=	4170500.00	Model =	ISCST
165	0.112E+02	0.223E+00	0.223E+00	x=	609000.00	y=	4170500.00	Model =	ISCST
166	0.440E+01	0.880E-01	0.880E-01	x=	606000.00	y=	4170500.00	Model =	ISCST
167	0.597E+01	0.119E+00	0.119E+00	x=	607000.00	y=	4170500.00	Model =	ISCST
168	0.541E+01	0.108E+00	0.108E+00	x=	606000.00	y=	4169500.00	Model =	ISCST
169	0.579E+01	0.116E+00	0.116E+00	x=	607000.00	y=	4169500.00	Model =	ISCST
170	0.830E+01	0.166E+00	0.166E+00	x=	606000.00	y=	4168500.00	Model =	ISCST
171	0.106E+03	0.212E+01	0.212E+01	x=	614600.00	y=	4170150.00	Model =	Cx1/SHORTZ
172	0.149E+03	0.298E+01	0.298E+01	x=	614850.00	y=	4170150.00	Model =	Cx1/SHORTZ
173	0.174E+03	0.348E+01	0.348E+01	x=	615100.00	y=	4170150.00	Model =	Cx1/SHORTZ
174	0.150E+03	0.300E+01	0.300E+01	x=	615350.00	y=	4170150.00	Model =	Cx1/SHORTZ
175	0.112E+03	0.223E+01	0.223E+01	x=	614850.00	y=	4169900.00	Model =	Cx1/SHORTZ
176	0.118E+03	0.235E+01	0.235E+01	x=	615100.00	y=	4169900.00	Model =	Cx1/SHORTZ
177	0.113E+03	0.227E+01	0.227E+01	x=	615350.00	y=	4169900.00	Model =	Cx1/SHORTZ
178	0.565E+02	0.113E+01	0.113E+01	x=	615900.00	y=	4172900.00	Model =	ISCST
179	0.434E+02	0.868E+00	0.868E+00	x=	616400.00	y=	4172900.00	Model =	Cx1/SHORTZ
180	0.380E+02	0.760E+00	0.760E+00	x=	616700.00	y=	4172900.00	Model =	Cx1/SHORTZ
181	0.338E+02	0.677E+00	0.677E+00	x=	617000.00	y=	4172900.00	Model =	Cx1/SHORTZ
182	0.145E+03	0.291E+01	0.291E+01	x=	614900.00	y=	4171050.00	Model =	ISCST
183	0.126E+03	0.252E+01	0.252E+01	x=	615000.00	y=	4171050.00	Model =	ISCST
184	0.101E+03	0.203E+01	0.203E+01	x=	615100.00	y=	4171050.00	Model =	ISCST
185	0.107E+03	0.214E+01	0.214E+01	x=	615200.00	y=	4171050.00	Model =	ISCST
186	0.175E+03	0.349E+01	0.349E+01	x=	615300.00	y=	4171050.00	Model =	Cx1/SHORTZ
187	0.147E+03	0.294E+01	0.294E+01	x=	614900.00	y=	4171150.00	Model =	ISCST
188	0.122E+03	0.243E+01	0.243E+01	x=	615000.00	y=	4171150.00	Model =	ISCST
189	0.990E+02	0.198E+01	0.198E+01	x=	615100.00	y=	4171150.00	Model =	ISCST
190	0.950E+02	0.190E+01	0.190E+01	x=	615200.00	y=	4171150.00	Model =	ISCST
191	0.929E+02	0.186E+01	0.186E+01	x=	615300.00	y=	4171150.00	Model =	ISCST
192	0.110E+03	0.219E+01	0.219E+01	x=	614900.00	y=	4171250.00	Model =	ISCST
193	0.940E+02	0.188E+01	0.188E+01	x=	615000.00	y=	4171250.00	Model =	ISCST
194	0.865E+02	0.173E+01	0.173E+01	x=	615200.00	y=	4171250.00	Model =	ISCST
195	0.787E+02	0.157E+01	0.157E+01	x=	615300.00	y=	4171250.00	Model =	ISCST
196	0.886E+02	0.177E+01	0.177E+01	x=	614900.00	y=	4171350.00	Model =	ISCST


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197 0.130E+03 0.259E+01 0.259E+01 x= 615000.00 y= 4171350.00 Model = ISCST
198 0.888E+02 0.178E+01 0.178E+01 x= 615100.00 y= 4171350.00 Model = ISCST
199 0.700E+02 0.140E+01 0.140E+01 x= 615200.00 y= 4171350.00 Model = ISCST
200 0.616E+02 0.123E+01 0.123E+01 x= 615300.00 y= 4171350.00 Model = ISCST
201 0.576E+02 0.115E+01 0.115E+01 x= 614900.00 y= 4171450.00 Model = ISCST
202 0.106E+03 0.211E+01 0.211E+01 x= 615000.00 y= 4171450.00 Model = ISCST
203 0.772E+02 0.154E+01 0.154E+01 x= 615100.00 y= 4171450.00 Model = ISCST
204 0.994E+02 0.199E+01 0.199E+01 x= 615200.00 y= 4171450.00 Model = ISCST
205 0.859E+02 0.172E+01 0.172E+01 x= 615300.00 y= 4171450.00 Model = ISCST

1 0.227E+04 0.453E+02 0.453E+02 x= 614600.00 y= 4171000.00 Model = ISCST
2 0.150E+05 0.300E+03 0.300E+03 x= 614850.00 y= 4171000.00 Model = Cx1/SHORTZ
3 0.430E+04 0.860E+02 0.860E+02 x= 615100.00 y= 4171000.00 Model = Cx1/SHORTZ
4 0.175E+04 0.351E+02 0.351E+02 x= 615350.00 y= 4171000.00 Model = Cx1/SHORTZ
5 0.956E+03 0.191E+02 0.191E+02 x= 615600.00 y= 4171000.00 Model = Cx1/SHORTZ
6 0.585E+03 0.117E+02 0.117E+02 x= 615850.00 y= 4171000.00 Model = Cx1/SHORTZ
7 0.392E+03 0.784E+01 0.784E+01 x= 616100.00 y= 4171000.00 Model = Cx1/SHORTZ
8 0.284E+03 0.568E+01 0.568E+01 x= 616350.00 y= 4171000.00 Model = Cx1/SHORTZ
9 0.215E+03 0.430E+01 0.430E+01 x= 616600.00 y= 4171000.00 Model = Cx1/SHORTZ
10 0.269E+04 0.537E+02 0.537E+02 x= 614600.00 y= 4171250.00 Model = ISCST
11 0.767E+04 0.153E+03 0.153E+03 x= 614850.00 y= 4171250.00 Model = ISCST
12 0.514E+04 0.103E+03 0.103E+03 x= 615100.00 y= 4171250.00 Model = Cx1/SHORTZ
13 0.187E+04 0.374E+02 0.374E+02 x= 615350.00 y= 4171250.00 Model = Cx1/SHORTZ
14 0.983E+03 0.197E+02 0.197E+02 x= 615600.00 y= 4171250.00 Model = Cx1/SHORTZ
15 0.592E+03 0.118E+02 0.118E+02 x= 615850.00 y= 4171250.00 Model = Cx1/SHORTZ
16 0.412E+03 0.824E+01 0.824E+01 x= 616100.00 y= 4171250.00 Model = Cx1/SHORTZ
17 0.283E+03 0.565E+01 0.565E+01 x= 616350.00 y= 4171250.00 Model = Cx1/SHORTZ
18 0.225E+03 0.450E+01 0.450E+01 x= 616600.00 y= 4171250.00 Model = Cx1/SHORTZ
19 0.116E+04 0.232E+02 0.232E+02 x= 614600.00 y= 4171500.00 Model = ISCST
20 0.135E+04 0.271E+02 0.271E+02 x= 614850.00 y= 4171500.00 Model = ISCST
21 0.113E+04 0.226E+02 0.226E+02 x= 615100.00 y= 4171500.00 Model = ISCST
22 0.101E+04 0.202E+02 0.202E+02 x= 615350.00 y= 4171500.00 Model = ISCST
23 0.855E+03 0.171E+02 0.171E+02 x= 615600.00 y= 4171500.00 Model = Cx1/SHORTZ
24 0.508E+03 0.102E+02 0.102E+02 x= 615850.00 y= 4171500.00 Model = Cx1/SHORTZ
25 0.383E+03 0.766E+01 0.766E+01 x= 616100.00 y= 4171500.00 Model = Cx1/SHORTZ
26 0.282E+03 0.564E+01 0.564E+01 x= 616350.00 y= 4171500.00 Model = Cx1/SHORTZ
27 0.219E+03 0.438E+01 0.438E+01 x= 616600.00 y= 4171500.00 Model = Cx1/SHORTZ
28 0.668E+03 0.134E+02 0.134E+02 x= 614600.00 y= 4171750.00 Model = ISCST
29 0.649E+03 0.130E+02 0.130E+02 x= 614850.00 y= 4171750.00 Model = ISCST
30 0.787E+03 0.157E+02 0.157E+02 x= 615100.00 y= 4171750.00 Model = ISCST
31 0.575E+03 0.115E+02 0.115E+02 x= 615350.00 y= 4171750.00 Model = ISCST
32 0.136E+04 0.272E+02 0.272E+02 x= 615600.00 y= 4171750.00 Model = ISCST
33 0.471E+03 0.942E+01 0.942E+01 x= 615850.00 y= 4171750.00 Model = Cx1/SHORTZ
34 0.353E+03 0.705E+01 0.705E+01 x= 616100.00 y= 4171750.00 Model = Cx1/SHORTZ
35 0.298E+03 0.597E+01 0.597E+01 x= 616350.00 y= 4171750.00 Model = Cx1/SHORTZ
36 0.207E+03 0.415E+01 0.415E+01 x= 616600.00 y= 4171750.00 Model = Cx1/SHORTZ
37 0.428E+03 0.856E+01 0.856E+01 x= 614600.00 y= 4172000.00 Model = ISCST
38 0.476E+03 0.952E+01 0.952E+01 x= 614850.00 y= 4172000.00 Model = ISCST
39 0.470E+03 0.939E+01 0.939E+01 x= 615100.00 y= 4172000.00 Model = ISCST
40 0.454E+03 0.907E+01 0.907E+01 x= 615350.00 y= 4172000.00 Model = ISCST
41 0.402E+03 0.805E+01 0.805E+01 x= 615600.00 y= 4172000.00 Model = ISCST
42 0.393E+03 0.786E+01 0.786E+01 x= 615850.00 y= 4172000.00 Model = Cx1/SHORTZ
43 0.315E+03 0.630E+01 0.630E+01 x= 616100.00 y= 4172000.00 Model = Cx1/SHORTZ
44 0.239E+03 0.477E+01 0.477E+01 x= 616350.00 y= 4172000.00 Model = Cx1/SHORTZ
45 0.191E+03 0.382E+01 0.382E+01 x= 616600.00 y= 4172000.00 Model = Cx1/SHORTZ
46 0.300E+03 0.601E+01 0.601E+01 x= 614600.00 y= 4172250.00 Model = ISCST
47 0.364E+03 0.728E+01 0.728E+01 x= 614850.00 y= 4172250.00 Model = ISCST
48 0.497E+03 0.994E+01 0.994E+01 x= 615100.00 y= 4172250.00 Model = ISCST
49 0.373E+03 0.746E+01 0.746E+01 x= 615350.00 y= 4172250.00 Model = ISCST
50 0.385E+03 0.771E+01 0.771E+01 x= 615600.00 y= 4172250.00 Model = Cx1/SHORTZ
51 0.321E+03 0.642E+01 0.642E+01 x= 615850.00 y= 4172250.00 Model = Cx1/SHORTZ
52 0.251E+03 0.501E+01 0.501E+01 x= 616100.00 y= 4172250.00 Model = Cx1/SHORTZ
53 0.208E+03 0.416E+01 0.416E+01 x= 616350.00 y= 4172250.00 Model = Cx1/SHORTZ
54 0.172E+03 0.345E+01 0.345E+01 x= 616600.00 y= 4172250.00 Model = Cx1/SHORTZ
55 0.241E+03 0.482E+01 0.482E+01 x= 614600.00 y= 4172500.00 Model = ISCST
56 0.300E+03 0.599E+01 0.599E+01 x= 614850.00 y= 4172500.00 Model = ISCST
57 0.297E+03 0.594E+01 0.594E+01 x= 615100.00 y= 4172500.00 Model = ISCST
58 0.294E+03 0.588E+01 0.588E+01 x= 615350.00 y= 4172500.00 Model = ISCST
59 0.307E+03 0.614E+01 0.614E+01 x= 615600.00 y= 4172500.00 Model = Cx1/SHORTZ
60 0.282E+03 0.563E+01 0.563E+01 x= 615850.00 y= 4172500.00 Model = Cx1/SHORTZ
61 0.221E+03 0.442E+01 0.442E+01 x= 616100.00 y= 4172500.00 Model = Cx1/SHORTZ
62 0.173E+03 0.346E+01 0.346E+01 x= 616350.00 y= 4172500.00 Model = Cx1/SHORTZ
63 0.145E+03 0.290E+01 0.290E+01 x= 616600.00 y= 4172500.00 Model = Cx1/SHORTZ
64 0.228E+03 0.456E+01 0.456E+01 x= 616170.00 y= 4172880.00 Model = Cx1/SHORTZ
65 0.135E+03 0.270E+01 0.270E+01 x= 612700.00 y= 4170900.00 Model = ISCST
66 0.135E+03 0.269E+01 0.269E+01 x= 612700.00 y= 4170800.00 Model = ISCST
67 0.143E+03 0.286E+01 0.286E+01 x= 612700.00 y= 4170700.00 Model = ISCST
68 0.143E+03 0.286E+01 0.286E+01 x= 612700.00 y= 4170600.00 Model = ISCST
69 0.139E+03 0.279E+01 0.279E+01 x= 612700.00 y= 4170500.00 Model = ISCST
70 0.138E+03 0.275E+01 0.275E+01 x= 612700.00 y= 4170400.00 Model = ISCST
71 0.236E+03 0.471E+01 0.471E+01 x= 612700.00 y= 4170300.00 Model = ISCST
72 0.362E+03 0.724E+01 0.724E+01 x= 612700.00 y= 4170200.00 Model = ISCST
73 0.376E+03 0.752E+01 0.752E+01 x= 612700.00 y= 4170100.00 Model = ISCST
74 0.171E+03 0.342E+01 0.342E+01 x= 615900.00 y= 4169300.00 Model = Cx1/SHORTZ
75 0.121E+03 0.242E+01 0.242E+01 x= 613450.00 y= 4172500.00 Model = ISCST
76 0.124E+03 0.249E+01 0.249E+01 x= 613450.00 y= 4172400.00 Model = ISCST
77 0.132E+03 0.264E+01 0.264E+01 x= 613450.00 y= 4172300.00 Model = ISCST
78 0.143E+03 0.286E+01 0.286E+01 x= 613450.00 y= 4172200.00 Model = ISCST

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infinal8678b.rmm

79	0.151E+03	0.302E+01	0.302E+01	x=	613450.00	y=	4172100.00	Model =	ISCST
80	0.163E+03	0.327E+01	0.327E+01	x=	613450.00	y=	4172000.00	Model =	ISCST
81	0.177E+03	0.354E+01	0.354E+01	x=	613450.00	y=	4171900.00	Model =	ISCST
82	0.186E+03	0.372E+01	0.372E+01	x=	613450.00	y=	4171800.00	Model =	ISCST
83	0.208E+03	0.416E+01	0.416E+01	x=	613450.00	y=	4171700.00	Model =	ISCST
84	0.223E+03	0.446E+01	0.446E+01	x=	613450.00	y=	4171600.00	Model =	ISCST
85	0.239E+03	0.478E+01	0.478E+01	x=	613450.00	y=	4171500.00	Model =	ISCST
86	0.249E+03	0.498E+01	0.498E+01	x=	613450.00	y=	4171400.00	Model =	ISCST
87	0.324E+03	0.648E+01	0.648E+01	x=	613450.00	y=	4171300.00	Model =	ISCST
88	0.291E+03	0.582E+01	0.582E+01	x=	613450.00	y=	4171200.00	Model =	ISCST
89	0.296E+03	0.591E+01	0.591E+01	x=	613450.00	y=	4171100.00	Model =	ISCST
90	0.300E+03	0.600E+01	0.600E+01	x=	613450.00	y=	4171000.00	Model =	ISCST
91	0.799E+02	0.160E+01	0.160E+01	x=	613000.00	y=	4172800.00	Model =	ISCST
92	0.872E+02	0.174E+01	0.174E+01	x=	613000.00	y=	4172600.00	Model =	ISCST
93	0.976E+02	0.195E+01	0.195E+01	x=	613000.00	y=	4172400.00	Model =	ISCST
94	0.107E+03	0.214E+01	0.214E+01	x=	613000.00	y=	4172200.00	Model =	ISCST
95	0.124E+03	0.248E+01	0.248E+01	x=	613000.00	y=	4172000.00	Model =	ISCST
96	0.137E+03	0.275E+01	0.275E+01	x=	613000.00	y=	4171800.00	Model =	ISCST
97	0.152E+03	0.304E+01	0.304E+01	x=	613000.00	y=	4171600.00	Model =	ISCST
98	0.210E+03	0.419E+01	0.419E+01	x=	613000.00	y=	4171400.00	Model =	ISCST
99	0.173E+03	0.346E+01	0.346E+01	x=	613000.00	y=	4171200.00	Model =	ISCST
100	0.175E+03	0.349E+01	0.349E+01	x=	613000.00	y=	4171000.00	Model =	ISCST
101	0.188E+03	0.376E+01	0.376E+01	x=	613000.00	y=	4170800.00	Model =	ISCST
102	0.220E+03	0.440E+01	0.440E+01	x=	613200.00	y=	4170800.00	Model =	ISCST
103	0.270E+03	0.540E+01	0.540E+01	x=	613400.00	y=	4170800.00	Model =	ISCST
104	0.343E+03	0.685E+01	0.685E+01	x=	613600.00	y=	4170800.00	Model =	ISCST
105	0.452E+03	0.903E+01	0.903E+01	x=	613800.00	y=	4170800.00	Model =	ISCST
106	0.942E+03	0.188E+02	0.188E+02	x=	614000.00	y=	4170800.00	Model =	ISCST
107	0.797E+03	0.159E+02	0.159E+02	x=	614200.00	y=	4170800.00	Model =	ISCST
108	0.104E+04	0.207E+02	0.207E+02	x=	614400.00	y=	4170800.00	Model =	ISCST
109	0.138E+04	0.277E+02	0.277E+02	x=	614600.00	y=	4170800.00	Model =	ISCST
110	0.430E+04	0.860E+02	0.860E+02	x=	614850.00	y=	4170800.00	Model =	Cx1/SHORTZ
111	0.252E+04	0.504E+02	0.504E+02	x=	615100.00	y=	4170800.00	Model =	Cx1/SHORTZ
112	0.137E+04	0.275E+02	0.275E+02	x=	615350.00	y=	4170800.00	Model =	Cx1/SHORTZ
113	0.837E+03	0.167E+02	0.167E+02	x=	615600.00	y=	4170800.00	Model =	Cx1/SHORTZ
114	0.548E+03	0.110E+02	0.110E+02	x=	615850.00	y=	4170800.00	Model =	Cx1/SHORTZ
115	0.332E+03	0.664E+01	0.664E+01	x=	613000.00	y=	4170400.00	Model =	ISCST
116	0.496E+03	0.992E+01	0.992E+01	x=	613200.00	y=	4170400.00	Model =	ISCST
117	0.401E+03	0.802E+01	0.802E+01	x=	613400.00	y=	4170400.00	Model =	ISCST
118	0.292E+03	0.585E+01	0.585E+01	x=	613600.00	y=	4170400.00	Model =	ISCST
119	0.360E+03	0.719E+01	0.719E+01	x=	613800.00	y=	4170400.00	Model =	ISCST
120	0.450E+03	0.900E+01	0.900E+01	x=	614000.00	y=	4170400.00	Model =	ISCST
121	0.515E+03	0.103E+02	0.103E+02	x=	614200.00	y=	4170400.00	Model =	ISCST
122	0.981E+03	0.196E+02	0.196E+02	x=	614400.00	y=	4170400.00	Model =	Cx1/SHORTZ
123	0.113E+04	0.226E+02	0.226E+02	x=	614600.00	y=	4170400.00	Model =	Cx1/SHORTZ
124	0.114E+04	0.227E+02	0.227E+02	x=	614850.00	y=	4170400.00	Model =	Cx1/SHORTZ
125	0.981E+03	0.196E+02	0.196E+02	x=	615100.00	y=	4170400.00	Model =	Cx1/SHORTZ
126	0.726E+03	0.145E+02	0.145E+02	x=	615350.00	y=	4170400.00	Model =	Cx1/SHORTZ
127	0.524E+03	0.105E+02	0.105E+02	x=	615600.00	y=	4170400.00	Model =	Cx1/SHORTZ
128	0.404E+03	0.808E+01	0.808E+01	x=	615850.00	y=	4170400.00	Model =	Cx1/SHORTZ
129	0.161E+02	0.322E+00	0.322E+00	x=	608000.00	y=	4166500.00	Model =	ISCST
130	0.183E+02	0.366E+00	0.366E+00	x=	611000.00	y=	4165500.00	Model =	Cx1/SHORTZ
131	0.192E+03	0.384E+01	0.384E+01	x=	613000.00	y=	4167500.00	Model =	Cx1/SHORTZ
132	0.387E+02	0.774E+00	0.774E+00	x=	615000.00	y=	4166500.00	Model =	Cx1/SHORTZ
133	0.180E+03	0.361E+01	0.361E+01	x=	616000.00	y=	4169500.00	Model =	Cx1/SHORTZ
134	0.224E+03	0.449E+01	0.449E+01	x=	616000.00	y=	4172500.00	Model =	Cx1/SHORTZ
135	0.568E+02	0.114E+01	0.114E+01	x=	614000.00	y=	4174500.00	Model =	ISCST
136	0.502E+02	0.100E+01	0.100E+01	x=	616000.00	y=	4175500.00	Model =	Cx1/SHORTZ
137	0.605E+02	0.121E+01	0.121E+01	x=	614000.00	y=	4177500.00	Model =	Cx1/SHORTZ
138	0.157E+02	0.313E+00	0.313E+00	x=	606000.00	y=	4174500.00	Model =	ISCST
139	0.388E+02	0.775E+00	0.775E+00	x=	609000.00	y=	4174500.00	Model =	ISCST
140	0.118E+03	0.236E+01	0.236E+01	x=	612000.00	y=	4174500.00	Model =	ISCST
141	0.156E+02	0.312E+00	0.312E+00	x=	609000.00	y=	4173500.00	Model =	ISCST
142	0.208E+02	0.415E+00	0.415E+00	x=	610000.00	y=	4175500.00	Model =	ISCST
143	0.417E+02	0.834E+00	0.834E+00	x=	610000.00	y=	4173500.00	Model =	ISCST
144	0.226E+02	0.452E+00	0.452E+00	x=	608000.00	y=	4177500.00	Model =	ISCST
145	0.272E+02	0.544E+00	0.544E+00	x=	611000.00	y=	4177500.00	Model =	ISCST
146	0.387E+02	0.774E+00	0.774E+00	x=	606000.00	y=	4171500.00	Model =	ISCST
147	0.308E+02	0.615E+00	0.615E+00	x=	606000.00	y=	4172500.00	Model =	ISCST
148	0.224E+02	0.448E+00	0.448E+00	x=	607000.00	y=	4172500.00	Model =	ISCST
149	0.469E+02	0.937E+00	0.937E+00	x=	607000.00	y=	4171500.00	Model =	ISCST
150	0.145E+02	0.291E+00	0.291E+00	x=	608000.00	y=	4172500.00	Model =	ISCST
151	0.580E+02	0.116E+01	0.116E+01	x=	608000.00	y=	4171500.00	Model =	ISCST
152	0.325E+02	0.650E+00	0.650E+00	x=	609000.00	y=	4172500.00	Model =	ISCST
153	0.493E+02	0.985E+00	0.985E+00	x=	610000.00	y=	4172500.00	Model =	ISCST
154	0.959E+02	0.192E+01	0.192E+01	x=	610000.00	y=	4171500.00	Model =	ISCST
155	0.149E+03	0.298E+01	0.298E+01	x=	612000.00	y=	4171500.00	Model =	ISCST
156	0.163E+03	0.326E+01	0.326E+01	x=	611000.00	y=	4169500.00	Model =	ISCST
157	0.933E+02	0.187E+01	0.187E+01	x=	612000.00	y=	4170500.00	Model =	ISCST
158	0.398E+02	0.796E+00	0.796E+00	x=	611000.00	y=	4172500.00	Model =	ISCST
159	0.942E+02	0.188E+01	0.188E+01	x=	613000.00	y=	4172500.00	Model =	ISCST
160	0.431E+02	0.862E+00	0.862E+00	x=	612000.00	y=	4173500.00	Model =	ISCST
161	0.200E+02	0.400E+00	0.400E+00	x=	608000.00	y=	4169500.00	Model =	ISCST
162	0.261E+02	0.522E+00	0.522E+00	x=	609000.00	y=	4169500.00	Model =	ISCST
163	0.453E+02	0.905E+00	0.905E+00	x=	610000.00	y=	4169500.00	Model =	ISCST
164	0.166E+02	0.332E+00	0.332E+00	x=	608000.00	y=	4170500.00	Model =	ISCST
165	0.263E+02	0.526E+00	0.526E+00	x=	609000.00	y=	4170500.00	Model =	ISCST
166	0.863E+01	0.173E+00	0.173E+00	x=	606000.00	y=	4170500.00	Model =	ISCST

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167	0.127E+02	0.254E+00	0.254E+00	x=	607000.00	y=	4170500.00	Model =	ISCST
168	0.279E+02	0.558E+00	0.558E+00	x=	606000.00	y=	4169500.00	Model =	ISCST
169	0.252E+02	0.505E+00	0.505E+00	x=	607000.00	y=	4169500.00	Model =	ISCST
170	0.101E+02	0.203E+00	0.203E+00	x=	606000.00	y=	4168500.00	Model =	ISCST
171	0.667E+03	0.133E+02	0.133E+02	x=	614600.00	y=	4170150.00	Model =	Cx1/SHORTZ
172	0.657E+03	0.131E+02	0.131E+02	x=	614850.00	y=	4170150.00	Model =	Cx1/SHORTZ
173	0.616E+03	0.123E+02	0.123E+02	x=	615100.00	y=	4170150.00	Model =	Cx1/SHORTZ
174	0.518E+03	0.104E+02	0.104E+02	x=	615350.00	y=	4170150.00	Model =	Cx1/SHORTZ
175	0.434E+03	0.868E+01	0.868E+01	x=	614850.00	y=	4169900.00	Model =	Cx1/SHORTZ
176	0.419E+03	0.838E+01	0.838E+01	x=	615100.00	y=	4169900.00	Model =	Cx1/SHORTZ
177	0.378E+03	0.755E+01	0.755E+01	x=	615350.00	y=	4169900.00	Model =	Cx1/SHORTZ
178	0.181E+03	0.362E+01	0.362E+01	x=	615900.00	y=	4172900.00	Model =	Cx1/SHORTZ
179	0.139E+03	0.278E+01	0.278E+01	x=	616400.00	y=	4172900.00	Model =	Cx1/SHORTZ
180	0.115E+03	0.229E+01	0.229E+01	x=	616700.00	y=	4172900.00	Model =	Cx1/SHORTZ
181	0.982E+02	0.196E+01	0.196E+01	x=	617000.00	y=	4172900.00	Model =	Cx1/SHORTZ
182	0.161E+05	0.322E+03	0.322E+03	x=	614900.00	y=	4171050.00	Model =	Cx1/SHORTZ
183	0.792E+04	0.158E+03	0.158E+03	x=	615000.00	y=	4171050.00	Model =	Cx1/SHORTZ
184	0.468E+04	0.936E+02	0.936E+02	x=	615100.00	y=	4171050.00	Model =	Cx1/SHORTZ
185	0.310E+04	0.620E+02	0.620E+02	x=	615200.00	y=	4171050.00	Model =	Cx1/SHORTZ
186	0.214E+04	0.427E+02	0.427E+02	x=	615300.00	y=	4171050.00	Model =	Cx1/SHORTZ
187	0.262E+05	0.524E+03	0.524E+03	x=	614900.00	y=	4171150.00	Model =	Cx1/SHORTZ
188	0.102E+05	0.203E+03	0.203E+03	x=	615000.00	y=	4171150.00	Model =	Cx1/SHORTZ
189	0.538E+04	0.108E+03	0.108E+03	x=	615100.00	y=	4171150.00	Model =	Cx1/SHORTZ
190	0.332E+04	0.664E+02	0.664E+02	x=	615200.00	y=	4171150.00	Model =	Cx1/SHORTZ
191	0.227E+04	0.455E+02	0.455E+02	x=	615300.00	y=	4171150.00	Model =	Cx1/SHORTZ
192	0.309E+04	0.617E+02	0.617E+02	x=	614900.00	y=	4171250.00	Model =	ISCST
193	0.222E+04	0.444E+02	0.444E+02	x=	615000.00	y=	4171250.00	Model =	ISCST
194	0.326E+04	0.653E+02	0.653E+02	x=	615200.00	y=	4171250.00	Model =	Cx1/SHORTZ
195	0.223E+04	0.445E+02	0.445E+02	x=	615300.00	y=	4171250.00	Model =	Cx1/SHORTZ
196	0.218E+04	0.437E+02	0.437E+02	x=	614900.00	y=	4171350.00	Model =	ISCST
197	0.382E+04	0.764E+02	0.764E+02	x=	615000.00	y=	4171350.00	Model =	ISCST
198	0.150E+04	0.299E+02	0.299E+02	x=	615100.00	y=	4171350.00	Model =	ISCST
199	0.122E+04	0.244E+02	0.244E+02	x=	615200.00	y=	4171350.00	Model =	ISCST
200	0.990E+03	0.198E+02	0.198E+02	x=	615300.00	y=	4171350.00	Model =	ISCST
201	0.158E+04	0.315E+02	0.315E+02	x=	614900.00	y=	4171450.00	Model =	ISCST
202	0.143E+04	0.287E+02	0.287E+02	x=	615000.00	y=	4171450.00	Model =	ISCST
203	0.267E+04	0.534E+02	0.534E+02	x=	615100.00	y=	4171450.00	Model =	ISCST
204	0.223E+04	0.446E+02	0.446E+02	x=	615200.00	y=	4171450.00	Model =	ISCST
205	0.876E+03	0.175E+02	0.175E+02	x=	615300.00	y=	4171450.00	Model =	ISCST

APPENDIX E
AIRDOS-DARTAB Results

**AIRDOS-DARTAB RESULTS
CANCER RISK AND BURDEN**

Q Q Q Q Q Q
Q Q Q Q Q Q
Q Q Q Q Q Q

E-3

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ORMAL DATE 10/1/69 4 EMISSIONS 10/69

EAD= 1
RP= 1

- 0 INDICATES THE TABLE WILL NOT BE PRINTED
- 1 INDICATES INDIVIDUAL VALUES WILL BE PRINTED
- 2 INDICATES MEAN INDIVIDUAL VALUES WILL BE PRINTED
- 3 INDICATES COLLECTIVE VALUES WILL BE PRINTED
- 4 INDICATES ALL OF THE ABOVE WILL BE PRINTED

QUANTITY	TABLE NO.	1	2	3	4	5	6	7
DOSE RATES		0	0	0	0	0	0	0
HEALTH RISK		0	0	0	0	0	0	0
RISK EQUIVALENT FACTOR		0	0	0	0	0	0	0

VALUES FOR THE SELECTED INDIVIDUAL WILL BE DONE FOR THE LOCATION HAVING 100.00 % OF THE HIGHEST TOTAL RISK.

DOSE RATE TABLES COMBINING LOW AND HIGH LET WILL BE PRINTED.
HEALTH RISK TABLES COMBINING LOW AND HIGH LET WILL BE PRINTED.

THE GROUND SURFACE CORRECTION FACTOR IS 0.50

THERE ARE 11 ORGANS TO BE OUTPUT. THEY ARE:

ORGAN	TIME	ORGAN	TIME	ORGAN	TIME
MAR	70.	ENDOST	70.	THYROID	70.
LEAST	70.	PUL*	70.	ST WALL	70.
IT WALL	70.	LIVER	70.	PANCREAS	70.
KIDNEYS	70.	OTHER	70.		

ORGAN	DOSE EQUIVALENT FACTORS
	LOW LET HIGH LET
MAR	1.00000 20.0000
IDOST	1.00000 20.0000
THYROID	1.00000 20.0000
LEAST	1.00000 20.0000
PUL*	1.00000 20.0000
WALL	1.00000 20.0000
IT WALL	1.00000 20.0000
LIVER	1.00000 20.0000
PANCREAS	1.00000 20.0000
KIDNEYS	1.00000 20.0000
OTHER	1.00000 20.0000

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THERE ARE 11 CANCERS TO BE OUTPUT.

1 INDICATES ABSOLUTE RISK; A 2 IS RELATIVE RISK.

CANCER	CANCER	CANCER	CANCER
LEUKEMIA 1. BONE	1. THYROID	1. BREAST	1.
G 1. STOMACH	1. COLON	1. LIVER	1.
PANCREAS 1. URINARY	1. OTHER		

LETIC DOSES ARE PRINTED FOR:
STES OVARIES AVERAGE

RE ARE FRACTIONS CLIMES TO RE OUTPUT.
CLIDE PARTICLE SIZE CLEARANCE CLASS

4	0.00000	*	0.00000
	0.00000	*	0.00000
25	1.00000	D	0.00000
31	1.00000	D	0.00000
2	1.00000	D	0.00000
5	1.00000	D	0.00000

G.I. ABSORPTION FRACTION

SI	ULI	LLI
0.00000	0.00000	0.00000
0.00000	0.00000	0.00000
0.00000	0.00000	0.00000
0.00000	0.00000	0.00000
0.00000	0.00000	0.00000
0.00000	0.00000	0.00000
0.10000	0.00000	0.00000

LOCATION TO CLIMES TO RE OUTPUT FOR:
LIDE ORGAL PATHWAY QUANTITY LET
OR CLIMES

UM	SUM	7	2	1
	SUM	7	1	1
	SUM	1	1	1
	SUM	2	1	1
	SUM	6	1	1
1	SUM	5	3	1

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LOCATION FOR THE SELECTED INDIVIDUAL EXPOSURE IS 200 METERS END FROM THE SOURCE.
 : LIFETIME AVERAGE CANCER RISK IS 3.17×10^{-7} .

SAVING WEIGHTING FACTORS

SAF	FACTOR	PATHWAYS
IAP	0.10000	1 2 3 4
DOST	0.00000	1 2 3 4
IRGIB	0.00000	1 2 3 4
EAST	0.10000	1 2 3 4
JL*	0.00000	1 2 3 4
WALL	0.00000	1 2 3 4
T WALL	0.00000	1 2 3 4
VER	0.00000	1 2 3 4
INCREAS	0.00000	1 2 3 4
DNFYS	0.00000	1 2 3 4
THER	0.00000	1 2 3 4

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*** SELECTED INDIVIDUAL ***

DOSE RATES:

ORGANS:	R MAR OTHER	ENDOST WT.SUM	THYROID	BREAST	*PUL*	S WALL	INT WALL	LIVER	PANCREAS	KIDNEYS
LOW LET (MRAD/Y)	3.61E-02 8.21E-03	4.92E-02 2.17E-02	7.22E-02	1.15E-02	1.20E-02	1.07E-02	3.87E-02	8.80E-03	8.21E-03	8.22E-03
HIGH LET (MRAD/Y)	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQUIVALENT (MREM/Y)	3.61E-02 8.21E-03	4.92E-02 2.17E-02	7.22E-02	1.15E-02	1.20E-02	1.07E-02	3.87E-02	8.80E-03	8.21E-03	8.22E-03

GONADAL DOSES:

GONADS:	TESTES	OVARIES	AVERAGE
LOW LET (MRAD)	2.06E-01	2.07E-01	2.07E-01
HIGH LET (MRAD)	0.00E+00	0.00E+00	0.00E+00
DOSE EQUIVALENT (MREM)	2.06E-01	2.07E-01	2.07E-01

*** MEAN INDIVIDUAL ***

DOSE RATE:

E-7

ORGANS:	R MAR OTHER	ENDOST WT.SUM	THYROID	BREAST	*PUL*	S WALL	INT WALL	LIVER	PANCREAS	KIDNEYS
LOW LET (MRAD/Y)	4.72E-03 1.01E-03	6.24E-03 2.86E-03	1.01E-02	1.41E-03	1.46E-03	1.37E-03	5.62E-03	1.08E-03	1.01E-03	1.02E-03
HIGH LET (MRAD/Y)	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQUIVALENT (MREM/Y)	4.72E-03 1.01E-03	6.24E-03 2.86E-03	1.01E-02	1.41E-03	1.46E-03	1.37E-03	5.62E-03	1.08E-03	1.01E-03	1.02E-03

GONADAL DOSES:

GONADS:	TESTES	OVARIES	AVERAGE
LOW LET (MRAD)	2.57E-02	2.58E-02	2.58E-02
HIGH LET (MRAD)	0.00E+00	0.00E+00	0.00E+00
DOSE EQUIVALENT (MREM)	2.57E-02	2.58E-02	2.58E-02

*** COLLECTIVE POPULATION ***

DOSE RATE:

ORGANS:	R MAR OTHER	ENDOST WT.SUM	THYROID	BREAST	*PUL*	S WALL	INT WALL	LIVER	PANCREAS	KIDNEYS
LOW LET (PERSON RAD/Y)	1.51E-03 3.25E-04	2.00E-03 9.15E-04	3.22E-03	4.50E-04	4.67E-04	4.38E-04	1.80E-03	3.47E-04	3.25E-04	3.25E-04
HIGH LET (PERSON RAD/Y)	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQ. (PERSON REM/Y)	1.51E-03 3.25E-04	2.00E-03 9.15E-04	3.22E-03	4.50E-04	4.67E-04	4.38E-04	1.80E-03	3.47E-04	3.25E-04	3.25E-04

GONADAL DOSES:

GONADS:	TESTES	OVARIES	AVERAGE
LOW LET (PERSON RAD)	8.23E-03	8.25E-03	8.24E-03

NORMAL BWTF INGESTION & EXPOSURE 10/89

PATHWAY DOSE/EXPOSURE SUMMARY

*** SELECTED INDIVIDUAL ***

DOSE RATES:

WEIGHTED SUMS OF ORGAN DOSE RATES

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERSION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
LOW LET (MRAD/Y)		1.60E-02	5.64E-03	2.55E-06	2.52E-05	2.16E-02	2.78E-05	2.17E-02
HIGH LET (MPAD/Y)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQUIVALENT (REM/Y)		1.60E-02	5.64E-03	2.55E-06	2.52E-05	2.16E-02	2.78E-05	2.17E-02

AVERAGE GONADAL DOSES:

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERSION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
LOW LET (MRAD)		1.67E-01	3.83E-02	8.47E-05	8.77E-04	2.06E-01	9.61E-04	2.07E-01
HIGH LET (MPAD)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQUIVALENT (REM)		1.67E-01	3.83E-02	8.47E-05	8.77E-04	2.06E-01	9.61E-04	2.07E-01

*** MEAN INDIVIDUAL ***

DOSE RATES:

WEIGHTED SUMS OF ORGAN DOSE RATES

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERSION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
LOW LET (MRAD/Y)		2.19E-03	6.64E-04	3.34E-07	3.86E-06	2.85E-03	4.17E-06	2.86E-03
HIGH LET (MPAD/Y)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQUIVALENT (REM/Y)		2.19E-03	6.64E-04	3.34E-07	3.86E-06	2.85E-03	4.17E-06	2.86E-03

AVERAGE GONADAL DOSES:

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERSION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
LOW LET (MRAD)		2.11E-02	4.51E-03	9.50E-06	1.34E-04	2.56E-02	1.44E-04	2.58E-02
HIGH LET (MPAD)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQUIVALENT (REM)		2.11E-02	4.51E-03	9.50E-06	1.34E-04	2.56E-02	1.44E-04	2.58E-02

*** COLLECTIVE POPULATION ***

DOSE RATES:

WEIGHTED SUMS OF ORGAN DOSE RATES

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERSION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
LOW LET (PERSON RAD/Y)		7.31E-04	2.13E-04	9.72E-08	1.4E-06	5.13E-04	1.33E-06	9.15E-04
HIGH LET (PERSON MPAD/Y)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE E. (PERSON REM/Y)		7.31E-04	2.13E-04	9.72E-08	1.4E-06	5.13E-04	1.33E-06	9.15E-04

AVERAGE GONADAL DOSES:

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERSION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
LOW LET (PERSON RAD)		6.75E-03	1.44E-03	3.15E-06	4.30E-05	8.19E-03	4.62E-05	8.24E-03
HIGH LET (PERSON MPAD)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE E. (PERSON RAD)		6.75E-03	1.44E-03	3.15E-06	4.30E-05	8.19E-03	4.62E-05	8.24E-03

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*** SELECTED INDIVIDUAL ***

DOSE RATES:

EIGHTED SUMS OF ORGAN DOSE RATES

NUCLIDES:	C-14	H-3	I-125	I-131	P-32	S-35	TOTAL
LOW LET (MRAD/Y)	5.92E-03	2.03E-03	4.77E-03	2.10E-03	5.86E-03	1.42E-03	2.17E-02
HIGH LET (MRAD/Y)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQUIVALENT (REM/Y)	5.92E-03	2.03E-03	4.77E-03	2.10E-03	5.86E-03	1.42E-03	2.17E-02

AVERAGE GONADAL DOSES:

NUCLIDES:	C-14	H-3	I-125	I-131	P-32	S-35	TOTAL
LOW LET (MRAD)	8.41E-02	5.91E-02	3.87E-04	7.63E-04	5.25E-02	9.70E-03	2.07E-01
HIGH LET (MRAD)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQUIVALENT (REM)	8.41E-02	5.91E-02	3.87E-04	7.63E-04	5.25E-02	9.70E-03	2.07E-01

*** MEAN INDIVIDUAL ***

DOSE RATES:

EIGHTED SUMS OF ORGAN DOSE RATES

NUCLIDES:	C-14	H-3	I-125	I-131	P-32	S-35	TOTAL
LOW LET (MRAD/Y)	6.99E-04	2.40E-04	6.71E-04	2.76E-04	8.02E-04	2.10E-04	2.86E-03
HIGH LET (MRAD/Y)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQUIVALENT (REM/Y)	6.99E-04	2.40E-04	6.71E-04	2.76E-04	8.02E-04	2.10E-04	2.86E-03

AVERAGE GONADAL DOSES:

NUCLIDES:	C-14	H-3	I-125	I-131	P-32	S-35	TOTAL
LOW LET (MRAD)	9.93E-03	6.99E-03	5.77E-05	1.13E-04	7.32E-03	1.34E-03	2.58E-02
HIGH LET (MRAD)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQUIVALENT (REM)	9.93E-03	6.99E-03	5.77E-05	1.13E-04	7.32E-03	1.34E-03	2.58E-02

* COLLECTIVE POPULATION ***

DOSE RATES:

EIGHTED SUMS OF ORGAN DOSE RATES

NUCLIDES:	C-14	H-3	I-125	I-131	P-32	S-35	TOTAL
LOW LET (MRAD/Y)	2.24E-04	7.67E-05	2.02E-04	8.15E-05	2.57E-04	6.73E-05	9.15E-04
HIGH LET (MRAD/Y)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQ. (PERMANENT Y)	2.24E-04	7.67E-05	2.02E-04	8.15E-05	2.57E-04	6.73E-05	9.15E-04

AVERAGE GONADAL DOSES:

NUCLIDES:	C-14	H-3	I-125	I-131	P-32	S-35	TOTAL
LOW LET (PERMANENT Y)	3.14E-03	2.24E-03	1.97E-05	3.61E-05	2.34E-03	4.30E-04	8.24E-03
HIGH LET (PERMANENT Y)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DOSE EQ. (PERMANENT Y)	3.14E-03	2.24E-03	1.97E-05	3.61E-05	2.34E-03	4.30E-04	8.24E-03

RMAL LIFE 10/10/80
RISK/RISK EQUIVALENT SUMMARY

* SELECTED INDIVIDUAL ***

FETAL FATAL CANCER RISK:

	CANCERS:	LEUKEMIA	BONE	THYROID	BREAST	LUNG	STOMACH	BOWEL	LIVER	PANCREAS	URINARY
		OTHER	TOTAL								
LET		1.07E-07	8.45E-09	2.74E-08	2.97E-08	4.94E-08	1.78E-08	3.00E-08	1.49E-08	9.57E-09	4.05E-09
		1.86E-08	3.17E-07								
SH LET		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
		0.00E+00	0.00E+00								
TOTAL		1.07E-07	8.45E-09	2.74E-08	2.97E-08	4.94E-08	1.78E-08	3.00E-08	1.49E-08	9.57E-09	4.05E-09
		1.86E-08	3.17E-07								

CRAGE LIFE 10/10/80 PER PREMATURE DEATH:

	CANCERS:	LEUKEMIA	BONE	THYROID	BREAST	LUNG	STOMACH	BOWEL	LIVER	PANCREAS	URINARY
		OTHER	TOTAL								
LET (YR)		3.16E+01	2.93E+01	2.89E+01	2.15E+01	2.30E+01	2.14E+01	2.14E+01	2.14E+01	2.14E+01	2.13E+01
		2.14E+01	2.59E+01								
SH LET (YR)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
		0.00E+00	0.00E+00								
IRINED (YR)		3.16E+01	2.93E+01	2.89E+01	2.15E+01	2.30E+01	2.14E+01	2.14E+01	2.14E+01	2.14E+01	2.13E+01
		2.14E+01	2.59E+01								

FATAL CANCER RISK EQUIVALENT:

	CANCERS:	LEUKEMIA	BONE	THYROID	BREAST	LUNG	STOMACH	BOWEL	LIVER	PANCREAS	URINARY
		OTHER	TOTAL								
EM/YR)		3.61E-02	4.91E-02	1.40E-02	1.15E-02	1.20E-02	1.07E-02	3.87E-02	8.81E-03	8.24E-03	8.22E-03
		8.24E-03	1.60E-02								

LE BODY FATAL CANCER RISK EQ(MREM/YR)

1.60E-02

GENETIC RISKS:

LET (EFFECTS/BIRTH)	5.37E-08
SH LET (EFFECTS/BIRTH)	0.00E+00
IRINED (EFFECTS/BIRTH)	5.37E-08

GENETIC RISK EQUIVALENT:

EM/YR)	6.89E-03

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AVAILABLE COPY

E-10

MAL DWIF FACILITY RADIATION EMISSIONS 10/89
RISK/RISK EQUIVALENT SUMMARY

MEAN INDIVIDUAL ***

ETIMF FATAL CANCER RISK:

	CANCERS:	LEUKEMIA OTHER	BONE TOTAL	THYROID	BREAST	LUNG	STOMACH	BOWEL	LIVER	PANCREAS	URINARY
LET		1.40E-08 2.29E-09	1.07E-09 4.09E-09	3.61E-09	3.62E-09	6.02E-09	2.28E-09	4.36E-09	1.84E-09	1.18E-09	5.01E-10
WH LET		0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL		1.40E-08 2.29E-09	1.07E-09 4.09E-09	3.61E-09	3.62E-09	6.02E-09	2.28E-09	4.36E-09	1.84E-09	1.18E-09	5.01E-10

AVERAGE LIFE LONG PER PREMATURE DEATH:

	CANCERS:	LEUKEMIA OTHER	BONE TOTAL	THYROID	BREAST	LUNG	STOMACH	BOWEL	LIVER	PANCREAS	URINARY
LET (YR)		3.16E+01 2.14E+01	2.93E+01 2.60E+01	2.89E+01	2.15E+01	2.30E+01	2.14E+01	2.14E+01	2.14E+01	2.14E+01	2.13E+01
WH LET (YR)		0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MBINED (YR)		3.16E+01 2.14E+01	2.93E+01 2.60E+01	2.89E+01	2.15E+01	2.30E+01	2.14E+01	2.14E+01	2.14E+01	2.14E+01	2.13E+01

TOTAL CANCER RISK EQUIVALENT:

	CANCERS:	LEUKEMIA OTHER	BONE TOTAL	THYROID	BREAST	LUNG	STOMACH	BOWEL	LIVER	PANCREAS	URINARY
(EM/YR)		4.71E-03 1.02E-03	6.24E-03 2.06E-03	1.84E-03	1.41E-03	1.46E-03	1.37E-03	5.62E-03	1.09E-03	1.02E-03	1.02E-03

DOLE BODY FATAL CANCER RISK (G(MPEM/YR)

2.06E-03

GENETIC RISKS:

WH LET (EFFECTS/BIRTH)	6.70E-09
WH LET (EFFECTS/BIRTH)	0.00E+00
MBINED (EFFECTS/BIRTH)	6.70E-09

GENETIC RISK EQUIVALENT:

(EM/YR) 8.52E-14

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RMAL DWTI INCINERATOR 6 EMISSIONS 10/89
RISK/RISK EQUIVALENT SUMMARY

* COLLECTIVE POPULATION ***

COLLECTIVE FATAL CANCER RISK:

CANCERS:	LEUKEMIA OTHER	BONE TOTAL	THYROID	BREAST	LUNG	STOMACH	BOWEL	LIVER	PANCREAS	URINARY
LOW LET(EFFECTS/YR)	6.34E-08 1.04E-08	4.85E-09 1.85E-07	1.63E-08	1.64E-08	2.72E-08	1.03E-08	1.97E-08	8.31E-09	5.35E-09	2.26E-09
HIGH LET(EFFECTS/YR)	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL (DEATHS/YR)	6.34E-08 1.04E-08	4.85E-09 1.85E-07	1.63E-08	1.64E-08	2.72E-08	1.03E-08	1.97E-08	8.31E-09	5.35E-09	2.26E-09

FATAL CANCER RISK EQUIVALENT:

CANCERS:	LEUKEMIA OTHER	BONE TOTAL	THYROID	BREAST	LUNG	STOMACH	BOWEL	LIVER	PANCREAS	URINARY
PERSON REM/YR	1.51E-03 3.26E-04	2.00E-03 6.58E-04	5.89E-04	4.50E-04	4.67E-04	4.38E-04	1.80E-03	3.47E-04	3.26E-04	3.25E-04

WHOLE BODY FATAL CANCER RISK EQ (PERSON REM/YR)

6.58E-04

GENETIC RISKS:

LOW LET(EFFECTS/YR)	3.03E-08
HIGH LET(EFFECTS/YR)	0.00E+00
COMBINED(EFFECTS/YR)	3.03E-08

GENETIC RISK EQUIVALENT:

PERSON REM/YR	2.75E-04

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AVAILABLE COPY

NORMAL DUTY: 1. INGESTION & EMISSIONS 1 / 89
 PATHWAY RISK/RISK EQUIVALENT SUMMARY

*** SELECTED INDIVIDUAL ***

LIFETIME FATAL CANCER RISK:

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERSION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
LOW LET		2.45E-07	7.17E-08	5.17E-11	5.01E-10	3.17E-07	5.52E-10	3.17E-07
HIGH LET		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL		2.45E-07	7.17E-08	5.17E-11	5.01E-10	3.17E-07	5.52E-10	3.17E-07

FATAL CANCER RISK EQUIVALENT:

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERSION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
(MREM/YR)		1.23E-02	3.61E-03	2.55E-06	2.52E-05	1.19E-02	2.78E-05	1.60E-02

GENETIC RISKS:

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERSION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
LOW LET (EFFECT/BIRTH)		4.35E-08	9.95E-09	2.20E-11	2.28E-10	5.35E-08	2.50E-10	5.37E-08
HIGH LET (EFFECT/BIRTH)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
COMBINED (EFFECT/BIRTH)		4.35E-08	9.95E-09	2.20E-11	2.28E-10	5.35E-08	2.50E-10	5.37E-08

GENETIC RISK EQUIVALENT:

(MREM/YR)		5.58E-03	1.28E-03	2.82E-06	2.92E-05	6.85E-03	3.20E-05	6.89E-03

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REPRODUCED FROM BEST
 AVAILABLE COPY

NORMAL DWTI INCINERATOR 6 EMISSIONS 10/89
PATHWAY RISK/RISK EQUIVALENT SUMMARY

***MEAN INDIVIDUAL ***

LIFETIME FATAL CANCER RISK:

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERISION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
LOW LET		3.23E-08	8.44E-09	6.04E-12	7.69E-11	4.07E-08	8.29E-11	4.08E-08
HIGH LET		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL		3.23E-08	8.44E-09	6.04E-12	7.69E-11	4.07E-08	8.29E-11	4.08E-08

FATAL CANCER RISK EQUIVALENT:

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERISION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
(MREM/YR)		1.63E-03	4.25E-04	3.04E-07	3.87E-06	2.05E-03	4.18E-06	2.06E-03

GENETIC RISKS:

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERISION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
LOW LET (EFFECT/2 BIRTH)		5.49E-09	1.17E-09	2.55E-12	3.50E-11	6.66E-09	3.76E-11	6.70E-09
HIGH LET (EFFECT/2 BIRTH)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
COMBINED (EFFECT/2 BIRTH)		5.49E-09	1.17E-09	2.55E-12	3.50E-11	6.66E-09	3.76E-11	6.70E-09

GENETIC RISK EQUIVALENT:

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERISION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
(MREM/YR)		7.93E-04	1.50E-04	3.37E-07	4.48E-06	8.54E-04	4.82E-06	8.58E-04

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*** COLLECTIVE REGULATION ***

COLLECTIVE FATAL CANCER RISK:

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERSION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
LOW LET (DEATHS/YR)		1.46E-07	3.82E-08	2.70E-11	3.48E-10	1.44E-07	3.75E-10	1.85E-07
HIGH LET (DEATHS/YR)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL (DEATHS/YR)		1.46E-07	3.82E-08	2.70E-11	3.48E-10	1.44E-07	3.75E-10	1.85E-07

FATAL CANCER RISK EQUIVALENT:

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERSION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
(PERSON REM/YR)		5.20E-04	1.36E-04	9.74E-08	1.24E-06	6.56E-04	1.34E-06	6.58E-04
WHOLE BODY RISK (PERSON REM/YR) FROM ALL EXPOSURES						6.58E-04		

GENETIC RISKS (PERSON REM/YR):

	PATHWAYS:	INGESTION	INHALATION	AIR IMMERSION	GROUND SURFACE	INTERNAL	EXTERNAL	TOTAL
LOW LET (EFFECT/YR)		2.44E-08	5.30E-09	1.17E-11	1.58E-10	3.01E-08	1.70E-10	3.03E-08
HIGH LET (EFFECT/YR)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
COMBINED (EFFECT/YR)		2.44E-08	5.30E-09	1.17E-11	1.58E-10	3.01E-08	1.70E-10	3.03E-08

GENETIC RISK EQUIVALENT:

(PERSON REM/YR)		2.75E-04	4.81E-05	1.06E-07	1.43E-06	2.73E-04	1.54E-06	2.75E-04

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NUCLIDE RISK/RISK EQUIVALENT SUMMARY

*** SELECTED INDIVIDUAL ***

IFETINE FATAL CANCER RISK:

	NUCLIDES:	C-14	H-3	I-125	I-131	I-132	S-35	TOTAL
LOW LET		1.19E-07	4.02E-08	8.80E-09	4.78E-09	1.16E-07	2.83E-08	3.17E-07
HIGH LET		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL		1.19E-07	4.02E-08	8.80E-09	4.78E-09	1.16E-07	2.83E-08	3.17E-07

FATAL CANCER RISK EQUIVALENT:

	NUCLIDES:	C-14	H-3	I-125	I-131	I-132	S-35	TOTAL
MREM/YR		5.92E-03	2.03E-03	4.41E-04	1.41E-04	5.85E-03	1.43E-03	1.60E-02

GENETIC RISK:

	NUCLIDES:	C-14	H-3	I-125	I-131	I-132	S-35	TOTAL
LOW LET (EFFECT/BIRTH)		2.15E-08	1.54E-08	3.00E-11	1.98E-10	1.37E-08	2.52E-09	5.37E-08
HIGH LET (EFFECT/BIRTH)		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
COMBINED (EFFECT/BIRTH)		2.15E-08	1.54E-08	3.00E-11	1.98E-10	1.37E-08	2.52E-09	5.37E-08

GENETIC RISK EQUIVALENT:

MREM/YR		2.80E-03	1.97E-03	1.20E-05	1.54E-05	1.75E-03	3.23E-04	6.89E-03

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INFETION FATAL TO CER DISC:

TOTAL CANCER RISK EQUIVALENT:

GENETIC RISKS:

NETIC RISK EQUIVALENT:

REM/YR)	3.31E-04	2.33E-04	1.92E-06	3.76E-06	2.44E-04	4.48E-05	8.58E-04

RMAL RITE IN INDICATOR 5 EMISSIONS 10/84
NUCLEIDE RISK/RISK EQUIVALENT SUMMARY

• COLLECTIVE POPULATION ***

COLLECTIVE FATAL CANCER RISK:

	NUCLIDES: C-14	H-3	I-125	I-131	P-32	S-35	TOTAL
1. LET(EFFECTS/YR)	6.35E-07	2.15E-08	5.84E-09	2.86E-09	7.19E-08	1.89E-08	1.85E-07
SH. LET(EFFECTS/YR)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL (EFFECTS/YR)	6.35E-07	2.15E-08	5.84E-09	2.86E-09	7.19E-08	1.89E-08	1.85E-07
FATAL FATAL CANCER RISK FROM ALL EXPOSURES				1.85E-07			

FATAL CANCER RISK EQUIVALENT:

	NUCLIDES: C-14	H-3	I-125	I-131	P-32	S-35	TOTAL
PERSON REM/YR	2.26E-04	7.67E-05	2.04E-05	1.02E-05	2.56E-04	6.73E-05	6.58E-04

GENETIC RISKS:

	NUCLIDES: C-14	H-3	I-125	I-131	P-32	S-35	TOTAL
1. LET(EFFECTS/YR)	1.17E-08	8.22E-09	6.75E-11	1.33E-10	8.60E-09	1.58E-09	3.03E-08
SH. LET(EFFECTS/YR)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
IRINDG(EFFECTS/YR)	1.17E-08	8.22E-09	6.75E-11	1.33E-10	8.60E-09	1.58E-09	3.03E-08

GENETIC RISK EQUIVALENT:

	NUCLIDES: C-14	H-3	I-125	I-131	P-32	S-35	TOTAL
PERSON REM/YR	1.06E-04	7.46E-05	6.14E-07	1.20E-06	7.81E-05	1.43E-05	2.75E-04

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AVAILABLE COPY

NORMAL SWIF INCINERATOR EMISSIONS 1/789
INDIVIDUAL DOSE EW. RATE(MREM/YEAR)

RADIONUCLIDE : SUM
ORGAN/CANCER : WT. SUM
PATHWAY : ALL

CTIONS:	ENE	NE	EDE	E	ESE	SE	ESE	
STANCE								
ETERS):								
100	1.44E-03	2.85E-03	7.28E-03	1.19E-02	1.20E-02	3.29E-03	2.11E-03	2.47E-03
200	1.27E-03	2.43E-03	1.06E-02	2.31E-02	2.27E-02	6.89E-03	3.97E-03	5.28E-03
300	1.14E-03	2.38E-03	1.28E-02	2.17E-02	1.92E-02	6.11E-03	3.66E-03	5.07E-03
400	1.04E-03	2.39E-03	1.20E-02	1.73E-02	1.45E-02	4.65E-03	2.84E-03	3.94E-03
500	1.07E-03	2.36E-03	1.13E-02	1.42E-02	1.13E-02	3.58E-03	2.21E-03	3.12E-03
600	1.00E-03	2.37E-03	1.09E-02	1.23E-02	9.15E-03	2.86E-03	1.76E-03	2.49E-03
700	1.36E-03	2.37E-03	1.05E-02	1.16E-02	7.73E-03	2.36E-03	1.44E-03	2.03E-03
800	1.31E-03	2.36E-03	9.98E-03	9.96E-03	6.66E-03	1.99E-03	1.21E-03	1.62E-03
900	1.32E-03	2.30E-03	9.44E-03	9.08E-03	5.83E-03	1.72E-03	1.04E-03	1.44E-03
1000	1.37E-03	2.27E-03	8.89E-03	8.33E-03	5.19E-03	1.51E-03	9.10E-04	1.25E-03
1500	1.27E-03	1.97E-03	6.46E-03	5.63E-03	3.27E-03	9.50E-04	5.71E-04	7.92E-04
2000	1.16E-03	1.74E-03	4.99E-03	4.22E-03	2.38E-03	7.14E-04	4.40E-04	6.18E-04
2500	1.08E-03	1.53E-03	4.02E-03	3.36E-03	1.86E-03	5.92E-04	3.82E-04	5.31E-04
3000	9.81E-04	1.34E-03	3.31E-03	2.76E-03	1.54E-03	5.05E-04	3.36E-04	4.64E-04
4000	7.77E-04	1.02E-03	2.39E-03	1.93E-03	1.10E-03	3.75E-04	2.57E-04	3.52E-04
5000	6.37E-04	8.17E-04	1.85E-03	1.55E-03	8.59E-04	2.99E-04	2.10E-04	2.86E-04
6000	5.36E-04	6.74E-04	1.50E-03	1.25E-03	6.95E-04	2.47E-04	1.76E-04	2.38E-04
7000	4.59E-04	5.70E-04	1.24E-03	1.04E-03	5.79E-04	2.09E-04	1.51E-04	2.03E-04
8000	4.00E-04	4.92E-04	1.06E-03	8.89E-04	4.95E-04	1.80E-04	1.31E-04	1.76E-04
9000	3.52E-04	4.30E-04	9.17E-04	7.74E-04	4.23E-04	1.58E-04	1.16E-04	1.50E-04

STANCE	S	SSW	SW	WSW	W	WNW	NW	NNW	AVG
ETERS):									
100	4.17E-03	4.57E-03	3.95E-03	3.38E-03	4.94E-03	8.22E-03	4.56E-03	2.42E-03	5.06E-03
200	7.85E-03	8.30E-03	6.75E-03	4.08E-03	3.28E-03	4.59E-03	2.64E-03	1.54E-03	7.21E-03
300	6.59E-03	7.31E-03	6.94E-03	4.10E-03	2.74E-03	3.45E-03	2.13E-03	1.37E-03	6.70E-03
400	4.97E-03	5.70E-03	5.88E-03	3.53E-03	2.29E-03	2.76E-03	1.81E-03	1.22E-03	5.45E-03
500	3.84E-03	4.49E-03	4.85E-03	3.03E-03	2.04E-03	2.44E-03	1.66E-03	1.15E-03	4.55E-03
600	2.07E-03	3.64E-03	4.07E-03	2.68E-03	1.97E-03	2.43E-03	1.68E-03	1.14E-03	3.99E-03
700	2.57E-03	3.03E-03	3.49E-03	2.43E-03	1.98E-03	2.60E-03	1.77E-03	1.15E-03	3.61E-03
800	1.13E-03	2.57E-03	3.04E-03	2.25E-03	2.01E-03	2.80E-03	1.87E-03	1.19E-03	3.31E-03
900	1.97E-03	2.22E-03	2.68E-03	2.07E-03	2.05E-03	3.00E-03	1.95E-03	1.19E-03	3.07E-03
1000	1.31E-03	1.96E-03	2.40E-03	1.94E-03	2.09E-03	3.19E-03	2.02E-03	1.18E-03	2.88E-03
1500	1.07E-03	1.27E-03	1.63E-03	1.53E-03	2.09E-03	3.46E-03	2.03E-03	1.09E-03	2.19E-03
2000	1.04E-04	9.98E-04	1.29E-03	1.39E-03	2.12E-03	3.58E-03	2.02E-03	1.06E-03	1.84E-03
2500	4.07E-04	8.44E-04	1.10E-03	1.22E-03	2.06E-03	3.51E-03	1.95E-03	1.02E-03	1.61E-03
3000	3.95E-04	7.31E-04	9.46E-04	1.10E-03	1.94E-03	3.31E-03	1.82E-03	9.49E-04	1.42E-03
4000	4.91E-04	5.48E-04	7.09E-04	8.50E-04	1.56E-03	2.67E-03	1.45E-03	7.59E-04	1.08E-03
5000	3.63E-04	4.41E-04	5.66E-04	6.93E-04	1.30E-03	2.22E-03	1.21E-03	6.31E-04	8.70E-04
6000	2.07E-04	3.05E-04	4.68E-04	5.77E-04	1.10E-03	1.88E-03	1.02E-03	5.34E-04	7.23E-04
7000	2.07E-04	3.10E-04	3.96E-04	4.90E-04	9.49E-04	1.63E-03	8.81E-04	4.61E-04	6.14E-04
8000	2.07E-04	2.68E-04	3.42E-04	4.31E-04	8.31E-04	1.42E-03	7.69E-04	4.04E-04	5.32E-04
9000	1.24E-04	2.46E-04	3.01E-04	3.90E-04	7.76E-04	1.26E-03	6.82E-04	3.57E-04	4.68E-04

NORMAL DUE TO INCREASING EMISSIONS OF ZERO
INDIVIDUAL GENETIC DOSE EG. (199)

REPRODUCED FROM BEST
AVAILABLE COPY

DR RADIATION : SUN
ID 00000000 : AVERAGE
VD PATHWAY : ALL

DIRECTIONS:	NE	NE	NE	E	ESC	SE	SE
DISTANCE (METERS):							
100	1.11E-02	1.30E-02	3.48E-02	7.87E-02	9.44E-02	2.32E-02	1.30E-02
200	1.11E-02	1.26E-02	8.83E-02	2.14E-01	2.17E-01	6.50E-02	7.62E-02
300	1.11E-02	1.89E-02	1.17E-01	2.27E-01	1.87E-01	5.87E-02	3.44E-02
400	1.11E-02	2.03E-02	1.12E-01	1.65E-01	1.41E-01	4.47E-02	2.68E-02
500	1.11E-02	2.09E-02	1.07E-01	1.36E-01	1.09E-01	3.44E-02	2.08E-02
600	1.11E-02	2.15E-02	1.04E-01	1.19E-01	8.66E-02	2.74E-02	1.65E-02
700	1.11E-02	2.18E-02	1.01E-01	1.06E-01	7.47E-02	2.25E-02	1.34E-02
800	1.11E-02	2.18E-02	9.67E-02	9.67E-02	6.43E-02	1.90E-02	1.13E-02
900	1.11E-02	2.16E-02	9.18E-02	8.78E-02	5.63E-02	1.64E-02	9.64E-03
1000	1.11E-02	2.15E-02	8.66E-02	8.26E-02	5.01E-02	1.44E-02	8.42E-03
1500	1.11E-02	1.90E-02	6.32E-02	5.49E-02	3.15E-02	8.99E-03	5.25E-03
2000	1.11E-02	1.69E-02	4.89E-02	4.09E-02	2.29E-02	6.76E-03	4.06E-03
2500	1.11E-02	1.50E-02	3.94E-02	3.26E-02	1.81E-02	5.62E-03	3.56E-03
3000	1.11E-02	1.32E-02	3.24E-02	2.68E-02	1.48E-02	4.80E-03	3.15E-03
4000	1.11E-02	1.00E-02	2.34E-02	1.90E-02	1.06E-02	3.57E-03	2.41E-03
5000	1.11E-02	8.94E-03	1.82E-02	1.50E-02	8.24E-03	2.85E-03	1.98E-03
6000	1.11E-02	6.65E-03	1.46E-02	1.21E-02	6.05E-03	2.36E-03	1.66E-03
7000	1.11E-02	5.63E-03	1.22E-02	1.01E-02	5.54E-03	1.99E-03	1.43E-03
8000	1.11E-02	4.86E-03	1.04E-02	8.59E-03	4.73E-03	1.72E-03	1.24E-03
9000	1.11E-02	4.25E-03	8.99E-03	7.49E-03	4.14E-03	1.52E-03	1.11E-03

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DISTANCE (METERS):	SSW	SW	WSW	W	WNW	NW	NNW	AVG
100	5.24E-02	3.77E-02	2.43E-02	1.83E-02	2.29E-02	3.74E-02	2.07E-02	1.10E-02
200	7.45E-02	7.80E-02	6.09E-02	3.36E-02	1.97E-02	2.36E-02	1.40E-02	8.88E-03
300	6.35E-02	7.01E-02	6.54E-02	3.65E-02	1.88E-02	1.97E-02	1.31E-02	9.38E-03
400	4.75E-02	5.49E-02	5.59E-02	3.20E-02	1.65E-02	1.66E-02	1.20E-02	8.99E-03
500	3.70E-02	4.31E-02	4.62E-02	2.77E-02	1.53E-02	1.56E-02	1.18E-02	8.99E-03
600	2.70E-02	3.49E-02	3.88E-02	2.46E-02	1.55E-02	1.70E-02	1.28E-02	9.50E-03
700	2.40E-02	2.90E-02	3.33E-02	2.25E-02	1.63E-02	1.98E-02	1.44E-02	1.00E-02
800	2.03E-02	2.45E-02	2.69E-02	2.07E-02	1.71E-02	2.28E-02	1.59E-02	1.04E-02
900	1.74E-02	2.12E-02	2.56E-02	1.93E-02	1.78E-02	2.54E-02	1.70E-02	1.06E-02
1000	1.53E-02	1.86E-02	2.29E-02	1.82E-02	1.85E-02	2.79E-02	1.80E-02	1.07E-02
1500	9.86E-03	1.21E-02	1.55E-02	1.46E-02	1.95E-02	3.21E-02	1.89E-02	1.02E-02
2000	7.76E-03	9.51E-03	1.24E-02	1.30E-02	2.03E-02	3.42E-02	1.93E-02	1.02E-02
2500	6.44E-03	8.09E-03	1.05E-02	1.18E-02	2.00E-02	3.40E-02	1.88E-02	9.84E-03
3000	5.75E-03	7.03E-03	9.13E-03	1.07E-02	1.89E-02	3.23E-02	1.77E-02	9.24E-03
4000	4.34E-03	5.27E-03	6.85E-03	8.30E-03	1.53E-02	2.61E-02	1.42E-02	7.42E-03
5000	3.50E-03	4.25E-03	5.47E-03	6.78E-03	1.27E-02	2.18E-02	1.18E-02	6.19E-03
6000	2.90E-03	3.52E-03	4.54E-03	5.71E-03	1.09E-02	1.86E-02	1.01E-02	5.27E-03
7000	2.46E-03	2.99E-03	3.85E-03	4.87E-03	9.38E-03	1.61E-02	8.70E-03	4.55E-03
8000	2.13E-03	2.59E-03	3.32E-03	4.24E-03	8.22E-03	1.41E-02	7.61E-03	3.99E-03
9000	1.80E-03	2.25E-03	2.93E-03	3.75E-03	7.25E-03	1.25E-02	6.61E-03	3.52E-03

NORMAL DUTY INCINERATOR 6 EMISSIONS 10/89
INDIVIDUAL DOSE EC. RATE(MREM/YEAR)

FOR RADIONUCLIDE : SUM
AND ORGAN/CANCER : WT. SUM
AND PATHWAY : ENV. STEADY

DIRECTIONS:	NE	ENE	E	ESE	SE	SSE
DISTANCE (METERS):						
100	1.11E-03	2.84E-03	7.16E-03	1.05E-02	9.88E-03	2.85E-03
200	1.11E-03	1.84E-03	4.50E-03	1.74E-02	1.87E-02	5.13E-03
300	1.11E-03	1.06E-03	2.69E-03	1.00E-02	1.41E-02	4.49E-03
400	1.11E-03	1.89E-03	8.96E-03	1.27E-02	1.06E-02	3.41E-03
500	1.11E-03	1.03E-03	8.37E-03	1.05E-02	8.23E-03	2.63E-03
600	1.11E-03	1.21E-03	8.02E-03	9.04E-03	6.69E-03	2.10E-03
700	1.11E-03	1.79E-03	7.68E-03	8.07E-03	5.85E-03	1.74E-03
800	1.11E-03	1.75E-03	7.28E-03	7.35E-03	4.87E-03	1.47E-03
900	1.11E-03	1.71E-03	6.88E-03	6.65E-03	4.27E-03	1.27E-03
1000	1.11E-03	1.68E-03	6.47E-03	6.01E-03	3.80E-03	1.12E-03
1500	9.12E-04	1.44E-03	4.69E-03	4.11E-03	2.40E-03	7.05E-04
2000	7.56E-04	1.27E-03	3.62E-03	3.08E-03	1.75E-03	5.30E-04
2500	7.04E-04	1.11E-03	2.92E-03	2.46E-03	1.38E-03	4.39E-04
3000	7.11E-04	9.74E-04	2.40E-03	2.00E-03	1.13E-03	3.74E-04
4000	7.07E-04	7.40E-04	1.74E-03	1.46E-03	8.14E-04	2.78E-04
5000	6.64E-04	5.93E-04	1.35E-03	1.15E-03	6.35E-04	2.22E-04
6000	5.23E-04	4.90E-04	1.09E-03	9.19E-04	5.14E-04	1.83E-04
7000	5.14E-04	4.15E-04	9.07E-04	7.67E-04	4.29E-04	1.55E-04
8000	2.81E-04	3.58E-04	7.74E-04	6.55E-04	3.67E-04	1.34E-04
9000	2.57E-04	3.13E-04	6.71E-04	5.71E-04	3.22E-04	1.18E-04

REPRODUCED FROM BEST
AVAILABLE COPY

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DISTANCE (METERS):	SSW	SW	WSW	W	WNW	NW	NNW	AVG
100	2.84E-03	4.18E-03	3.60E-03	3.11E-03	4.90E-03	8.18E-03	4.55E-03	2.41E-03
200	1.84E-03	6.18E-03	5.17E-03	3.29E-03	3.02E-03	4.43E-03	2.52E-03	1.44E-03
300	1.06E-03	5.38E-03	5.17E-03	3.16E-03	2.41E-03	3.23E-03	1.94E-03	1.20E-03
400	1.89E-03	4.19E-03	4.35E-03	2.70E-03	1.97E-03	2.55E-03	1.61E-03	1.03E-03
500	1.03E-03	3.30E-03	3.58E-03	2.30E-03	1.72E-03	2.20E-03	1.44E-03	9.52E-04
600	1.21E-03	2.03E-03	3.01E-03	2.02E-03	1.02E-03	2.11E-03	1.41E-03	8.32E-04
700	1.79E-03	2.23E-03	2.58E-03	1.85E-03	1.80E-03	2.17E-03	1.44E-03	9.30E-04
800	1.75E-03	1.89E-03	2.24E-03	1.67E-03	1.80E-03	2.28E-03	1.49E-03	9.27E-04
900	1.71E-03	1.64E-03	1.98E-03	1.55E-03	1.60E-03	2.38E-03	1.52E-03	9.14E-04
1000	1.68E-03	1.45E-03	1.78E-03	1.45E-03	1.61E-03	2.49E-03	1.56E-03	9.04E-04
1500	1.44E-03	9.39E-04	1.20E-03	1.13E-03	1.57E-03	2.60E-03	1.52E-03	8.18E-04
2000	1.27E-03	7.46E-04	9.51E-04	9.94E-04	1.57E-03	2.65E-03	1.49E-03	7.84E-04
2500	1.11E-03	6.02E-04	8.06E-04	8.95E-04	1.51E-03	2.57E-03	1.43E-03	7.40E-04
3000	9.74E-04	5.38E-04	6.95E-04	8.02E-04	1.42E-03	2.42E-03	1.33E-03	6.93E-04
4000	7.40E-04	4.03E-04	5.20E-04	6.21E-04	1.14E-03	1.94E-03	1.06E-03	5.53E-04
5000	5.93E-04	3.25E-04	4.15E-04	5.00E-04	9.43E-04	1.62E-03	8.79E-04	4.60E-04
6000	4.90E-04	2.44E-04	3.44E-04	4.25E-04	8.63E-04	1.37E-03	7.45E-04	3.93E-04
7000	4.15E-04	2.08E-04	2.72E-04	3.62E-04	6.91E-04	1.18E-03	6.42E-04	3.36E-04
8000	3.58E-04	1.79E-04	2.52E-04	3.15E-04	6.05E-04	1.04E-03	5.61E-04	2.94E-04
9000	3.13E-04	1.74E-04	2.22E-04	2.78E-04	5.38E-04	9.18E-04	4.97E-04	2.61E-04

NORMAL DRY INCINERATOR EMISSIONS 11/78
INDIVIDUAL GENETIC DOSE EG. (REM)

REPRODUCED FROM BEST
AVAILABLE COPY

OR RADIONUCLIDE : SUM
ND ORGAN/CANCER : AVERAGE
ND PATHWAY : INGESTION

DIRECTIONS:	S	SSW	SW	WSW	W	WNW	NW	SSSE
DISTANCE (METERS):								
100	1.00E-02	1.26E-02	3.35E-02	6.84E-02	7.34E-02	2.00E-02	1.16E-02	1.38E-02
200	1.00E-03	1.12E-02	7.35E-02	1.74E-01	1.76E-01	5.28E-02	2.96E-02	3.98E-02
300	1.00E-02	1.59E-02	9.55E-02	1.67E-01	1.51E-01	4.75E-02	2.80E-02	3.92E-02
400	1.00E-03	1.68E-02	9.12E-02	1.34E-01	1.14E-01	3.62E-02	2.18E-02	3.10E-02
500	1.00E-03	1.72E-02	8.68E-02	1.10E-01	8.82E-02	2.78E-02	1.69E-02	2.41E-02
600	1.00E-03	1.76E-02	8.45E-02	9.59E-02	7.16E-02	2.22E-02	1.34E-02	1.92E-02
700	1.00E-03	1.78E-02	8.17E-02	8.58E-02	6.04E-02	1.82E-02	1.09E-02	1.56E-02
800	1.00E-03	1.77E-02	7.80E-02	7.78E-02	5.20E-02	1.54E-02	9.17E-03	1.30E-02
900	1.00E-03	1.75E-02	7.42E-02	7.09E-02	4.55E-02	1.33E-02	7.85E-03	1.11E-02
1000	1.00E-03	1.74E-02	6.99E-02	6.51E-02	4.05E-02	1.17E-02	6.86E-03	9.60E-03
1500	1.00E-03	1.53E-02	5.09E-02	4.41E-02	2.55E-02	7.29E-03	4.29E-03	6.04E-03
2000	1.00E-03	1.37E-02	3.95E-02	3.30E-02	1.85E-02	5.49E-03	3.31E-03	4.73E-03
2500	1.00E-03	1.21E-02	3.18E-02	2.64E-02	1.46E-02	4.56E-03	2.90E-03	4.09E-03
3000	1.00E-03	1.06E-02	2.62E-02	2.16E-02	1.20E-02	3.90E-03	2.56E-03	3.58E-03
4000	1.00E-03	8.08E-03	1.89E-02	1.56E-02	8.57E-03	2.90E-03	1.96E-03	2.72E-03
5000	1.00E-03	6.49E-03	1.47E-02	1.21E-02	6.68E-03	2.32E-03	1.61E-03	2.22E-03
6000	1.00E-03	5.36E-03	1.18E-02	9.80E-03	5.39E-03	1.91E-03	1.35E-03	1.85E-03
7000	1.00E-03	4.55E-03	9.85E-03	8.17E-03	4.49E-03	1.62E-03	1.16E-03	1.58E-03
8000	1.00E-03	3.93E-03	8.40E-03	6.97E-03	3.84E-03	1.40E-03	1.01E-03	1.38E-03
9000	1.00E-03	3.44E-03	7.27E-03	6.07E-03	3.36E-03	1.23E-03	9.01E-04	1.22E-03

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DIRECTIONS:	S	SSW	SW	WSW	W	WNW	NW	NNW	AVG
DISTANCE (METERS):									
100	2.74E-02	3.20E-02	2.17E-02	1.69E-02	2.22E-02	3.65E-02	2.02E-02	1.07E-02	2.74E-02
200	6.07E-02	6.33E-02	4.98E-02	2.81E-02	1.77E-02	2.22E-02	1.30E-02	8.07E-03	5.18E-02
300	5.13E-02	5.67E-02	5.31E-02	2.99E-02	1.63E-02	1.80E-02	1.17E-02	8.15E-03	5.00E-02
400	3.87E-02	4.44E-02	4.53E-02	2.62E-02	1.41E-02	1.49E-02	1.05E-02	7.67E-03	4.10E-02
500	2.89E-02	3.49E-02	3.74E-02	2.26E-02	1.30E-02	1.38E-02	1.02E-02	7.58E-03	3.44E-02
600	2.53E-02	2.83E-02	3.15E-02	2.01E-02	1.30E-02	1.47E-02	1.09E-02	7.92E-03	3.02E-02
700	1.96E-02	2.35E-02	2.69E-02	1.83E-02	1.36E-02	1.68E-02	1.20E-02	8.32E-03	2.74E-02
800	1.69E-02	1.99E-02	2.35E-02	1.68E-02	1.42E-02	1.90E-02	1.32E-02	8.57E-03	2.53E-02
900	1.41E-02	1.71E-02	2.07E-02	1.57E-02	1.47E-02	2.11E-02	1.40E-02	8.67E-03	2.35E-02
1000	1.24E-02	1.51E-02	1.86E-02	1.48E-02	1.52E-02	2.30E-02	1.48E-02	8.76E-03	2.21E-02
1500	1.00E-03	9.73E-03	1.26E-02	1.18E-02	1.58E-02	2.62E-02	1.54E-02	8.32E-03	1.69E-02
2000	6.89E-03	7.71E-03	1.00E-02	1.05E-02	1.64E-02	2.77E-02	1.57E-02	8.23E-03	1.44E-02
2500	5.37E-03	6.55E-03	8.54E-03	9.56E-03	1.61E-02	2.75E-02	1.52E-02	7.96E-03	1.26E-02
3000	4.66E-03	5.69E-03	7.39E-03	8.62E-03	1.53E-02	2.61E-02	1.43E-02	7.46E-03	1.11E-02
4000	3.51E-03	4.27E-03	5.54E-03	6.71E-03	1.23E-02	2.11E-02	1.15E-02	6.00E-03	8.49E-03
5000	2.83E-03	3.44E-03	4.43E-03	5.48E-03	1.03E-02	1.76E-02	9.57E-03	5.00E-03	6.87E-03
6000	2.49E-03	2.86E-03	3.68E-03	4.61E-03	8.78E-03	1.50E-02	8.15E-03	4.20E-03	5.72E-03
7000	2.00E-03	2.43E-03	3.12E-03	3.94E-03	7.59E-03	1.30E-02	7.04E-03	3.68E-03	4.87E-03
8000	1.73E-03	2.19E-03	2.69E-03	3.44E-03	6.65E-03	1.14E-02	6.16E-03	3.23E-03	4.22E-03
9000	1.50E-03	1.96E-03	2.37E-03	3.00E-03	5.80E-03	1.00E-02	5.40E-03	2.80E-03	3.70E-03

NORMAL DWT INCINERATOR 6 EPI SIGNS 1/789
INDIVIDUAL DOSE EQ. RATE(MPB/YEAR)

REPRODUCED FROM BEST
AVAILABLE COPY

RAIONUCLIDE : SUM
ORGAN/CARCIN : WT. SUM
PATHWAY : INHALATION
ECTIONS :
STANCE
(ETERS):

	NE	SE	E	ESE	SE	SSE
100	1.58E-06	9.72E-06	1.39E-03	2.49E-03	4.32E-04	1.78E-04
200	1.78E-04	2.09E-03	5.71E-03	5.95E-03	1.75E-03	9.48E-04
300	4.22E-04	3.07E-03	5.64E-03	5.17E-03	1.61E-03	9.29E-04
400	4.83E-04	3.01E-03	4.53E-03	3.50E-03	1.23E-03	7.25E-04
500	5.27E-04	2.91E-03	3.74E-03	3.02E-03	9.43E-04	5.59E-04
600	5.58E-04	2.86E-03	3.26E-03	2.45E-03	7.49E-04	4.42E-04
700	5.77E-04	2.79E-03	2.93E-03	2.06E-03	6.15E-04	3.60E-04
800	5.81E-04	2.68E-03	2.65E-03	1.78E-03	5.17E-04	3.00E-04
900	5.81E-04	2.54E-03	2.42E-03	1.55E-03	4.46E-04	2.56E-04
1000	5.81E-04	2.41E-03	2.23E-03	1.38E-03	3.91E-04	2.23E-04
1500	5.21E-04	1.76E-03	1.51E-03	8.65E-04	2.43E-04	1.38E-04
2000	4.69E-04	1.36E-03	1.13E-03	6.27E-04	1.83E-04	1.07E-04
2500	4.16E-04	1.10E-03	8.99E-04	4.94E-04	1.53E-04	9.45E-05
3000	3.66E-04	9.03E-04	7.39E-04	4.04E-04	1.30E-04	8.39E-05
4000	2.78E-04	6.51E-04	5.27E-04	2.87E-04	9.65E-05	6.42E-05
5000	2.22E-04	5.02E-04	4.09E-04	2.23E-04	7.69E-05	5.27E-05
6000	1.83E-04	4.04E-04	3.29E-04	1.80E-04	6.33E-05	4.42E-05
7000	1.55E-04	3.34E-04	2.73E-04	1.49E-04	5.35E-05	3.78E-05
8000	1.33E-04	2.83E-04	2.32E-04	1.27E-04	4.60E-05	3.29E-05
9000	1.16E-04	2.45E-04	2.02E-04	1.11E-04	4.03E-05	2.91E-05

E-23

	SSW	SW	WSW	W	WNW	NW	NNW	AVG
STANCE (ETERS):								
100	7.20E-04	3.38E-04	1.63E-04	2.81E-05	9.21E-06	4.49E-06	3.77E-06	3.97E-04
200	2.11E-03	1.58E-03	7.87E-04	2.51E-04	1.47E-04	1.06E-04	9.94E-05	1.57E-03
300	1.92E-03	1.77E-03	9.30E-04	3.31E-04	2.13E-04	1.80E-04	1.66E-04	1.60E-03
400	1.52E-03	1.52E-03	9.32E-04	3.17E-04	2.11E-04	1.98E-04	1.81E-04	1.33E-03
500	1.18E-03	1.26E-03	7.25E-04	3.14E-04	2.35E-04	2.22E-04	1.97E-04	1.12E-03
600	9.58E-04	1.06E-03	6.53E-04	3.41E-04	3.13E-04	2.71E-04	2.22E-04	9.91E-04
700	7.94E-04	9.07E-04	5.95E-04	3.79E-04	4.19E-04	3.30E-04	2.40E-04	9.04E-04
800	6.70E-04	7.90E-04	5.52E-04	4.14E-04	5.22E-04	3.83E-04	2.61E-04	8.37E-04
900	5.77E-04	6.97E-04	5.15E-04	4.43E-04	6.15E-04	4.25E-04	2.70E-04	7.81E-04
1000	5.07E-04	6.24E-04	4.88E-04	4.71E-04	6.98E-04	4.60E-04	2.77E-04	7.37E-04
1500	3.29E-04	4.24E-04	3.97E-04	5.20E-04	8.55E-04	5.06E-04	2.74E-04	5.70E-04
2000	2.59E-04	3.38E-04	3.56E-04	5.53E-04	9.31E-04	5.27E-04	2.77E-04	4.87E-04
2500	2.21E-04	2.89E-04	3.25E-04	5.49E-04	9.34E-04	5.17E-04	2.70E-04	4.29E-04
3000	1.92E-04	2.50E-04	2.95E-04	5.22E-04	8.93E-04	4.89E-04	2.55E-04	3.79E-04
4000	1.44E-04	1.87E-04	2.28E-04	4.21E-04	7.21E-04	3.93E-04	2.05E-04	2.89E-04
5000	1.16E-04	1.50E-04	1.86E-04	3.51E-04	6.01E-04	3.26E-04	1.71E-04	2.33E-04
6000	9.61E-05	1.23E-04	1.55E-04	2.78E-04	5.09E-04	2.76E-04	1.44E-04	1.93E-04
7000	8.16E-05	1.04E-04	1.35E-04	2.47E-04	4.40E-04	2.38E-04	1.24E-04	1.64E-04
8000	6.85E-05	8.96E-05	1.16E-04	2.24E-04	3.84E-04	2.07E-04	1.05E-04	1.41E-04
9000	6.15E-05	7.88E-05	1.02E-04	1.98E-04	3.39E-04	1.83E-04	9.61E-05	1.24E-04

PORTAL DUTY INCINERATOR FLY ASH DUST
INDIVIDUAL GENETIC DOSE EQ. (C.F.D.)

REPRODUCED FROM BEST
AVAILABLE COPY

R RADIONUCLIDES : SUR
ID ORGAN/CANCER : AVERAGE
ID PATHWAY : INHALATION

DIRECTIONS:	SE	ENE	E	ENE	E	ENE	SE	ENE
DISTANCE (METERS):								
100	4.40E-03	1.07E-03	6.59E-04	4.40E-03	1.42E-02	2.93E-03	1.21E-03	1.53E-03
200	1.1E-04	1.21E-03	1.42E-02	4.40E-02	4.04E-02	1.19E-02	6.43E-03	8.82E-03
300	1.07E-03	2.86E-03	2.08E-02	4.40E-02	3.51E-02	1.09E-02	6.30E-03	8.97E-03
400	1.07E-03	3.34E-03	2.04E-02	4.40E-02	2.05E-02	8.35E-03	4.92E-03	7.12E-03
500	1.07E-03	3.58E-03	1.98E-02	2.54E-02	2.05E-02	6.40E-03	3.80E-03	5.54E-03
600	1.77E-03	3.79E-03	1.94E-02	2.21E-02	1.66E-02	5.08E-03	3.00E-03	4.39E-03
700	1.07E-03	3.41E-03	1.89E-02	1.99E-02	1.40E-02	4.18E-03	2.44E-03	3.55E-03
800	1.07E-03	3.95E-03	1.82E-02	1.80E-02	1.21E-02	3.52E-03	2.04E-03	2.94E-03
900	1.07E-03	4.05E-03	1.73E-02	1.60E-02	1.05E-02	3.03E-03	1.74E-03	2.49E-03
1000	1.07E-03	4.05E-03	1.63E-02	1.51E-02	9.36E-03	2.65E-03	1.51E-03	2.11E-03
1500	1.07E-03	3.54E-03	1.20E-02	1.02E-02	5.87E-03	1.65E-03	9.39E-04	1.35E-03
2000	1.07E-03	3.18E-03	9.27E-03	7.67E-03	4.26E-03	1.24E-03	7.28E-04	1.06E-03
2500	1.07E-03	2.83E-03	7.45E-03	6.11E-03	3.36E-03	1.04E-03	6.43E-04	9.23E-04
3000	1.07E-03	2.48E-03	6.14E-03	5.02E-03	2.75E-03	8.85E-04	5.70E-04	8.11E-04
4000	1.07E-03	1.89E-03	4.42E-03	3.59E-03	1.95E-03	6.57E-04	4.37E-04	6.17E-04
5000	1.07E-03	1.52E-03	3.42E-03	2.79E-03	1.52E-03	5.24E-04	3.59E-04	5.02E-04
6000	1.07E-04	1.25E-03	2.75E-03	2.25E-03	1.23E-03	4.32E-04	3.02E-04	4.18E-04
7000	1.07E-04	1.06E-03	2.28E-03	1.87E-03	1.02E-03	3.65E-04	2.58E-04	3.57E-04
8000	7.02E-04	9.10E-04	1.93E-03	1.59E-03	8.66E-04	3.14E-04	2.25E-04	3.09E-04
9000	1.07E-04	7.95E-04	1.68E-03	1.39E-03	7.56E-04	2.76E-04	1.99E-04	2.77E-04

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DIRECTIONS:	SSW	SW	WSW	W	WNW	WW	NNW	AVG
DISTANCE (METERS):								
100	4.40E-03	5.35E-03	2.29E-02	1.1E-03	1.90E-04	6.25E-05	3.05E-05	2.50E-05
200	1.38E-02	1.43E-02	1.07E-02	5.34E-03	1.70E-03	9.96E-04	7.21E-04	6.74E-04
300	1.1E-02	1.30E-02	1.20E-02	6.31E-03	2.25E-03	1.44E-03	1.22E-03	1.13E-03
400	1.07E-03	1.02E-02	1.03E-02	5.65E-03	2.15E-03	1.43E-03	1.35E-03	1.23E-03
500	1.07E-03	2.04E-03	8.55E-03	4.91E-03	2.13E-03	1.60E-03	1.50E-03	1.34E-03
600	1.07E-03	6.50E-03	7.19E-03	4.41E-03	2.31E-03	2.12E-03	1.84E-03	1.58E-03
700	4.77E-03	5.38E-03	6.16E-03	4.04E-03	2.58E-03	2.84E-03	2.24E-03	1.66E-03
800	1.77E-03	4.55E-03	5.36E-03	3.74E-03	2.81E-03	3.55E-03	2.60E-03	1.77E-03
900	1.07E-03	3.92E-03	4.73E-03	3.50E-03	3.01E-03	4.17E-03	2.89E-03	1.83E-03
1000	1.07E-03	3.44E-03	4.24E-03	3.31E-03	3.20E-03	4.73E-03	3.12E-03	1.88E-03
1500	1.07E-03	2.23E-03	2.87E-03	2.64E-03	3.53E-03	5.80E-03	3.44E-03	1.86E-03
2000	1.07E-03	1.76E-03	2.30E-03	2.42E-03	3.75E-03	6.33E-03	3.58E-03	1.89E-03
2500	1.07E-03	1.50E-03	1.96E-03	2.21E-03	3.73E-03	6.34E-03	3.52E-03	1.84E-03
3000	1.07E-03	1.31E-03	1.70E-03	2.00E-03	3.55E-03	6.07E-03	3.32E-03	1.73E-03
4000	8.05E-04	9.79E-04	1.28E-03	1.55E-03	2.87E-03	4.91E-03	2.68E-03	1.40E-03
5000	6.48E-04	7.88E-04	1.02E-03	1.27E-03	2.39E-03	4.10E-03	2.22E-03	1.16E-03
6000	5.27E-04	6.53E-04	8.41E-04	1.07E-03	2.04E-03	3.48E-03	1.89E-03	9.87E-04
7000	4.55E-04	5.53E-04	7.12E-04	9.11E-04	1.76E-03	3.01E-03	1.63E-03	8.51E-04
8000	3.93E-04	4.77E-04	6.14E-04	7.91E-04	1.54E-03	2.64E-03	1.42E-03	7.45E-04
9000	3.07E-04	4.01E-04	5.40E-04	6.07E-04	1.37E-03	2.35E-03	1.25E-03	6.07E-04

NORMAL DDTF INCINERATOR 6 EMISSIONS 10/89
INDIVIDUAL DOSE EC. RATE(MREM/YEAR)

REPRODUCED FROM BEST
AVAILABLE COPY

FOR RADIONUCLIDE : SUM
AND ORGAN/CANCER : WT. SUM
AND PATHWAY : EXTERNAL
DIRECTIONS :
DISTANCE
(METERS):

	NNE	NE	ENE	E	ENE	SE	SSE
100	7.13E-06	8.40E-06	2.09E-05	2.67E-05	2.20E-05	6.95E-06	5.09E-06
200	6.13E-06	4.83E-06	1.78E-05	3.16E-05	2.88E-05	9.06E-06	5.66E-06
300	5.23E-06	4.33E-06	1.80E-05	2.78E-05	2.36E-05	7.66E-06	4.85E-06
400	4.43E-06	3.89E-06	1.60E-05	2.19E-05	1.77E-05	5.81E-06	3.74E-06
500	3.81E-06	3.58E-06	1.47E-05	1.80E-05	1.38E-05	4.50E-06	2.92E-06
600	3.33E-06	3.43E-06	1.38E-05	1.55E-05	1.13E-05	3.61E-06	2.34E-06
700	2.97E-06	3.28E-06	1.30E-05	1.37E-05	9.53E-06	3.01E-06	1.94E-06
800	2.72E-06	3.16E-06	1.23E-05	1.24E-05	8.24E-06	2.55E-06	1.64E-06
900	2.51E-06	3.04E-06	1.15E-05	1.12E-05	7.23E-06	2.21E-06	1.42E-06
1000	2.33E-06	2.95E-06	1.08E-05	1.03E-05	6.44E-06	1.95E-06	1.25E-06
1500	1.81E-06	2.45E-06	7.75E-06	6.92E-06	4.09E-06	1.24E-06	7.95E-07
2000	1.44E-06	2.12E-06	5.97E-06	5.17E-06	2.99E-06	9.30E-07	6.09E-07
2500	1.23E-06	1.84E-06	4.78E-06	4.13E-06	2.37E-06	7.67E-07	5.18E-07
3000	1.11E-06	1.60E-06	3.94E-06	3.46E-06	1.94E-06	6.50E-07	4.50E-07
4000	8.73E-07	1.21E-06	2.86E-06	2.45E-06	1.40E-06	4.82E-07	3.42E-07
5000	7.00E-07	9.70E-07	2.22E-06	1.92E-06	1.09E-06	3.85E-07	2.78E-07
6000	6.45E-07	7.99E-07	1.80E-06	1.55E-06	8.87E-07	3.18E-07	2.32E-07
7000	6.06E-07	6.75E-07	1.50E-06	1.30E-06	7.43E-07	2.69E-07	1.99E-07
8000	5.75E-07	5.81E-07	1.28E-06	1.11E-06	6.35E-07	2.32E-07	1.73E-07
9000	5.52E-07	5.05E-07	1.11E-06	9.67E-07	5.56E-07	2.04E-07	1.53E-07

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DISTANCE (METERS):	SSW	SE	WSW	W	WNW	NW	NNW	AVG
100	8.13E-06	9.61E-06	9.45E-06	8.80E-06	1.44E-05	2.42E-05	1.34E-05	7.11E-06
200	1.01E-05	1.10E-05	9.83E-06	6.94E-06	8.04E-06	1.26E-05	7.10E-06	3.91E-06
300	8.21E-06	9.23E-06	9.16E-06	6.12E-06	5.96E-06	8.83E-06	5.12E-06	2.97E-06
400	6.14E-06	7.15E-06	7.56E-06	5.08E-06	4.71E-06	6.80E-06	4.07E-06	2.43E-06
500	4.74E-06	5.84E-06	6.22E-06	4.25E-06	4.00E-06	5.68E-06	3.49E-06	2.13E-06
600	4.17E-06	4.66E-06	5.21E-06	3.73E-06	3.61E-06	5.16E-06	3.23E-06	1.99E-06
700	3.73E-06	3.85E-06	4.46E-06	3.32E-06	3.42E-06	4.97E-06	3.11E-06	1.90E-06
800	3.47E-06	3.27E-06	3.89E-06	3.03E-06	3.19E-06	4.92E-06	3.07E-06	1.83E-06
900	3.24E-06	2.85E-06	3.45E-06	2.78E-06	3.19E-06	4.91E-06	3.04E-06	1.77E-06
1000	3.04E-06	2.51E-06	3.09E-06	2.60E-06	3.13E-06	4.95E-06	3.01E-06	1.71E-06
1500	1.74E-06	1.64E-06	2.08E-06	1.90E-06	2.83E-06	4.70E-06	2.73E-06	1.44E-06
2000	1.04E-06	1.27E-06	1.64E-06	1.70E-06	2.72E-06	4.59E-06	2.58E-06	1.30E-06
2500	7.75E-07	1.07E-06	1.37E-06	1.51E-06	2.56E-06	4.36E-06	2.40E-06	1.20E-06
3000	7.46E-07	9.18E-07	1.19E-06	1.34E-06	2.36E-06	4.03E-06	2.21E-06	1.14E-06
4000	5.67E-07	6.89E-07	8.81E-07	1.03E-06	1.88E-06	3.20E-06	1.75E-06	9.17E-07
5000	4.36E-07	5.92E-07	7.04E-07	8.38E-07	1.55E-06	2.65E-06	1.44E-06	7.59E-07
6000	3.77E-07	4.37E-07	5.81E-07	7.08E-07	1.31E-06	2.24E-06	1.22E-06	6.32E-07
7000	3.43E-07	3.87E-07	4.92E-07	5.95E-07	1.12E-06	1.92E-06	1.04E-06	5.49E-07
8000	3.17E-07	3.41E-07	4.24E-07	5.17E-07	9.82E-07	1.68E-06	9.11E-07	4.73E-07
9000	2.94E-07	2.94E-07	3.72E-07	4.58E-07	8.67E-07	1.48E-06	8.03E-07	4.22E-07

NORMAL DIRT INCINERATOR COMBUSTION EFFICIENCY
INDIVIDUAL GASEOUS DOSE EQ. (E-11)

OR RADIOISOTOPE : SUP
NO ORGAS/CANAL : AVERAGE
NO PATHWAY : INTERNAL

INSTRUCTIONS:	W	SW	WSW	W	W	ESW	W	ESW
DISTANCE (METERS):								
100	2.44E-04	2.92E-04	7.27E-04	2.24E-04	7.63E-04	2.42E-04	1.77E-04	2.04E-04
200	1.22E-04	1.46E-04	3.64E-04	1.12E-04	3.81E-04	1.21E-04	8.8E-05	1.02E-04
300	8.1E-05	9.7E-05	2.43E-04	7.5E-05	2.54E-04	8.0E-05	5.8E-05	6.7E-05
400	6.1E-05	7.3E-05	1.82E-04	5.6E-05	1.91E-04	6.0E-05	4.4E-05	5.0E-05
500	4.9E-05	5.8E-05	1.46E-04	4.5E-05	1.53E-04	4.8E-05	3.5E-05	4.0E-05
600	4.1E-05	4.8E-05	1.21E-04	3.8E-05	1.26E-04	4.0E-05	2.9E-05	3.3E-05
700	3.5E-05	4.1E-05	1.04E-04	3.3E-05	1.08E-04	3.4E-05	2.5E-05	2.8E-05
800	3.0E-05	3.6E-05	9.0E-05	2.9E-05	9.5E-05	2.9E-05	2.2E-05	2.5E-05
900	2.6E-05	3.2E-05	8.0E-05	2.6E-05	8.5E-05	2.6E-05	1.9E-05	2.2E-05
1000	2.3E-05	2.8E-05	7.2E-05	2.3E-05	7.6E-05	2.3E-05	1.7E-05	2.0E-05
1500	1.5E-05	1.8E-05	4.6E-05	1.5E-05	4.9E-05	1.5E-05	1.1E-05	1.3E-05
2000	1.0E-05	1.2E-05	3.2E-05	1.0E-05	3.4E-05	1.0E-05	7.7E-06	9.0E-06
2500	7.7E-06	9.3E-06	2.5E-05	7.7E-06	2.7E-05	7.7E-06	6.1E-06	7.1E-06
3000	6.4E-06	7.8E-06	2.1E-05	6.4E-06	2.3E-05	6.4E-06	5.1E-06	5.9E-06
4000	4.1E-06	5.2E-06	1.4E-05	4.1E-06	1.5E-05	4.1E-06	3.3E-06	3.9E-06
5000	3.2E-06	4.1E-06	1.1E-05	3.2E-06	1.2E-05	3.2E-06	2.6E-06	3.1E-06
6000	2.7E-06	3.5E-06	9.5E-06	2.7E-06	1.0E-05	2.7E-06	2.2E-06	2.6E-06
7000	2.3E-06	3.0E-06	8.2E-06	2.3E-06	8.8E-06	2.3E-06	1.9E-06	2.2E-06
8000	2.0E-06	2.6E-06	7.2E-06	2.0E-06	7.8E-06	2.0E-06	1.6E-06	1.9E-06
9000	1.8E-06	2.3E-06	6.4E-06	1.8E-06	7.0E-06	1.8E-06	1.4E-06	1.7E-06

E-26

ISTANCE METERS):	SW	SW	WSW	W	W	WNW	WNW	WNW	AVG
100	2.44E-04	3.74E-04	3.29E-04	2.24E-04	5.01E-04	8.44E-04	4.68E-04	2.47E-04	4.31E-04
200	1.22E-04	1.87E-04	1.65E-04	1.12E-04	2.50E-04	4.39E-04	2.47E-04	1.36E-04	3.88E-04
300	8.1E-05	1.30E-04	1.17E-04	7.5E-05	1.67E-04	3.07E-04	1.78E-04	1.02E-04	3.28E-04
400	6.1E-05	9.7E-05	8.8E-05	5.6E-05	1.24E-04	2.37E-04	1.42E-04	7.4E-05	2.62E-04
500	4.9E-05	7.8E-05	7.1E-05	4.5E-05	1.01E-04	1.98E-04	1.21E-04	5.4E-05	2.17E-04
600	4.1E-05	6.5E-05	5.8E-05	3.8E-05	8.4E-05	1.79E-04	1.12E-04	4.5E-05	1.88E-04
700	3.5E-05	5.6E-05	5.0E-05	3.3E-05	7.4E-05	1.72E-04	1.08E-04	3.9E-05	1.68E-04
800	3.0E-05	4.9E-05	4.4E-05	2.9E-05	6.5E-05	1.71E-04	1.06E-04	3.4E-05	1.52E-04
900	2.6E-05	4.3E-05	3.9E-05	2.6E-05	5.8E-05	1.71E-04	1.05E-04	3.1E-05	1.40E-04
1000	2.3E-05	3.8E-05	3.5E-05	2.3E-05	5.2E-05	1.72E-04	1.04E-04	2.9E-05	1.30E-04
1500	1.5E-05	2.5E-05	2.2E-05	1.5E-05	3.4E-05	1.63E-04	9.4E-05	1.8E-05	9.67E-05
2000	1.0E-05	1.7E-05	1.5E-05	1.0E-05	2.4E-05	1.59E-04	8.9E-05	1.3E-05	8.00E-05
2500	7.7E-06	1.3E-05	1.1E-05	7.7E-06	1.8E-05	1.51E-04	8.3E-05	1.1E-05	6.89E-05
3000	6.4E-06	1.1E-05	9.5E-06	6.4E-06	1.5E-05	1.39E-04	7.67E-05	9.0E-06	6.00E-05
4000	4.1E-06	7.3E-06	6.4E-06	4.1E-06	1.0E-05	1.11E-04	6.06E-05	6.17E-06	4.56E-05
5000	3.2E-06	5.6E-06	4.9E-06	3.2E-06	8.0E-06	9.17E-05	4.99E-05	4.61E-06	3.67E-05
6000	2.7E-06	4.8E-06	4.2E-06	2.7E-06	7.0E-06	7.74E-05	4.21E-05	4.01E-06	3.04E-05
7000	2.3E-06	4.1E-06	3.7E-06	2.3E-06	6.2E-06	6.85E-05	3.62E-05	3.5E-06	2.58E-05
8000	2.0E-06	3.6E-06	3.2E-06	2.0E-06	5.5E-06	5.80E-05	3.15E-05	3.0E-06	2.23E-05

NORMAL DDTF INCINERATOR 6 EMISSIONS 11/85
INDIVIDUAL RISK FR. RATE (PER 1/YEAR)

RADIONUCLIDE : SUM
ORGAN/CANCER : W BODY

PATHWAY : INTERNAL

ECTIONS:

STANCE

(ETERS):

	N	NNE	NE	ENE	E	ESE	SE	SSE
100	1.66E-03	1.60E-03	4.14E-03	7.52E-03	8.12E-03	2.13E-03	1.30E-03	1.54E-03
200	1.15E-03	1.25E-03	7.36E-03	1.68E-02	1.67E-02	5.05E-03	2.87E-03	3.85E-03
300	1.07E-03	1.62E-03	9.23E-03	1.59E-02	1.43E-02	4.51E-03	2.68E-03	3.75E-03
400	9.74E-04	1.67E-03	8.74E-03	1.27E-02	1.08E-02	3.44E-03	2.08E-03	2.95E-03
500	9.66E-04	1.68E-03	8.29E-03	1.05E-02	8.36E-03	2.64E-03	1.61E-03	2.30E-03
600	8.99E-04	1.71E-03	8.03E-03	9.11E-03	6.78E-03	2.11E-03	1.28E-03	1.83E-03
700	9.17E-04	1.72E-03	7.76E-03	8.15E-03	5.73E-03	1.74E-03	1.05E-03	1.49E-03
800	9.37E-04	1.70E-03	7.40E-03	7.38E-03	4.93E-03	1.47E-03	8.81E-04	1.24E-03
900	9.49E-04	1.68E-03	7.01E-03	6.72E-03	4.32E-03	1.27E-03	7.55E-04	1.06E-03
1000	9.58E-04	1.66E-03	6.61E-03	6.18E-03	3.84E-03	1.11E-03	6.61E-04	9.18E-04
1500	8.99E-04	1.45E-03	4.81E-03	4.17E-03	2.42E-03	6.97E-04	4.14E-04	5.78E-04
2000	8.58E-04	1.29E-03	3.72E-03	3.13E-03	1.76E-03	5.24E-04	3.19E-04	4.52E-04
2500	8.00E-04	1.14E-03	2.99E-03	2.50E-03	1.39E-03	4.35E-04	2.78E-04	3.90E-04
3000	7.35E-04	1.00E-03	2.47E-03	2.05E-03	1.14E-03	3.71E-04	2.45E-04	3.41E-04
4000	5.79E-04	7.60E-04	1.78E-03	1.47E-03	8.14E-04	2.76E-04	1.68E-04	2.59E-04
5000	4.75E-04	6.10E-04	1.38E-03	1.15E-03	6.34E-04	2.20E-04	1.54E-04	2.11E-04
6000	4.00E-04	5.04E-04	1.11E-03	9.26E-04	5.12E-04	1.82E-04	1.29E-04	1.76E-04
7000	3.43E-04	4.26E-04	9.26E-04	7.72E-04	4.26E-04	1.54E-04	1.11E-04	1.50E-04
8000	2.99E-04	3.68E-04	7.88E-04	6.58E-04	3.64E-04	1.33E-04	9.63E-05	1.30E-04
9000	2.64E-04	3.22E-04	6.83E-04	5.73E-04	3.19E-04	1.17E-04	8.55E-05	1.15E-04

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STANCE (ETERS):	S	SSW	SW	WSW	W	WNW	NW	NNW	AVG
100	2.83E-03	3.32E-03	2.43E-03	1.99E-03	2.78E-03	4.60E-03	2.56E-03	1.35E-03	3.10E-03
200	5.76E-03	6.07E-03	4.85E-03	2.82E-03	2.00E-03	2.67E-03	1.55E-03	9.29E-04	5.10E-03
300	4.87E-03	5.40E-03	5.08E-03	2.92E-03	1.76E-03	2.07E-03	1.31E-03	8.77E-04	4.84E-03
400	3.68E-03	4.21E-03	4.32E-03	2.54E-03	1.49E-03	1.69E-03	1.15E-03	8.03E-04	3.95E-03
500	1.84E-03	3.32E-03	3.57E-03	2.19E-03	1.35E-03	1.52E-03	1.08E-03	7.77E-04	3.31E-03
600	2.27E-03	2.69E-03	3.00E-03	1.94E-03	1.33E-03	1.57E-03	1.12E-03	7.97E-04	2.90E-03
700	1.87E-03	2.23E-03	2.57E-03	1.76E-03	1.37E-03	1.74E-03	1.22E-03	8.25E-04	2.63E-03
800	1.57E-03	1.89E-03	2.23E-03	1.62E-03	1.41E-03	1.92E-03	1.31E-03	8.42E-04	2.42E-03
900	1.35E-03	1.63E-03	1.97E-03	1.50E-03	1.45E-03	2.10E-03	1.38E-03	8.47E-04	2.25E-03
1000	1.18E-03	1.44E-03	1.77E-03	1.42E-03	1.49E-03	2.26E-03	1.44E-03	8.51E-04	2.11E-03
1500	7.67E-04	9.24E-04	1.20E-03	1.13E-03	1.52E-03	2.52E-03	1.48E-03	7.98E-04	1.61E-03
2000	5.91E-04	7.34E-04	9.52E-04	9.99E-04	1.56E-03	2.64E-03	1.49E-03	7.83E-04	1.36E-03
2500	5.11E-04	6.23E-04	8.10E-04	9.05E-04	1.53E-03	2.60E-03	1.44E-03	7.53E-04	1.19E-03
3000	4.42E-04	5.40E-04	7.00E-04	8.15E-04	1.44E-03	2.46E-03	1.35E-03	7.05E-04	1.05E-03
4000	3.33E-04	4.05E-04	5.25E-04	6.33E-04	1.16E-03	1.99E-03	1.08E-03	5.65E-04	8.01E-04
5000	2.65E-04	3.26E-04	4.19E-04	5.16E-04	9.67E-04	1.66E-03	9.00E-04	4.71E-04	6.47E-04
6000	2.22E-04	2.70E-04	3.47E-04	4.34E-04	8.24E-04	1.41E-03	7.64E-04	4.08E-04	5.30E-04
7000	1.88E-04	2.29E-04	2.94E-04	3.70E-04	7.10E-04	1.22E-03	6.59E-04	3.45E-04	4.58E-04
8000	1.63E-04	1.98E-04	2.54E-04	3.22E-04	6.21E-04	1.07E-03	5.76E-04	3.02E-04	3.96E-04
9000	1.44E-04	1.75E-04	2.24E-04	2.84E-04	5.52E-04	9.44E-04	5.11E-04	2.69E-04	3.49E-04

NORMAL LIFE EXPOSURE TO RADIATION
INDIVIDUAL GENETIC RISK EG. (CHILD/YEAR)

R: RADIOISOTOPES: 137CS
D: ORGAN/CELLS: AVERAGE
D: PATHWAY: INTERNAL

RECTIONS:	NI	NE	EE	E	ESE	SE	SSE
DISTANCE (METERS):							
100	5.81E-04	4.22E-04	1.14E-03	2.59E-03	3.12E-03	7.65E-04	4.27E-04
200	2.90E-04	4.14E-04	2.92E-03	7.10E-03	7.20E-03	2.16E-03	1.20E-03
300	1.97E-04	6.25E-04	2.88E-03	6.85E-03	6.70E-03	1.45E-03	1.14E-03
400	1.77E-04	6.72E-04	3.72E-03	5.49E-03	4.67E-03	1.48E-03	8.90E-04
500	1.60E-04	6.92E-04	3.55E-03	4.53E-03	3.62E-03	1.14E-03	6.89E-04
600	1.46E-04	7.12E-04	3.46E-03	3.93E-03	2.94E-03	9.08E-04	5.47E-04
700	1.34E-04	7.23E-04	3.36E-03	3.52E-03	2.48E-03	7.47E-04	4.46E-04
800	1.24E-04	7.22E-04	3.21E-03	3.20E-03	2.15E-03	6.31E-04	3.74E-04
900	1.16E-04	7.17E-04	3.95E-03	2.91E-03	1.87E-03	5.43E-04	3.20E-04
1000	1.09E-04	7.12E-04	2.87E-03	2.68E-03	1.66E-03	4.77E-04	2.79E-04
1500	7.89E-05	6.29E-04	2.10E-03	1.81E-03	1.04E-03	2.98E-04	1.74E-04
2000	5.70E-05	5.62E-04	1.62E-03	1.36E-03	7.58E-04	2.24E-04	1.35E-04
2500	4.45E-05	4.57E-04	1.31E-03	1.08E-03	5.99E-04	1.87E-04	1.18E-04
3000	3.71E-05	4.77E-04	1.08E-03	8.88E-04	4.91E-04	1.59E-04	1.04E-04
4000	2.82E-05	3.82E-04	7.78E-04	6.39E-04	3.51E-04	1.19E-04	7.99E-05
5000	2.07E-05	2.67E-04	6.03E-04	4.97E-04	2.73E-04	9.47E-05	6.57E-05
6000	1.75E-05	2.21E-04	4.86E-04	4.02E-04	2.21E-04	7.82E-05	5.52E-05
7000	1.53E-05	1.87E-04	4.04E-04	3.34E-04	1.84E-04	6.62E-05	4.74E-05
8000	1.31E-05	1.61E-04	3.44E-04	2.85E-04	1.57E-04	5.71E-05	4.13E-05
9000	1.13E-05	1.41E-04	2.98E-04	2.45E-04	1.37E-04	5.03E-05	3.67E-05

DISTANCE (METERS):	SSW	SE	WSW	W	WNW	NI	NNW	AVG
100	1.27E-03	1.25E-03	8.01E-04	6.00E-04	7.46E-04	1.22E-03	6.76E-04	3.58E-04
200	1.47E-03	2.59E-03	2.02E-03	1.11E-03	6.46E-04	7.72E-04	4.58E-04	2.92E-04
300	2.11E-03	2.33E-03	2.17E-03	1.21E-03	6.20E-04	6.47E-04	4.30E-04	3.09E-04
400	1.91E-03	1.82E-03	1.85E-03	1.06E-03	5.43E-04	5.44E-04	3.96E-04	2.97E-04
500	1.73E-03	1.43E-03	1.53E-03	9.17E-04	5.04E-04	5.12E-04	3.89E-04	2.97E-04
600	1.58E-03	1.16E-03	1.29E-03	9.17E-04	5.11E-04	5.61E-04	4.24E-04	3.14E-04
700	1.45E-03	9.62E-04	1.10E-03	7.45E-04	5.38E-04	6.55E-04	4.75E-04	3.33E-04
800	1.34E-03	8.14E-04	9.60E-04	6.86E-04	5.65E-04	7.53E-04	5.25E-04	3.45E-04
900	1.25E-03	7.02E-04	8.48E-04	6.39E-04	5.69E-04	8.42E-04	5.64E-04	3.58E-04
1000	1.18E-03	6.18E-04	7.60E-04	6.04E-04	6.13E-04	9.23E-04	5.97E-04	3.55E-04
1500	8.27E-04	4.01E-04	5.15E-04	4.83E-04	6.46E-04	1.07E-03	6.28E-04	3.39E-04
2000	7.57E-04	3.16E-04	4.10E-04	4.31E-04	6.72E-04	1.14E-03	6.41E-04	3.37E-04
2500	7.11E-04	2.68E-04	3.50E-04	3.92E-04	6.82E-04	1.13E-03	6.25E-04	3.26E-04
3000	6.91E-04	2.33E-04	3.03E-04	3.54E-04	6.27E-04	1.07E-03	5.88E-04	3.07E-04
4000	6.44E-04	1.75E-04	2.27E-04	2.76E-04	5.06E-04	8.66E-04	4.72E-04	2.46E-04
5000	6.16E-04	1.41E-04	1.82E-04	2.25E-04	4.23E-04	7.25E-04	3.93E-04	2.06E-04
6000	5.66E-05	1.17E-04	1.51E-04	1.89E-04	3.61E-04	6.17E-04	3.35E-04	1.75E-04
7000	5.18E-05	9.94E-05	1.28E-04	1.62E-04	3.11E-04	5.34E-04	2.89E-04	1.51E-04
8000	4.65E-05	8.60E-05	1.10E-04	1.41E-04	2.73E-04	4.68E-04	2.53E-04	1.33E-04

NORMAL DDTF INCINERATOR 5 EMISSIONS 10/89
INDIVIDUAL LIFETIME RISK (DEATHS)
COMP.LET

FOR RADIONUCLIDE : WLSUM
AND ORGAN/CANCER : TOTAL

AND PATHWAY : ALL

DIRECTIONS:

DISTANCE

(METERS):

	N	NNE	NE	ENE	E	ESE	SE	SSE
100	2.71E-07	3.19E-08	8.26E-08	1.50E-07	1.62E-07	4.25E-08	2.59E-08	3.06E-08
200	2.71E-07	2.50E-08	1.46E-07	3.34E-07	3.33E-07	1.00E-07	5.70E-08	7.62E-08
300	2.71E-08	3.22E-08	1.84E-07	3.17E-07	2.84E-07	8.97E-08	5.33E-08	7.43E-08
400	1.74E-08	3.52E-08	1.74E-07	2.53E-07	2.14E-07	6.83E-08	4.14E-08	5.86E-08
500	1.74E-08	3.35E-08	1.65E-07	2.09E-07	1.66E-07	5.25E-08	3.21E-08	4.57E-08
600	1.74E-08	3.39E-08	1.60E-07	1.81E-07	1.35E-07	4.19E-08	2.55E-08	3.64E-08
700	1.74E-08	3.41E-08	1.54E-07	1.62E-07	1.14E-07	3.45E-08	2.09E-08	2.96E-08
800	1.74E-08	3.38E-08	1.47E-07	1.47E-07	9.80E-08	2.92E-08	1.75E-08	2.47E-08
900	1.74E-08	3.34E-08	1.39E-07	1.34E-07	8.58E-08	2.52E-08	1.50E-08	2.10E-08
1000	1.74E-08	3.31E-08	1.31E-07	1.23E-07	7.63E-08	2.21E-08	1.31E-08	1.83E-08
1500	1.74E-08	2.89E-08	9.57E-08	8.30E-08	4.81E-08	1.39E-08	8.23E-09	1.15E-08
2000	1.74E-08	2.57E-08	7.40E-08	6.22E-08	3.44E-08	1.04E-08	6.35E-09	8.99E-09
2500	1.74E-08	2.27E-08	5.95E-08	4.96E-08	2.76E-08	8.65E-09	5.54E-09	7.76E-09
3000	1.74E-08	1.99E-08	4.90E-08	4.07E-08	2.26E-08	7.38E-09	4.88E-09	6.78E-09
4000	1.74E-08	1.51E-08	3.55E-08	2.83E-08	1.62E-08	5.48E-09	3.73E-09	5.15E-09
5000	1.74E-08	1.11E-08	2.75E-08	2.22E-08	1.26E-08	4.38E-09	3.06E-09	4.19E-09
6000	1.74E-08	1.00E-08	2.21E-08	1.84E-08	1.02E-08	3.61E-09	2.57E-09	3.49E-09
7000	6.82E-09	8.48E-09	1.84E-08	1.53E-08	8.48E-09	3.06E-09	2.20E-09	2.98E-09
8000	5.09E-09	7.31E-09	1.57E-08	1.31E-08	7.25E-09	2.64E-09	1.92E-09	2.59E-09
9000	5.09E-09	6.40E-09	1.36E-08	1.14E-08	6.34E-09	2.32E-09	1.70E-09	2.28E-09

E-29

	S	SSW	SW	WSW	W	WNW	NW	NNW	AVG
DISTANCE									
(METERS):									
100	5.06E-08	4.61E-08	4.25E-08	3.93E-08	5.05E-08	9.18E-08	5.10E-08	2.70E-08	6.17E-08
200	1.14E-07	1.01E-07	9.65E-08	9.61E-08	3.99E-08	5.32E-08	3.08E-08	1.81E-08	1.01E-07
300	5.60E-08	1.47E-07	1.01E-07	5.82E-08	3.50E-08	4.14E-08	2.62E-08	1.75E-08	9.62E-08
400	7.71E-08	8.28E-08	8.59E-08	2.96E-08	2.98E-08	3.37E-08	2.29E-08	1.65E-08	7.86E-08
500	5.60E-08	5.60E-08	7.10E-08	4.35E-08	2.69E-08	3.04E-08	2.15E-08	1.55E-08	6.58E-08
600	5.60E-08	5.75E-08	5.94E-08	3.87E-08	2.65E-08	3.13E-08	2.24E-08	1.59E-08	5.78E-08
700	5.71E-08	4.44E-08	5.10E-08	3.50E-08	2.72E-08	3.46E-08	2.42E-08	1.64E-08	5.23E-08
800	5.17E-08	3.76E-08	4.44E-08	3.22E-08	2.80E-08	3.83E-08	2.60E-08	1.68E-08	4.81E-08
900	5.75E-08	3.25E-08	3.92E-08	2.99E-08	2.88E-08	4.17E-08	2.75E-08	1.68E-08	4.47E-08
1000	5.75E-08	2.86E-08	3.52E-08	2.82E-08	2.96E-08	4.49E-08	2.87E-08	1.69E-08	4.20E-08
1500	1.31E-08	1.56E-08	2.38E-08	2.24E-08	3.03E-08	5.00E-08	2.94E-08	1.55E-08	3.20E-08
2000	1.11E-08	1.46E-08	1.89E-08	1.75E-08	3.11E-08	5.25E-08	2.96E-08	1.56E-08	2.71E-08
2500	1.11E-08	1.34E-08	1.61E-08	1.80E-08	3.04E-08	5.17E-08	2.87E-08	1.50E-08	2.37E-08
3000	1.74E-09	1.37E-08	1.39E-08	1.62E-08	2.87E-08	4.90E-08	2.69E-08	1.48E-08	2.09E-08
4000	5.67E-09	8.35E-09	1.04E-08	1.26E-08	2.31E-08	3.55E-08	2.15E-08	1.12E-08	1.59E-08
5000	5.34E-09	6.49E-09	8.33E-09	1.35E-08	1.92E-08	3.29E-08	1.79E-08	9.36E-09	1.29E-08
6000	5.43E-09	5.77E-09	6.90E-09	2.62E-09	1.64E-08	2.89E-08	1.92E-08	7.95E-09	1.07E-08
7000	5.74E-09	4.76E-09	5.25E-09	7.3E-09	1.41E-08	2.42E-08	1.31E-08	6.84E-09	9.10E-09
8000	5.74E-09	4.95E-09	5.05E-09	6.4E-09	1.44E-08	2.12E-08	1.14E-08	6.01E-09	7.86E-09
9000	5.74E-09	4.48E-09	4.45E-09	5.8E-09	1.10E-08	1.88E-08	1.02E-08	5.35E-09	6.93E-09

E-30

L	L	N	N	L	888	999	SSSS	III	X	X	QQQ	H	H	000	U	U	TTTT	::	333						
L	L	N	N	L	8	8	9	9	S	I	X	X	Q	Q	H	H	0	0	U	U	T	::	3	3	
L	L	NN	N	L	8	8	9	9	S	I	X	X	Q	Q	H	H	0	0	U	U	T			3	
L	L	N	N	N	L	888	9999	SSS	I	X	Q	Q	HHHHH	0	0	U	U	T	::				3		
L	L	N	NN	L	8	8	9		S	I	X	X	Q	Q	Q	H	H	0	0	U	U	T	::		3
L	L	N	N	L	8	8	9		S	I	X	X	Q	Q	H	H	0	0	U	U	T	:		3	3
LLLLL	LLLLL	N	N	LLLLL	888	999	SSSS	III	X	X	QQ	Q	H	H	000	UUUUU	T	:						333	

FILE _DUB0:RUSRO.POGALLAJ0.NEWSIC!LLNL89_SIXGH.OUT;3 (1577,26,0), LAST REVISED ON 14-NOV-1989 17:58, IS A 825 BLOCK SEQUENTIAL I
OWNED BY UIC #300,113!. THE RECORDS ARE VARIABLE LENGTH WITH FORTRAN (FTN) CARRIAGE CONTROL. THE LONGEST RECORD IS 132 BYTES.

DR LLNL89_SIXGH (137) QUEUED TO SYS\$PRINT ON 22-NOV-1989 13:10 BY USER ROGALLAJ0, UIC #300,113!, UNDER ACCOUNT MODEL AT PRIORITY
10, STARTED ON PRINTER _LPAG: ON 22-NOV-1989 13:10 FROM QUEUE SYS\$PRINT.

OUTPUT OF AIRLOS-EPA COMPUTER CODE

OPTIONS SELECTED--

RADIONUCLIDE CONCENTRATIONS ARE LISTED FOR DIRECTION AND DISTANCE FROM FACILITY

RADIONUCLIDE CONCENTRATIONS LISTED ARE SECTOR-AVERAGED VALUES
PLUME RISE IS COMPUTED FOR BUOYANT PLUMES BY BRIGGS EQUATIONS
THE CHI/Q TABLES ARE NOT PRINTED

METEOROLOGICAL AND PLANT INFORMATION SUPPLIED TO PROGRAM----

AVERAGE AIR TEMPERATURE (DEG K)	288.3
AVERAGE VERTICAL TEMPERATURE GRADIENT OF THE AIR (DEG K/METER)	
IN STABILITY CLASS E	0.0728
IN STABILITY CLASS F	0.1090
IN STABILITY CLASS G	0.1455
RAINFALL RATE (CM/YEAR)	36.60
HEIGHT OF LID (METERS)	500
NUMBER OF STACKS IN THE PLANT	1

STACK INFORMATION--

	STACK NUMBER					
	1	2	3	4	5	6
HEIGHT (METERS)	11.7000					
DIAMETER (METERS)	0.4600					
EFFLUENT VELOCITY (METERS/SEC)	6.0300					
RATE OF HEAT EMISSION (CAL/SECOND)	0.11E+06					

RELEASE RATES FOR RADIONUCLIDES

STACK	NUCLIDE	RELEASE RATE (CURIES/YEAR)
1	C-14	0.200E+00
1	H-3	0.300E+01
1	I-125	0.100E-01
1	I-131	0.100E-01
1	P-32	0.300E+00
1	S-35	0.500E+00

PLUME DEPLETION AND DEPOSITION PARAMETERS

NUCLIDE	GRAVITATIONAL FALL VELOCITY (METERS/SEC)	DEPOSITION VELOCITY (METERS/SEC)	SCAVENGING COEFFICIENT (1/SEC)	EFFECTIVE DECAY CONSTANT IN PLUME (PER DAY)
C-14	0.000	0.00000	0.123E-05	0.000E+00
H-3	0.000	0.00000	0.123E-05	0.000E+00
I-125	0.000	0.00050	0.123E-05	0.115E-01
I-131	0.000	0.00050	0.123E-05	0.862E-01
P-32	0.000	0.00050	0.123E-05	0.485E-01
S-35	0.000	0.00050	0.123E-05	0.000E+00

FREQUENCY OF ATMOSPHERIC STABILITY CLASSES FOR EACH DIRECTION

SECTOR	FRACTION OF TIME IN EACH STABILITY CLASS						
	A	B	C	D	E	F	G
1	0.0652	0.0208	0.0213	0.0517	0.2868	0.5502	0.0000
2	0.0516	0.0177	0.0220	0.0277	0.2459	0.6351	0.0000
3	0.0381	0.0144	0.0165	0.0180	0.2746	0.6384	0.0000
4	0.0223	0.0054	0.0110	0.0196	0.2620	0.6798	0.0000
5	0.0354	0.0206	0.0278	0.0338	0.2307	0.6517	0.0000
6	0.0705	0.0429	0.1301	0.1730	0.1937	0.3897	0.0000
7	0.1055	0.0973	0.2794	0.1677	0.1216	0.2286	0.0000
8	0.1678	0.1424	0.2346	0.1384	0.1067	0.2100	0.0000
9	0.1925	0.1109	0.1839	0.1477	0.1752	0.1898	0.0000
10	0.3287	0.1301	0.1292	0.0856	0.0783	0.2492	0.0000
11	0.4783	0.1302	0.0849	0.0544	0.0344	0.2177	0.0000
12	0.2961	0.0746	0.2174	0.1250	0.1296	0.1572	0.0000
13	0.1459	0.1174	0.3136	0.1261	0.2073	0.0837	0.0000
14	0.1100	0.0908	0.2129	0.1289	0.3498	0.1076	0.0000
15	0.0356	0.0240	0.0839	0.2258	0.4754	0.1493	0.0000
16	0.0600	0.0209	0.0283	0.0992	0.3370	0.4545	0.0000

FREQUENCIES OF WIND DIRECTIONS AND RECIPROCAL-AVERAGED WIND SPEEDS

WIND TOWARD	FREQUENCY	WIND SPEEDS FOR EACH STABILITY CLASS (METERS/SEC)						
		A	B	C	D	E	F	G
1	0.028	0.83	0.91	1.11	1.44	0.98	0.83	0.00
2	0.026	0.82	0.77	1.02	1.57	0.95	0.79	0.00
3	0.048	0.82	0.84	0.95	1.00	0.87	0.80	0.00
4	0.086	0.84	1.00	1.06	0.94	0.84	0.80	0.00
5	0.054	0.90	1.04	1.20	1.33	0.97	0.81	0.00
6	0.042	1.03	1.31	2.07	2.64	1.22	0.84	0.00
7	0.049	1.02	1.97	1.96	2.33	1.36	0.85	0.00
8	0.044	1.14	2.14	2.24	2.52	1.84	0.88	0.00
9	0.040	1.04	2.29	2.86	3.33	3.43	0.91	0.00
10	0.024	0.94	1.27	1.61	1.43	1.99	0.88	0.00
11	0.018	0.93	1.10	0.92	0.86	1.06	0.82	0.00
12	0.031	0.99	1.29	2.40	2.83	1.66	0.89	0.00
13	0.127	1.13	2.28	3.19	3.84	2.23	1.01	0.00
14	0.168	1.02	1.85	2.38	3.57	1.98	1.00	0.00
15	0.171	0.85	1.27	1.96	3.89	2.15	1.10	0.00
16	0.044	0.78	0.91	1.10	2.44	1.46	1.05	0.00

WIND DIRECTIONS ARE NUMBERED COUNTERCLOCKWISE STARTING AT 1 FOR DUE NORTH

FREQUENCIES OF WIND DIRECTIONS AND TRUE-AVERAGE WIND SPEEDS

WIND TOWARD	FREQUENCY	WIND SPEEDS FOR EACH STABILITY CLASS (METERS/SEC)						
		A	B	C	D	E	F	G
1	0.028	0.95	1.37	1.93	2.94	1.50	0.96	0.00
2	0.026	0.93	0.77	1.49	4.90	1.89	0.85	0.00
3	0.048	0.92	0.97	1.59	2.07	1.28	0.85	0.00
4	0.086	0.99	1.37	1.75	1.70	1.07	0.86	0.00
5	0.054	1.13	1.63	1.93	2.16	1.38	0.89	0.00
6	0.042	1.42	1.99	3.08	3.68	1.94	0.97	0.00
7	0.049	1.39	2.51	2.87	3.12	2.15	1.02	0.00
8	0.044	1.61	2.63	3.44	4.17	3.89	1.09	0.00
9	0.040	1.43	3.22	4.22	6.91	6.21	1.20	0.00
10	0.024	1.23	2.10	3.23	4.05	4.22	1.11	0.00
11	0.018	1.20	1.69	1.43	1.40	1.56	0.91	0.00
12	0.031	1.34	2.24	3.89	4.40	2.67	1.11	0.00
13	0.127	1.58	2.67	4.07	4.65	2.98	1.38	0.00
14	0.168	1.40	2.48	3.52	4.66	2.84	1.36	0.00
15	0.171	1.00	1.92	3.14	4.99	3.26	1.72	0.00
16	0.044	0.80	1.22	1.81	4.30	2.66	1.55	0.00

WIND DIRECTIONS ARE NUMBERED COUNTERCLOCKWISE STARTING AT 1 FOR DUE NORTH

ESTIMATED RADIONUCLIDE CONCENTRATIONS

AREA		NUCLIDE	AIR CONCEN (PCI/CM**3)	DRY DEP RATE (PCI/CM**2/S)	WET DEP RATE (PCI/CM**2/S)	GND DEP RATE (PCI/CM**2/S)	EFF REL R (PCI/S)
ND	TOWARD DISTANCE (METERS)						
1	100	C-14	3.52E-11	0.00E+00	6.03E-10	6.03E-10	1.75E+0
1	100	H-3	5.28E-10	0.00E+00	9.05E-09	9.05E-09	2.63E+0
1	100	I-125	1.76E-12	8.85E-14	3.02E-11	3.02E-11	8.75E+0
1	100	I-131	1.76E-12	8.85E-14	3.02E-11	3.02E-11	8.75E+0
1	100	P-32	5.28E-11	2.65E-12	9.05E-10	9.07E-10	2.63E+0
1	100	S-35	8.80E-11	4.42E-12	1.51E-09	1.51E-09	4.38E+0
1	200	C-14	7.82E-10	0.00E+00	3.02E-10	3.02E-10	1.75E+0
1	200	H-3	1.17E-08	0.00E+00	4.52E-09	4.52E-09	2.62E+0
1	200	I-125	3.91E-11	1.96E-12	1.51E-11	1.70E-11	8.75E+0
1	200	I-131	3.91E-11	1.96E-12	1.51E-11	1.70E-11	8.75E+0
1	200	P-32	1.17E-09	5.89E-11	4.52E-10	5.11E-10	2.62E+0
1	200	S-35	1.95E-09	9.82E-11	7.54E-10	8.52E-10	4.37E+0
1	300	C-14	1.28E-09	0.00E+00	2.01E-10	2.01E-10	1.75E+0
1	300	H-3	1.92E-08	0.00E+00	3.02E-09	3.02E-09	2.62E+0
1	300	I-125	6.41E-11	3.22E-12	1.00E-11	1.33E-11	8.75E+0
1	300	I-131	6.41E-11	3.22E-12	1.00E-11	1.33E-11	8.75E+0
1	300	P-32	1.92E-09	9.67E-11	3.01E-10	3.98E-10	2.62E+0
1	300	S-35	3.21E-09	1.61E-10	5.02E-10	6.64E-10	4.37E+0
1	400	C-14	1.32E-09	0.00E+00	1.51E-10	1.51E-10	1.75E+0
1	400	H-3	1.98E-08	0.00E+00	2.26E-09	2.26E-09	2.62E+0
1	400	I-125	6.61E-11	3.32E-12	7.54E-12	1.09E-11	8.75E+0
1	400	I-131	6.61E-11	3.32E-12	7.54E-12	1.09E-11	8.75E+0
1	400	P-32	1.98E-09	9.96E-11	2.26E-10	3.26E-10	2.62E+0
1	400	S-35	3.30E-09	1.66E-10	3.77E-10	5.43E-10	4.37E+0
1	500	C-14	1.32E-09	0.00E+00	1.21E-10	1.21E-10	1.75E+0
1	500	H-3	1.98E-08	0.00E+00	1.81E-09	1.81E-09	2.62E+0
1	500	I-125	6.61E-11	3.32E-12	6.03E-12	9.35E-12	8.74E+0
1	500	I-131	6.61E-11	3.32E-12	6.03E-12	9.35E-12	8.74E+0
1	500	P-32	1.98E-09	9.96E-11	1.81E-10	2.80E-10	2.62E+0
1	500	S-35	3.30E-09	1.66E-10	3.01E-10	4.67E-10	4.37E+0
1	600	C-14	1.40E-09	0.00E+00	1.00E-10	1.00E-10	1.75E+0
1	600	H-3	2.10E-08	0.00E+00	1.51E-09	1.51E-09	2.62E+0
1	600	I-125	6.99E-11	3.51E-12	5.02E-12	8.53E-12	8.74E+0
1	600	I-131	6.99E-11	3.51E-12	5.02E-12	8.53E-12	8.74E+0
1	600	P-32	2.10E-09	1.05E-10	1.51E-10	2.56E-10	2.62E+0
1	600	S-35	3.50E-09	1.76E-10	2.51E-10	4.27E-10	4.37E+0
1	700	C-14	1.51E-09	0.00E+00	8.61E-11	8.61E-11	1.75E+0
1	700	H-3	2.26E-08	0.00E+00	1.29E-09	1.29E-09	2.62E+0
1	700	I-125	7.52E-11	3.78E-12	4.30E-12	8.08E-12	8.74E+0
1	700	I-131	7.52E-11	3.78E-12	4.30E-12	8.08E-12	8.74E+0
1	700	P-32	2.26E-09	1.13E-10	1.29E-10	2.42E-10	2.62E+0
1	700	S-35	3.76E-09	1.89E-10	2.15E-10	4.04E-10	4.37E+0
1	800	C-14	1.59E-09	0.00E+00	7.53E-11	7.53E-11	1.75E+0
1	800	H-3	2.39E-08	0.00E+00	1.13E-09	1.13E-09	2.62E+0
1	800	I-125	7.96E-11	4.00E-12	3.76E-12	7.76E-12	8.74E+0
1	800	I-131	7.96E-11	4.00E-12	3.76E-12	7.76E-12	8.74E+0
1	800	P-32	2.39E-09	1.20E-10	1.13E-10	2.33E-10	2.62E+0

1	900	P-32	2.48E-09	1.25E-10	1.00E-10	2.25E-10	2.62E+00
1	900	S-35	4.14E-09	2.08E-10	1.67E-10	3.75E-10	4.37E+00
1	1000	C-14	1.71E-09	0.00E+00	6.03E-11	6.03E-11	1.75E+00
1	1000	H-3	2.57E-08	0.00E+00	9.04E-10	9.04E-10	2.62E+00
1	1000	I-125	8.54E-11	4.29E-12	3.01E-12	7.30E-12	8.73E+00
1	1000	I-131	8.54E-11	4.29E-12	3.01E-12	7.30E-12	8.73E+00
1	1000	P-32	2.56E-09	1.29E-10	9.03E-11	2.19E-10	2.62E+00
1	1000	S-35	4.27E-09	2.14E-10	1.50E-10	3.65E-10	4.37E+00
1	1500	C-14	1.68E-09	0.00E+00	4.01E-11	4.01E-11	1.75E+00
1	1500	H-3	2.52E-08	0.00E+00	6.02E-10	6.02E-10	2.62E+00
1	1500	I-125	8.37E-11	4.21E-12	2.00E-12	6.21E-12	8.72E+00
1	1500	I-131	8.37E-11	4.21E-12	2.00E-12	6.21E-12	8.72E+00
1	1500	P-32	2.51E-09	1.26E-10	6.01E-11	1.86E-10	2.61E+00
1	1500	S-35	4.19E-09	2.10E-10	1.00E-10	3.10E-10	4.36E+00
1	2000	C-14	1.64E-09	0.00E+00	3.01E-11	3.01E-11	1.75E+00
1	2000	H-3	2.46E-08	0.00E+00	4.51E-10	4.51E-10	2.62E+00
1	2000	I-125	8.17E-11	4.10E-12	1.50E-12	5.60E-12	8.69E+00
1	2000	I-131	8.17E-11	4.10E-12	1.50E-12	5.60E-12	8.69E+00
1	2000	P-32	2.45E-09	1.23E-10	4.50E-11	1.68E-10	2.61E+00
1	2000	S-35	4.08E-09	2.05E-10	7.49E-11	2.80E-10	4.35E+00
1	2500	C-14	1.56E-09	0.00E+00	2.41E-11	2.41E-11	1.74E+00
1	2500	H-3	2.34E-08	0.00E+00	3.61E-10	3.61E-10	2.62E+00
1	2500	I-125	7.73E-11	3.88E-12	1.20E-12	5.08E-12	8.67E+00
1	2500	I-131	7.73E-11	3.88E-12	1.20E-12	5.08E-12	8.67E+00
1	2500	P-32	2.32E-09	1.17E-10	3.59E-11	1.52E-10	2.60E+00
1	2500	S-35	3.87E-09	1.94E-10	5.98E-11	2.54E-10	4.33E+00
1	3000	C-14	1.44E-09	0.00E+00	2.00E-11	2.00E-11	1.74E+00
1	3000	H-3	2.16E-08	0.00E+00	3.01E-10	3.01E-10	2.62E+00
1	3000	I-125	7.12E-11	3.58E-12	9.93E-13	4.57E-12	8.64E+00
1	3000	I-131	7.12E-11	3.58E-12	9.93E-13	4.57E-12	8.64E+00
1	3000	P-32	2.14E-09	1.07E-10	2.98E-11	1.37E-10	2.59E+00
1	3000	S-35	3.56E-09	1.79E-10	4.97E-11	2.29E-10	4.32E+00
1	4000	C-14	1.14E-09	0.00E+00	1.50E-11	1.50E-11	1.74E+00
1	4000	H-3	1.71E-08	0.00E+00	2.25E-10	2.25E-10	2.61E+00
1	4000	I-125	5.61E-11	2.82E-12	7.40E-13	3.56E-12	8.59E+00
1	4000	I-131	5.61E-11	2.82E-12	7.40E-13	3.56E-12	8.59E+00
1	4000	P-32	1.68E-09	8.46E-11	2.22E-11	1.07E-10	2.58E+00
1	4000	S-35	2.81E-09	1.41E-10	3.70E-11	1.78E-10	4.29E+00
1	5000	C-14	9.40E-10	0.00E+00	1.20E-11	1.20E-11	1.74E+00
1	5000	H-3	1.41E-08	0.00E+00	1.80E-10	1.80E-10	2.61E+00
1	5000	I-125	4.61E-11	2.31E-12	5.88E-13	2.90E-12	8.53E+00
1	5000	I-131	4.61E-11	2.31E-12	5.88E-13	2.90E-12	8.53E+00
1	5000	P-32	1.38E-09	6.94E-11	1.77E-11	8.71E-11	2.56E+00
1	5000	S-35	2.30E-09	1.16E-10	2.94E-11	1.45E-10	4.27E+00
1	6000	C-14	7.94E-10	0.00E+00	9.98E-12	9.98E-12	1.74E+00
1	6000	H-3	1.19E-08	0.00E+00	1.50E-10	1.50E-10	2.61E+00
1	6000	I-125	3.87E-11	1.94E-12	4.87E-13	2.43E-12	8.48E+00
1	6000	I-131	3.87E-11	1.94E-12	4.87E-13	2.43E-12	8.48E+00
1	6000	P-32	1.16E-09	5.83E-11	1.46E-11	7.29E-11	2.54E+00
1	6000	S-35	1.93E-09	9.72E-11	2.43E-11	1.22E-10	4.24E+00
1	7000	C-14	6.83E-10	0.00E+00	8.54E-12	8.54E-12	1.74E+00
1	7000	H-3	1.02E-08	0.00E+00	1.28E-10	1.28E-10	2.60E+00
1	7000	I-125	3.31E-11	1.66E-12	4.14E-13	2.08E-12	8.42E+00
1	7000	I-131	3.31E-11	1.66E-12	4.14E-13	2.08E-12	8.42E+00
1	7000	P-32	9.92E-10	4.98E-11	1.24E-11	6.23E-11	2.52E+00
1	7000	S-35	1.65E-09	8.31E-11	2.07E-11	1.04E-10	4.21E+00
1	8000	C-14	5.97E-10	0.00E+00	7.47E-12	7.47E-12	1.73E+00

1	8000	P-32	8.62E-10	4.33E-11	1.08E-11	5.41E-11	2.51E+0
1	8000	S-35	1.44E-09	7.22E-11	1.80E-11	9.02E-11	4.18E+0
1	9000	C-14	5.28E-10	0.00E+00	6.63E-12	6.63E-12	1.73E+0
1	9000	H-3	7.92E-09	0.00E+00	9.94E-11	9.94E-11	2.60E+0
1	9000	I-125	2.53E-11	1.27E-12	3.18E-13	1.59E-12	8.31E+0
1	9000	I-131	2.53E-11	1.27E-12	3.18E-13	1.59E-12	8.31E+0
1	9000	P-32	7.58E-10	3.81E-11	9.54E-12	4.76E-11	2.49E+0
1	9000	S-35	1.26E-09	6.34E-11	1.59E-11	7.93E-11	4.15E+0
2	100	C-14	2.02E-11	0.00E+00	6.02E-10	6.02E-10	1.65E+0
2	100	H-3	3.03E-10	0.00E+00	9.03E-09	9.03E-09	2.47E+0
2	100	I-125	1.01E-12	5.07E-14	3.01E-11	3.02E-11	8.24E+0
2	100	I-131	1.01E-12	5.07E-14	3.01E-11	3.02E-11	8.24E+0
2	100	P-32	3.03E-11	1.52E-12	9.03E-10	9.05E-10	2.47E+0
2	100	S-35	5.04E-11	2.53E-12	1.51E-09	1.51E-09	4.12E+0
2	200	C-14	5.32E-10	0.00E+00	3.01E-10	3.01E-10	1.65E+0
2	200	H-3	7.98E-09	0.00E+00	4.52E-09	4.52E-09	2.47E+0
2	200	I-125	2.66E-11	1.34E-12	1.50E-11	1.64E-11	8.24E+0
2	200	I-131	2.66E-11	1.34E-12	1.50E-11	1.64E-11	8.24E+0
2	200	P-32	7.98E-10	4.01E-11	4.51E-10	4.92E-10	2.47E+0
2	200	S-35	1.33E-09	6.68E-11	7.52E-10	8.19E-10	4.12E+0
2	300	C-14	8.91E-10	0.00E+00	2.01E-10	2.01E-10	1.65E+0
2	300	H-3	1.34E-08	0.00E+00	3.01E-09	3.01E-09	2.47E+0
2	300	I-125	4.46E-11	2.24E-12	1.00E-11	1.23E-11	8.24E+0
2	300	I-131	4.46E-11	2.24E-12	1.00E-11	1.23E-11	8.24E+0
2	300	P-32	1.34E-09	6.72E-11	3.01E-10	3.68E-10	2.47E+0
2	300	S-35	2.23E-09	1.12E-10	5.02E-10	6.13E-10	4.12E+0
2	400	C-14	9.70E-10	0.00E+00	1.50E-10	1.50E-10	1.65E+0
2	400	H-3	1.46E-08	0.00E+00	2.26E-09	2.26E-09	2.47E+0
2	400	I-125	4.85E-11	2.44E-12	7.52E-12	9.96E-12	8.24E+0
2	400	I-131	4.85E-11	2.44E-12	7.52E-12	9.96E-12	8.24E+0
2	400	P-32	1.45E-09	7.31E-11	2.26E-10	2.99E-10	2.47E+0
2	400	S-35	2.42E-09	1.22E-10	3.76E-10	4.98E-10	4.12E+0
2	500	C-14	1.05E-09	0.00E+00	1.20E-10	1.20E-10	1.65E+0
2	500	H-3	1.58E-08	0.00E+00	1.81E-09	1.81E-09	2.47E+0
2	500	I-125	5.26E-11	2.64E-12	6.02E-12	8.66E-12	8.24E+0
2	500	I-131	5.26E-11	2.64E-12	6.02E-12	8.66E-12	8.24E+0
2	500	P-32	1.58E-09	7.93E-11	1.80E-10	2.60E-10	2.47E+0
2	500	S-35	2.63E-09	1.32E-10	3.01E-10	4.33E-10	4.12E+0
2	600	C-14	1.19E-09	0.00E+00	1.00E-10	1.00E-10	1.65E+0
2	600	H-3	1.78E-08	0.00E+00	1.50E-09	1.50E-09	2.47E+0
2	600	I-125	5.93E-11	2.98E-12	5.01E-12	7.99E-12	8.24E+0
2	600	I-131	5.93E-11	2.98E-12	5.01E-12	7.99E-12	8.24E+0
2	600	P-32	1.78E-09	6.94E-11	1.50E-10	2.40E-10	2.47E+0
2	600	S-35	2.97E-09	1.49E-10	2.51E-10	4.00E-10	4.12E+0
2	700	C-14	1.31E-09	0.00E+00	8.59E-11	8.59E-11	1.65E+0
2	700	H-3	1.97E-08	0.00E+00	1.29E-09	1.29E-09	2.47E+0
2	700	I-125	6.56E-11	3.30E-12	4.30E-12	7.59E-12	8.23E+0
2	700	I-131	6.56E-11	3.30E-12	4.30E-12	7.59E-12	8.23E+0
2	700	P-32	1.97E-09	9.89E-11	1.29E-10	2.28E-10	2.47E+0
2	700	S-35	3.28E-09	1.65E-10	2.15E-10	3.80E-10	4.12E+0
2	800	C-14	1.40E-09	0.00E+00	7.52E-11	7.52E-11	1.65E+0
2	800	H-3	2.10E-08	0.00E+00	1.13E-09	1.13E-09	2.47E+0
2	800	I-125	6.98E-11	3.51E-12	3.76E-12	7.27E-12	8.23E+0
2	800	I-131	6.98E-11	3.51E-12	3.76E-12	7.27E-12	8.23E+0
2	800	P-32	2.10E-09	1.05E-10	1.13E-10	2.18E-10	2.47E+0

2	900	F-32	2.17E-09	1.09E-10	1.00E-10	2.09E-10	2.47E+02
2	900	S-35	3.62E-09	1.82E-10	1.67E-10	3.49E-10	4.11E+02
2	1000	C-14	1.49E-09	0.00E+00	6.01E-11	6.01E-11	1.65E+02
2	1000	H-3	2.23E-08	0.00E+00	9.02E-10	9.02E-10	2.47E+03
2	1000	I-125	7.41E-11	3.72E-12	3.00E-12	6.73E-12	8.23E+00
2	1000	I-131	7.41E-11	3.72E-12	3.00E-12	6.73E-12	8.23E+00
2	1000	P-32	2.22E-09	1.12E-10	9.01E-11	2.02E-10	2.47E+02
2	1000	S-35	3.71E-09	1.86E-10	1.50E-10	3.36E-10	4.11E+02
2	1500	C-14	1.47E-09	0.00E+00	4.01E-11	4.01E-11	1.65E+02
2	1500	H-3	2.21E-08	0.00E+00	6.01E-10	6.01E-10	2.47E+03
2	1500	I-125	7.33E-11	3.68E-12	2.00E-12	5.68E-12	8.21E+00
2	1500	I-131	7.33E-11	3.68E-12	2.00E-12	5.68E-12	8.21E+00
2	1500	P-32	2.20E-09	1.11E-10	6.00E-11	1.70E-10	2.46E+02
2	1500	S-35	3.67E-09	1.84E-10	1.00E-10	2.84E-10	4.10E+02
2	2000	C-14	1.49E-09	0.00E+00	3.00E-11	3.00E-11	1.64E+02
2	2000	H-3	2.23E-08	0.00E+00	4.50E-10	4.50E-10	2.47E+03
2	2000	I-125	7.41E-11	3.72E-12	1.50E-12	5.22E-12	8.19E+00
2	2000	I-131	7.41E-11	3.72E-12	1.50E-12	5.22E-12	8.19E+00
2	2000	P-32	2.22E-09	1.12E-10	4.49E-11	1.57E-10	2.46E+02
2	2000	S-35	3.71E-09	1.86E-10	7.48E-11	2.61E-10	4.10E+02
2	2500	C-14	1.46E-09	0.00E+00	2.40E-11	2.40E-11	1.64E+02
2	2500	H-3	2.19E-08	0.00E+00	3.60E-10	3.60E-10	2.46E+03
2	2500	I-125	7.24E-11	3.64E-12	1.19E-12	4.83E-12	8.17E+00
2	2500	I-131	7.24E-11	3.64E-12	1.19E-12	4.83E-12	8.17E+00
2	2500	P-32	2.17E-09	1.09E-10	3.58E-11	1.45E-10	2.45E+02
2	2500	S-35	3.62E-09	1.82E-10	5.97E-11	2.41E-10	4.08E+02
2	3000	C-14	1.38E-09	0.00E+00	2.00E-11	2.00E-11	1.64E+02
2	3000	H-3	2.07E-08	0.00E+00	3.00E-10	3.00E-10	2.46E+03
2	3000	I-125	6.82E-11	3.43E-12	9.91E-13	4.42E-12	8.14E+00
2	3000	I-131	6.82E-11	3.43E-12	9.91E-13	4.42E-12	8.14E+00
2	3000	P-32	2.05E-09	1.03E-10	2.97E-11	1.33E-10	2.44E+02
2	3000	S-35	3.41E-09	1.71E-10	4.96E-11	2.21E-10	4.07E+02
2	4000	C-14	1.11E-09	0.00E+00	1.50E-11	1.50E-11	1.64E+02
2	4000	H-3	1.67E-08	0.00E+00	2.25E-10	2.25E-10	2.46E+03
2	4000	I-125	5.48E-11	2.75E-12	7.38E-13	3.49E-12	8.09E+00
2	4000	I-131	5.48E-11	2.75E-12	7.38E-13	3.49E-12	8.09E+00
2	4000	P-32	1.64E-09	8.25E-11	2.22E-11	1.05E-10	2.43E+02
2	4000	S-35	2.74E-09	1.38E-10	3.69E-11	1.74E-10	4.04E+02
2	5000	C-14	9.29E-10	0.00E+00	1.20E-11	1.20E-11	1.64E+02
2	5000	H-3	1.39E-08	0.00E+00	1.79E-10	1.79E-10	2.46E+03
2	5000	I-125	4.55E-11	2.29E-12	5.87E-13	2.88E-12	8.03E+00
2	5000	I-131	4.55E-11	2.29E-12	5.87E-13	2.88E-12	8.03E+00
2	5000	P-32	1.37E-09	6.86E-11	1.76E-11	8.63E-11	2.41E+02
2	5000	S-35	2.28E-09	1.14E-10	2.93E-11	1.44E-10	4.02E+02
2	6000	C-14	7.92E-10	0.00E+00	9.95E-12	9.95E-12	1.64E+02
2	6000	H-3	1.19E-08	0.00E+00	1.49E-10	1.49E-10	2.45E+03
2	6000	I-125	3.86E-11	1.94E-12	4.85E-13	2.42E-12	7.97E+00
2	6000	I-131	3.86E-11	1.94E-12	4.85E-13	2.42E-12	7.97E+00
2	6000	P-32	1.16E-09	5.82E-11	1.46E-11	7.27E-11	2.39E+02
2	6000	S-35	1.93E-09	9.70E-11	2.43E-11	1.21E-10	3.99E+02
2	7000	C-14	6.87E-10	0.00E+00	8.52E-12	8.52E-12	1.63E+02
2	7000	H-3	1.03E-08	0.00E+00	1.28E-10	1.28E-10	2.45E+03
2	7000	I-125	3.32E-11	1.67E-12	4.13E-13	2.08E-12	7.91E+00
2	7000	I-131	3.32E-11	1.67E-12	4.13E-13	2.08E-12	7.91E+00
2	7000	P-32	9.97E-10	5.01E-11	1.24E-11	6.25E-11	2.37E+02
2	7000	S-35	1.66E-09	8.35E-11	2.06E-11	1.04E-10	3.96E+02
2	8000	C-14	6.03E-10	0.00E+00	7.44E-12	7.44E-12	1.63E+02

2	8000	P-32	8.70E-10	4.37E-11	1.08E-11	5.45E-11	2.36E+0
2	8000	S-35	1.45E-09	7.29E-11	1.79E-11	9.08E-11	3.93E+0
2	9000	C-14	5.36E-10	0.00E+00	6.61E-12	6.61E-12	1.63E+0
2	9000	H-3	8.04E-09	0.00E+00	9.91E-11	9.91E-11	2.44E+0
2	9000	I-125	2.56E-11	1.29E-12	3.16E-13	1.60E-12	7.80E+0
2	9000	I-131	2.56E-11	1.29E-12	3.16E-13	1.60E-12	7.80E+0
2	9000	P-32	7.69E-10	3.86E-11	9.49E-12	4.81E-11	2.34E+0
2	9000	S-35	1.28E-09	6.44E-11	1.58E-11	8.02E-11	3.90E+0
3	100	C-14	2.41E-11	0.00E+00	1.14E-09	1.14E-09	3.04E+0
3	100	H-3	3.61E-10	0.00E+00	1.71E-08	1.71E-08	4.57E+0
3	100	I-125	1.20E-12	6.04E-14	5.70E-11	5.70E-11	1.52E+0
3	100	I-131	1.20E-12	6.04E-14	5.70E-11	5.70E-11	1.52E+0
3	100	P-32	3.61E-11	1.81E-12	1.71E-09	1.71E-09	4.57E+0
3	100	S-35	6.01E-11	3.02E-12	2.85E-09	2.85E-09	7.61E+0
3	200	C-14	5.69E-10	0.00E+00	5.70E-10	5.70E-10	3.04E+0
3	200	H-3	8.54E-09	0.00E+00	8.54E-09	8.54E-09	4.56E+0
3	200	I-125	2.85E-11	1.43E-12	2.85E-11	2.99E-11	1.52E+0
3	200	I-131	2.85E-11	1.43E-12	2.85E-11	2.99E-11	1.52E+0
3	200	P-32	8.54E-10	4.29E-11	8.54E-10	8.97E-10	4.56E+0
3	200	S-35	1.42E-09	7.15E-11	1.42E-09	1.50E-09	7.61E+0
3	300	C-14	9.62E-10	0.00E+00	3.80E-10	3.80E-10	3.04E+0
3	300	H-3	1.44E-08	0.00E+00	5.70E-09	5.70E-09	4.56E+0
3	300	I-125	4.81E-11	2.42E-12	1.90E-11	2.14E-11	1.52E+0
3	300	I-131	4.81E-11	2.42E-12	1.90E-11	2.14E-11	1.52E+0
3	300	P-32	1.44E-09	7.25E-11	5.70E-10	6.42E-10	4.56E+0
3	300	S-35	2.40E-09	1.21E-10	9.49E-10	1.07E-09	7.61E+0
3	400	C-14	1.06E-09	0.00E+00	2.85E-10	2.85E-10	3.04E+0
3	400	H-3	1.59E-08	0.00E+00	4.27E-09	4.27E-09	4.56E+0
3	400	I-125	5.30E-11	2.66E-12	1.42E-11	1.69E-11	1.52E+0
3	400	I-131	5.30E-11	2.66E-12	1.42E-11	1.69E-11	1.52E+0
3	400	P-32	1.59E-09	7.99E-11	4.27E-10	5.07E-10	4.56E+0
3	400	S-35	2.65E-09	1.33E-10	7.12E-10	8.45E-10	7.61E+0
3	500	C-14	1.19E-09	0.00E+00	2.28E-10	2.28E-10	3.04E+0
3	500	H-3	1.78E-08	0.00E+00	3.42E-09	3.42E-09	4.56E+0
3	500	I-125	5.93E-11	2.98E-12	1.14E-11	1.44E-11	1.52E+0
3	500	I-131	5.93E-11	2.98E-12	1.14E-11	1.44E-11	1.52E+0
3	500	P-32	1.78E-09	8.93E-11	3.42E-10	4.31E-10	4.56E+0
3	500	S-35	2.96E-09	1.49E-10	5.69E-10	7.18E-10	7.60E+0
3	600	C-14	1.45E-09	0.00E+00	1.90E-10	1.90E-10	3.04E+0
3	600	H-3	2.18E-08	0.00E+00	2.85E-09	2.85E-09	4.56E+0
3	600	I-125	7.26E-11	3.64E-12	9.49E-12	1.31E-11	1.52E+0
3	600	I-131	7.26E-11	3.64E-12	9.49E-12	1.31E-11	1.52E+0
3	600	P-32	2.18E-09	1.09E-10	2.85E-10	3.94E-10	4.56E+0
3	600	S-35	3.63E-09	1.82E-10	4.74E-10	6.57E-10	7.60E+0
3	700	C-14	1.77E-09	0.00E+00	1.63E-10	1.63E-10	3.04E+0
3	700	H-3	2.66E-08	0.00E+00	2.44E-09	2.44E-09	4.56E+0
3	700	I-125	8.85E-11	4.44E-12	8.13E-12	1.26E-11	1.52E+0
3	700	I-131	8.85E-11	4.44E-12	8.13E-12	1.26E-11	1.52E+0
3	700	P-32	2.65E-09	1.33E-10	2.44E-10	3.77E-10	4.56E+0
3	700	S-35	4.42E-09	2.22E-10	4.06E-10	6.29E-10	7.60E+0
3	800	C-14	2.05E-09	0.00E+00	1.42E-10	1.42E-10	3.04E+0
3	800	H-3	3.08E-08	0.00E+00	2.13E-09	2.13E-09	4.56E+0
3	800	I-125	1.03E-10	5.15E-12	7.11E-12	1.23E-11	1.52E+0
3	800	I-131	1.03E-10	5.15E-12	7.11E-12	1.23E-11	1.52E+0
3	800	P-32	3.08E-09	1.55E-10	2.13E-10	2.40E-10	4.56E+0

3	900	P-32	3.42E-09	1.72E-10	1.90E-10	3.61E-10	4.56E+0
3	900	S-35	5.69E-09	2.86E-10	3.16E-10	6.02E-10	7.60E+0
3	1000	C-14	2.47E-09	0.00E+00	1.14E-10	1.14E-10	3.04E+0
3	1000	H-3	3.70E-08	0.00E+00	1.71E-09	1.71E-09	4.56E+0
3	1000	I-125	1.23E-10	6.19E-12	5.69E-12	1.19E-11	1.52E+0
3	1000	I-131	1.23E-10	6.19E-12	5.69E-12	1.19E-11	1.52E+0
3	1000	P-32	3.70E-09	1.86E-10	1.71E-10	3.56E-10	4.56E+0
3	1000	S-35	6.16E-09	3.10E-10	2.84E-10	5.94E-10	7.59E+0
3	1500	C-14	2.72E-09	0.00E+00	7.58E-11	7.58E-11	3.04E+0
3	1500	H-3	4.08E-08	0.00E+00	1.14E-09	1.14E-09	4.56E+0
3	1500	I-125	1.36E-10	6.81E-12	3.78E-12	1.06E-11	1.52E+0
3	1500	I-131	1.36E-10	6.81E-12	3.78E-12	1.06E-11	1.52E+0
3	1500	P-32	4.07E-09	2.04E-10	1.14E-10	3.18E-10	4.55E+0
3	1500	S-35	6.78E-09	3.40E-10	1.89E-10	5.30E-10	7.58E+0
3	2000	C-14	2.83E-09	0.00E+00	5.68E-11	5.68E-11	3.04E+0
3	2000	H-3	4.25E-08	0.00E+00	8.52E-10	8.52E-10	4.55E+0
3	2000	I-125	1.41E-10	7.08E-12	2.83E-12	9.91E-12	1.51E+0
3	2000	I-131	1.41E-10	7.08E-12	2.83E-12	9.91E-12	1.51E+0
3	2000	P-32	4.23E-09	2.13E-10	8.49E-11	2.97E-10	4.54E+0
3	2000	S-35	7.05E-09	3.54E-10	1.42E-10	4.96E-10	7.56E+0
3	2500	C-14	2.79E-09	0.00E+00	4.54E-11	4.54E-11	3.03E+0
3	2500	H-3	4.18E-08	0.00E+00	6.81E-10	6.81E-10	4.55E+0
3	2500	I-125	1.39E-10	6.96E-12	2.26E-12	9.22E-12	1.51E+0
3	2500	I-131	1.39E-10	6.96E-12	2.26E-12	9.22E-12	1.51E+0
3	2500	F-32	4.16E-09	2.09E-10	6.77E-11	2.77E-10	4.52E+0
3	2500	S-35	6.93E-09	3.48E-10	1.13E-10	4.61E-10	7.54E+0
3	3000	C-14	2.64E-09	0.00E+00	3.78E-11	3.78E-11	3.03E+0
3	3000	H-3	3.96E-08	0.00E+00	5.67E-10	5.67E-10	4.55E+0
3	3000	I-125	1.31E-10	6.57E-12	1.88E-12	8.45E-12	1.50E+0
3	3000	I-131	1.31E-10	6.57E-12	1.88E-12	8.45E-12	1.50E+0
3	3000	F-32	3.92E-09	1.97E-10	5.63E-11	2.53E-10	4.51E+0
3	3000	S-35	6.54E-09	3.28E-10	9.38E-11	4.22E-10	7.51E+0
3	4000	C-14	2.13E-09	0.00E+00	2.83E-11	2.83E-11	3.03E+0
3	4000	H-3	3.20E-08	0.00E+00	4.25E-10	4.25E-10	4.54E+0
3	4000	I-125	1.05E-10	5.27E-12	1.40E-12	6.67E-12	1.49E+0
3	4000	I-131	1.05E-10	5.27E-12	1.40E-12	6.67E-12	1.49E+0
3	4000	P-32	3.15E-09	1.58E-10	4.19E-11	2.00E-10	4.48E+0
3	4000	S-35	5.25E-09	2.64E-10	6.98E-11	3.34E-10	7.46E+0
3	5000	C-14	1.78E-09	0.00E+00	2.26E-11	2.26E-11	3.02E+0
3	5000	H-3	2.67E-08	0.00E+00	3.39E-10	3.39E-10	4.53E+0
3	5000	I-125	8.72E-11	4.38E-12	1.11E-12	5.49E-12	1.48E+0
3	5000	I-131	8.72E-11	4.38E-12	1.11E-12	5.49E-12	1.48E+0
3	5000	P-32	2.62E-09	1.31E-10	3.33E-11	1.65E-10	4.45E+0
3	5000	S-35	4.36E-09	2.19E-10	5.55E-11	2.75E-10	7.41E+0
3	6000	C-14	1.52E-09	0.00E+00	1.88E-11	1.88E-11	3.02E+0
3	6000	H-3	2.27E-08	0.00E+00	2.82E-10	2.82E-10	4.53E+0
3	6000	I-125	7.38E-11	3.71E-12	9.18E-13	4.63E-12	1.47E+0
3	6000	I-131	7.38E-11	3.71E-12	9.18E-13	4.63E-12	1.47E+0
3	6000	P-32	2.21E-09	1.11E-10	2.75E-11	1.39E-10	4.41E+0
3	6000	S-35	3.69E-09	1.85E-10	4.59E-11	2.31E-10	7.36E+0
3	7000	C-14	1.31E-09	0.00E+00	1.61E-11	1.61E-11	3.01E+0
3	7000	H-3	1.97E-08	0.00E+00	2.42E-10	2.42E-10	4.52E+0
3	7000	I-125	6.35E-11	3.19E-12	7.80E-13	3.97E-12	1.46E+0
3	7000	I-131	6.35E-11	3.19E-12	7.80E-13	3.97E-12	1.46E+0
3	7000	P-32	1.90E-09	9.57E-11	2.34E-11	1.19E-10	4.38E+0
3	7000	S-35	3.17E-09	1.59E-10	3.90E-11	1.99E-10	7.30E+0
3	8000	C-14	1.15E-09	0.00E+00	1.41E-11	1.41E-11	3.01E+0

3	8000	P-32	1.66E-09	8.35E-11	2.03E-11	1.04E-10	4.35E+01
3	8000	S-35	2.77E-09	1.39E-10	3.39E-11	1.73E-10	7.25E+01
3	9000	C-14	1.02E-09	0.00E+00	1.25E-11	1.25E-11	3.01E+01
3	9000	H-3	1.53E-08	0.00E+00	1.88E-10	1.88E-10	4.51E+01
3	9000	I-125	4.89E-11	2.46E-12	5.98E-13	3.05E-12	1.44E+01
3	9000	I-131	4.89E-11	2.46E-12	5.98E-13	3.05E-12	1.44E+01
3	9000	P-32	1.47E-09	7.37E-11	1.79E-11	9.16E-11	4.31E+01
3	9000	S-35	2.44E-09	1.23E-10	2.99E-11	1.53E-10	7.19E+01
4	100	C-14	4.93E-11	0.00E+00	2.05E-09	2.05E-09	5.43E+01
4	100	H-3	7.39E-10	0.00E+00	3.08E-08	3.08E-08	8.14E+01
4	100	I-125	2.46E-12	1.24E-13	1.03E-10	1.03E-10	2.71E+01
4	100	I-131	2.46E-12	1.24E-13	1.03E-10	1.03E-10	2.71E+01
4	100	P-32	7.39E-11	3.71E-12	3.08E-09	3.08E-09	8.14E+01

APPENDIX F
R-RAM® Results

**R-RAM RESULTS
WORST-CASE SCENARIO
DHS POTENCY FACTORS**

ra:dez

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Wed Nov 29 16:03:17 1989

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:30 VERSION: 42688

The Pathway Variables are:

** GENERAL **

Risk Threshold For Burden Calc.	1.000E-07
Body Weight (kg)	7.000E+01
Alternate Exposure Period (yrs)	3.000E+01

** RESPIRATION **

Respiration Rate (m ³ /day)	2.000E+01
Particle Correction	1.000E+00

** SOIL **

Mixing Depth (m)	1.500E-01
Soil Consumption, 70 Years (kg/day)	1.500E-03
Soil Consumption, Alt. Years (kg/day)	1.500E-03

** PLANT **

Rec. # Used as Farm (0=Rec. Specific)	0.000E+00
Interception Fraction (*)	5.400E-02
Elimination Constant (1/day)	3.870E-02
Days Exposed (day)	6.000E+01
Edible Crop Density (kg/m ²)	2.000E+00
Cleaning Efficiency (*)	8.000E-02
Plant Consumption (kg/day)	9.000E-02
Root Vegetable Consumption (kg/day)	6.000E-02

** FISH **

Rec. # Used as Water Body	1.950E+02
Rec. # Used as Runoff	1.950E+02
Water Surface Area (m ²)	3.200E+08
Water Flowrate (kg/day)	1.100E+10
Sediment Flowrate (kg/day)	0.000E+00
Deposition Period	1.000E+00
Fish Consumption (g/day)	0.000E+00

** DAIRY AND BEEF **

Rec. # Used as Dairy Pasture	1.200E+01
Rec. # Used as Dairy Feedlot	1.200E+01
Fraction of Dairy Feed From Grazing	1.000E+00
Bioconcentration Factor for Milk	7.000E+00
Rec. # Used as Beef Pasture	1.200E+01
REC. # Used as Beef Feedlot	1.200E+01
Fraction of Beef Feed from Grazing	1.000E+00
Bioconcentration Factor for Beef	7.000E+00
Cattle Inhalation Rate (m ³ /day)	1.580E+02
Fodder Exposure Period (days)	4.800E+01
Fodder Surface Area (m ² /day)	1.000E+00
Quantity of Fodder Exposed (kg)	3.600E+01
Water Surface Area (m ²)	8.550E+00
Water Residence Time (hr)	7.520E+00
Water Quantity in Water Tank (kg)	4.700E+03
Milk Production Rate (kg/day)	2.300E+00
Cattle Body Weight (kg)	2.400E+02

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:30 VERSION: 42688

Grass Interception (*)	5.700E-01
Grass Density (kg/m^2)	5.800E-01
Grass Consumption Rate (kg/day)	1.600E+01
Soil Consumption Rate (kg/day)	2.000E+00
Water Consumption Rate (kg/day)	1.500E+02
Fodder Consumption Rate (kg/day)	1.600E+01
Beef Consumption Rate (kg/day)	2.000E-03
Milk Consumption Rate (kg/day)	4.000E-03

** DERMAL **

Skin Surface Area (cm^2)	4.170E+03
Dust on Skin (mg/cm^2/day)	7.500E+00

** MOTHERS MILK **

Female Fat Content (kg)	2.100E+01
Infant Milk Consumption (ml/day)	8.500E+02
Infant Body Weight (kg)	8.500E+00

** DRINKING WATER **

Rec. # Used as Reservoir	6.400E+01
Reservoir Surface Area (m^2)	2.300E+04
Water Reservoir Outflow (kg/day)	2.600E+07
Drinking Water Consumption (kg/day)	2.000E+00

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:30 VERSION: 42688

THE POLLUTANT SPECIFIC DATA ARE:

SYMBOL	INGEST POT.	INHALE POT.	BIOCONC	ROOT	CLASS
BA	0.000E+00	0.000E+00	1.700E+00	1.04E-02	M
BENZ	1.700E-01	1.700E-01	5.000E+00	0.00E+00	A
BE	8.400E+00	8.400E+00	1.900E+01	7.79E-04	M
BEHP	1.400E-02	1.400E-02	3.800E+02	8.40E-02	A
BRCL2ME	1.300E-01	1.300E-01	0.000E+00	0.00E+00	A
CHBR3	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
BBPH	0.000E+00	0.000E+00	8.472E+03	2.10E-01	M
CCL4	1.300E-01	1.300E-01	1.900E+01	0.00E+00	A
CLBENZ	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
CHCL3	6.100E-03	8.100E-02	3.750E+00	0.00E+00	A
CD	0.000E+00	4.000E+01	8.100E+01	5.41E-02	M
CR	0.000E+00	5.100E+02	1.600E+01	1.15E-03	M
CU	0.000E+00	0.000E+00	2.000E+02	6.29E-02	M
DIETHPH	0.000E+00	0.000E+00	0.000E+00	6.00E-02	A
MDCBENZ	0.000E+00	0.000E+00	5.600E+01	0.00E+00	A
ODCBENZ	0.000E+00	0.000E+00	5.600E+01	0.00E+00	A
PDCBENZ	2.400E-02	2.400E-02	5.600E+01	0.00E+00	A
ME2PHEN	0.000E+00	0.000E+00	0.000E+00	6.40E-02	A
DIOXANE	1.100E-02	1.100E-02	0.000E+00	0.00E+00	A
EDC	7.300E-02	7.300E-02	0.000E+00	0.00E+00	A
ETHGLYC	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
HEXBENZ	1.700E+00	1.700E+00	8.690E+03	7.00E-02	A
PB	0.000E+00	0.000E+00	4.900E+01	3.88E-03	M
HG	0.000E+00	0.000E+00	5.500E+03	8.10E-02	M
CH2BR2	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
CH2CL2	3.300E-03	3.300E-03	5.000E+00	0.00E+00	A
NAPHTH	0.000E+00	0.000E+00	8.000E+01	7.20E-02	A
NI	1.700E+00	1.700E+00	4.700E+01	1.32E-02	M
NO2BEN	0.000E+00	0.000E+00	0.000E+00	9.00E-01	A
NO2PHEN	0.000E+00	0.000E+00	0.000E+00	2.50E-01	A
PFORMAL	4.600E-02	4.600E-02	0.000E+00	0.00E+00	A
PHENOL	0.000E+00	0.000E+00	1.100E+00	7.10E-01	M
AG	0.000E+00	0.000E+00	3.080E+03	3.78E-02	M
TCDD	1.330E+05	1.330E+05	5.000E+03	1.00E-02	M
PCE	5.100E-02	3.330E-03	3.100E+01	0.00E+00	A
1122PCA	2.000E-01	2.000E-01	4.200E+01	0.00E+00	A
TCE	1.100E-02	1.700E-02	1.060E+01	0.00E+00	A
CL3BENZ	0.000E+00	0.000E+00	0.000E+00	5.60E-02	A

SYMBOL - Pollutant name
POTENCY - Pollutant ingestion potency slope
INHALE POT. - Pollutant inhalation potency slope
BIOCONC - Bioconcentration factor for fish
ROOT - Root uptake factor
CLASS - 'A' Area weighted deposition flux
 'M' Mass weighted deposition flux

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:30 VERSION: 42688

THE ELIMINATION RATE DATA ARE:

SYMBOL	SOIL	ANIMAL	MOTHERS MILK
BA	1.000E+00	1.000E-01	1.000E+00
BENZ	1.000E+00	1.000E-01	1.000E+00
BE	1.000E+00	1.000E-01	1.000E+00
BEHP	1.820E+01	7.500E-01	7.500E-01
BRCL2ME	1.000E+00	1.000E-01	1.000E+00
CHBR3	1.000E+00	1.000E-01	1.000E+00
BBPH	1.820E+01	7.500E-01	7.500E-01
CCL4	1.000E+00	1.000E-01	1.000E+00
CLBENZ	1.000E+00	3.300E-02	3.300E-02
CHCL3	1.000E+00	1.000E-01	1.000E+00
CD	1.000E+00	1.000E-01	1.000E+00
CR	1.000E+00	1.000E-01	1.000E+00
CU	1.000E+00	1.000E-01	1.000E+00
DIETHPH	1.820E+01	7.500E-01	7.500E-01
MDCBENZ	1.000E+00	7.000E-02	7.000E-02
ODCBENZ	1.000E+00	7.000E-02	7.000E-02
PDCBENZ	1.200E-01	7.000E-02	7.000E-02
ME2PHEN	1.000E+00	1.000E-01	7.000E-01
DIOXANE	1.000E+00	1.000E-01	1.000E+00
EDC	1.000E+00	1.000E-01	1.000E+00
ETHGLYC	1.000E+00	1.000E-01	1.000E+00
HEXBENZ	1.200E-01	1.400E-02	6.300E-04
PB	1.000E+00	1.000E-01	1.000E+00
HG	1.000E+00	1.000E-01	1.000E+00
CH2BR2	1.000E+00	1.000E-01	1.000E+00
CH2CL2	1.000E+00	1.000E-01	1.000E+00
NAPHTH	2.310E+02	9.900E-02	9.900E-02
NI	1.000E+00	1.000E-01	1.000E+00
NO2BEN	1.000E+00	2.300E-01	2.300E-01
NO2PHEN	1.000E+00	1.400E-01	1.400E-01
PFORMAL	1.000E+00	1.000E-01	1.000E+00
PHENOL	6.930E+01	1.400E-01	1.400E-01
AG	1.000E+00	1.000E-01	1.000E+00
TCDD	5.780E-02	1.060E-01	4.500E-04
PCE	1.000E+00	1.000E-01	1.000E+00
1122PCA	1.000E+00	1.000E-01	1.000E+00
TCE	1.000E+00	1.000E-01	1.000E+00
CL3BENZ	1.200E-01	3.300E-02	3.300E-02

SYMBOL - Pollutant name
SOIL - Elimination constant for soil
ANIMAL - Elimination constant for cattle
MILK - Elimination constant for mothers milk

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:31 VERSION: 42688

THE POPULATIONS OF THE RECEPTORS ARE:

Receptor	Population			
1	0.	555200	4200600	5
2	0.	555300	4200600	5
3	0.	555400	4200600	10
4	0.	555500	4200600	10
5	0.	555600	4200600	15
6	0.	555700	4200600	15
7	0.	555800	4200600	20
8	0.	555900	4200600	20
9	0.	556000	4200600	25
10	0.	556100	4200600	25
11	0.	555200	4200500	5
12	0.	555300	4200500	5
13	0.	555400	4200500	10
14	0.	555500	4200500	10
15	0.	555600	4200500	15
16	0.	555700	4200500	15
17	0.	555800	4200500	20
18	0.	555900	4200500	25
19	0.	556000	4200500	25
20	0.	556100	4200500	25
21	0.	555200	4200400	5
22	0.	555300	4200400	5
23	0.	555400	4200400	10
24	0.	555500	4200400	10
25	0.	555600	4200400	15
26	0.	555700	4200400	15
27	0.	555800	4200400	20
28	0.	555900	4200400	20
29	0.	556000	4200400	25
30	0.	556100	4200400	25
31	0.	555200	4200300	5
32	0.	555300	4200300	5
33	0.	555400	4200300	5
34	0.	555500	4200300	10
35	0.	555600	4200300	10
36	0.	555700	4200300	15
37	0.	555800	4200300	20
38	0.	555900	4200300	20
39	0.	556000	4200300	25
40	0.	556100	4200300	25
41	0.	555200	4200200	5
42	0.	555300	4200200	5
43	0.	555400	4200200	5
44	0.	555500	4200200	10
45	0.	555600	4200200	15
46	0.	555700	4200200	15

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:31 VERSION: 42688

Receptor	Population			
47	0.	555800	4200200	20
48	0.	555900	4200200	20
49	0.	556000	4200200	20
50	0.	556100	4200200	25
51	0.	555200	4200100	5
52	0.	555300	4200100	5
53	0.	555400	4200100	10
54	0.	555500	4200100	15
55	0.	555600	4200100	15
56	0.	555700	4200100	15
57	0.	555800	4200100	20
58	0.	555900	4200100	20
59	0.	556000	4200100	20
60	0.	556100	4200100	25
61	0.	555200	4200000	5
62	0.	555300	4200000	10
63	0.	555400	4200000	15
64	0.	555500	4200000	15
65	0.	555600	4200000	15
66	0.	555700	4200000	15
67	0.	555800	4200000	20
68	0.	555900	4200000	20
69	0.	556000	4200000	20
70	0.	556100	4200000	25
71	0.	555200	4199900	10
72	0.	555300	4199900	10
73	0.	555400	4199900	15
74	0.	555500	4199900	15
75	0.	555600	4199900	15
76	0.	555700	4199900	20
77	0.	555800	4199900	20
78	0.	555900	4199900	20
79	0.	556000	4199900	20
80	0.	556100	4199900	25
81	0.	555200	4199800	10
82	0.	555300	4199800	10
83	0.	555400	4199800	15
84	0.	555500	4199800	15
85	0.	556250	4199100	25
86	0.	555700	4199800	20
87	0.	555800	4199800	20
88	0.	555900	4199800	20
89	0.	556000	4199800	20
90	0.	556100	4199800	25
91	0.	555400	4199100	15
92	0.	555500	4199200	15
93	0.	555600	4199300	15
94	0.	555650	4199400	15
95	0.	556000	4199200	25
96	0.	555700	4199700	15
97	0.	555800	4199700	15

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:31 VERSION: 42688

Receptor	Population				
98	0.	555900	4199700	20	
99	0.	556000	4199700	20	
100	0.	556100	4199700	25	
101	0.	553500	4201500	0	
102	0.	554000	4201500	0	
103	0.	554500	4201500	0	
104	0.	555000	4201500	10	
105	0.	555500	4201500	15	
106	0.	556000	4201500	20	
107	0.	556500	4201500	30	
108	0.	557000	4201500	40	3680
109	0.	557500	4201500	50	3680
110	0.	553500	4201000	0	
111	0.	554000	4201000	0	
112	0.	554500	4201000	0	
113	0.	555000	4201000	10	
114	0.	555500	4201000	10	3650.02
115	0.	556000	4201000	20	3650.02
116	0.	556500	4201000	30	
117	0.	557000	4201000	40	3680
118	0.	557500	4201000	55	
119	0.	553500	4200500	0	
120	0.	554000	4200500	0	
121	0.	554500	4200500	0	
122	0.	555000	4200500	0	
123	0.	555500	4200500	10	3650.02
124	0.	556000	4200500	25	3650.02
125	0.	556500	4200500	40	3680
126	0.	557000	4200500	50	3680
127	0.	557500	4200500	65	3720
128	0.	553500	4200000	0	
129	436.				
130	436.				
131	436.				
132	436.				
133	436.				
134	436.				
135	436.				
136	436.				
137	436.				
138	1090.				
139	1090.				
140	1090.				
141	1090.				
142	1090.				
143	1090.				
144	1090.				
145	1090.				
146	5378.				
147	5378.				
148	3578.				

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:31 VERSION: 42688

Receptor	Population
149	3860.
150	3860.
151	3860.
152	3860.
153	3860.
154	3073.
155	3073.
156	3073.
157	3073.
158	3073.
159	3073.
160	3073.
161	2808.
162	2808.
163	2808.
164	2808.
165	2808.
166	4574.
167	4574.
168	4574.
169	4574.
170	4574.
171	0.
172	0.
173	0.
174	0.
175	0.
176	0.
177	0.
178	0.
179	0.
180	0.
181	0.
182	0.
183	0.
184	0.
185	0.
186	0.
187	0.
188	0.
189	0.
190	0.
191	0.
192	0.
193	0.
194	0.
195	0.
196	0.
197	0.
198	0.
199	0.

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:31 VERSION: 42688

Receptor	Population
200	0.
201	0.
202	0.
203	0.
204	0.
205	0.

Receptor - Receptor name
Population - Number of people living at receptor

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:31 VERSION: 42688

Unit concentrations and deposition fluxes are:

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
1				
	1	1.610E+00	3.220E-02	3.220E-02
	2	6.630E-01	1.330E-02	1.330E-02
	3	7.750E-01	1.550E-02	1.550E-02
	4	1.090E+00	2.180E-02	2.180E-02
	5	9.960E-01	1.990E-02	1.990E-02
	6	7.400E-01	1.480E-02	1.480E-02
	7	5.500E-01	1.100E-02	1.100E-02
	8	4.280E-01	8.560E-03	8.560E-03
	9	3.420E-01	6.850E-03	6.850E-03
	10	8.400E-02	1.680E-03	1.680E-03
	11	3.990E+00	7.980E-02	7.980E-02
	12	3.970E+00	7.940E-02	7.940E-02
	13	2.410E+00	4.830E-02	4.830E-02
	14	1.830E+00	3.660E-02	3.660E-02
	15	1.180E+00	2.370E-02	2.370E-02
	16	7.810E-01	1.560E-02	1.560E-02
	17	5.480E-01	1.100E-02	1.100E-02
	18	4.060E-01	8.120E-03	8.120E-03
	19	5.730E-02	1.150E-03	1.150E-03
	20	1.450E-01	2.900E-03	2.900E-03
	21	2.350E+00	4.700E-02	4.700E-02
	22	2.020E+00	4.040E-02	4.040E-02
	23	1.630E+00	3.250E-02	3.250E-02
	24	1.400E+00	2.800E-02	2.800E-02
	25	8.720E-01	1.740E-02	1.740E-02
	26	6.450E-01	1.290E-02	1.290E-02
	27	4.820E-01	9.640E-03	9.640E-03
	28	5.140E-02	1.030E-03	1.030E-03
	29	9.030E-02	1.810E-03	1.810E-03
	30	3.520E-01	7.030E-03	7.030E-03
	31	1.450E+00	2.890E-02	2.890E-02
	32	1.670E+00	3.340E-02	3.340E-02
	33	1.500E+00	3.010E-02	3.010E-02
	34	1.030E+00	2.050E-02	2.050E-02
	35	7.080E-01	1.420E-02	1.420E-02
	36	5.200E-01	1.040E-02	1.040E-02
	37	5.560E-02	1.110E-03	1.110E-03
	38	9.430E-02	1.890E-03	1.890E-03
	39	1.640E-01	3.290E-03	3.290E-03
	40	6.150E-01	1.230E-02	1.230E-02
	41	1.300E+00	2.610E-02	2.610E-02
	42	1.580E+00	3.160E-02	3.160E-02
	43	1.030E+00	2.070E-02	2.070E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:32 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	44	7.830E-01	1.570E-02	1.570E-02
	45	5.790E-01	1.160E-02	1.160E-02
	46	5.620E-02	1.120E-03	1.120E-03
	47	9.860E-02	1.970E-03	1.970E-03
	48	1.470E-01	2.930E-03	2.930E-03
	49	3.850E-01	7.700E-03	7.700E-03
	50	9.090E-01	1.820E-02	1.820E-02
	51	1.450E+00	2.910E-02	2.910E-02
	52	9.470E-01	1.890E-02	1.890E-02
	53	7.850E-01	1.570E-02	1.570E-02
	54	6.070E-01	1.210E-02	1.210E-02
	55	6.310E-02	1.260E-03	1.260E-03
	56	9.240E-02	1.850E-03	1.850E-03
	57	1.370E-01	2.730E-03	2.730E-03
	58	2.550E-01	5.110E-03	5.110E-03
	59	5.590E-01	1.120E-02	1.120E-02
	60	9.640E-01	1.930E-02	1.930E-02
	61	7.300E-01	1.460E-02	1.460E-02
	62	6.710E-01	1.340E-02	1.340E-02
	63	5.960E-01	1.190E-02	1.190E-02
	64	4.380E-01	8.760E-03	8.760E-03
	65	1.030E-01	2.060E-03	2.060E-03
	66	1.080E-01	2.150E-03	2.150E-03
	67	1.190E-01	2.380E-03	2.380E-03
	68	1.270E-01	2.550E-03	2.550E-03
	69	1.300E-01	2.590E-03	2.590E-03
	70	1.270E-01	2.540E-03	2.540E-03
	71	1.220E-01	2.440E-03	2.440E-03
	72	1.130E-01	2.260E-03	2.260E-03
	73	1.060E-01	2.120E-03	2.120E-03
	74	8.240E-02	1.650E-03	1.650E-03
	75	6.290E-02	1.260E-03	1.260E-03
	76	6.850E-02	1.370E-03	1.370E-03
	77	7.540E-02	1.510E-03	1.510E-03
	78	9.100E-02	1.820E-03	1.820E-03
	79	1.110E-01	2.220E-03	2.220E-03
	80	1.270E-01	2.550E-03	2.550E-03
	81	1.400E-01	2.800E-03	2.800E-03
	82	1.540E-01	3.080E-03	3.080E-03
	83	1.610E-01	3.220E-03	3.220E-03
	84	1.540E-01	3.080E-03	3.080E-03
	85	1.560E-01	3.120E-03	3.120E-03
	86	1.460E-01	2.910E-03	2.910E-03
	87	1.480E-01	2.950E-03	2.950E-03
	88	1.510E-01	3.020E-03	3.020E-03
	89	1.600E-01	3.200E-03	3.200E-03
	90	1.590E-01	3.190E-03	3.190E-03
	91	6.490E-02	1.300E-03	1.300E-03
	92	7.770E-02	1.550E-03	1.550E-03

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:32 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	93	1.100E-01	2.190E-03	2.190E-03
	94	1.300E-01	2.600E-03	2.600E-03
	95	1.570E-01	3.140E-03	3.140E-03
	96	1.630E-01	3.270E-03	3.270E-03
	97	1.630E-01	3.270E-03	3.270E-03
	98	1.340E-01	2.670E-03	2.670E-03
	99	1.260E-01	2.520E-03	2.520E-03
100	1.170E-01	2.330E-03	2.330E-03	
101	1.380E-01	2.770E-03	2.770E-03	
102	1.540E-01	3.090E-03	3.090E-03	
103	1.840E-01	3.670E-03	3.670E-03	
104	2.220E-01	4.450E-03	4.450E-03	
105	2.760E-01	5.510E-03	5.510E-03	
106	3.310E-01	6.620E-03	6.620E-03	
107	4.900E-01	9.790E-03	9.790E-03	
108	8.060E-01	1.610E-02	1.610E-02	
109	9.140E-01	1.830E-02	1.830E-02	
110	7.330E-01	1.470E-02	1.470E-02	
111	4.660E-01	9.310E-03	9.310E-03	
112	5.300E-01	1.060E-02	1.060E-02	
113	4.300E-01	8.590E-03	8.590E-03	
114	3.450E-01	6.900E-03	6.900E-03	
115	1.480E-01	2.950E-03	2.950E-03	
116	1.580E-01	3.170E-03	3.170E-03	
117	1.790E-01	3.570E-03	3.570E-03	
118	2.110E-01	4.210E-03	4.210E-03	
119	2.850E-01	5.690E-03	5.690E-03	
120	3.900E-01	7.810E-03	7.810E-03	
121	4.300E-01	8.590E-03	8.590E-03	
122	4.610E-01	9.220E-03	9.220E-03	
123	5.150E-01	1.030E-02	1.030E-02	
124	6.670E-01	1.330E-02	1.330E-02	
125	4.670E-01	9.340E-03	9.340E-03	
126	3.120E-01	6.230E-03	6.230E-03	
127	2.040E-01	4.070E-03	4.070E-03	
128	1.400E-01	2.810E-03	2.810E-03	
129	1.960E-02	3.920E-04	3.920E-04	
130	2.290E-02	4.570E-04	4.570E-04	
131	5.460E-02	1.090E-03	1.090E-03	
132	2.260E-02	4.510E-04	4.510E-04	
133	8.240E-02	1.650E-03	1.650E-03	
134	1.040E+00	2.080E-02	2.080E-02	
135	3.770E-02	7.540E-04	7.540E-04	
136	4.480E-02	8.950E-04	8.950E-04	
137	2.400E-02	4.810E-04	4.810E-04	
138	7.190E-02	1.440E-03	1.440E-03	
139	1.790E-01	3.590E-03	3.590E-03	
140	4.090E-02	8.170E-04	8.170E-04	
141	5.500E-02	1.100E-03	1.100E-03	

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:32 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
142		3.970E-02	7.930E-04	7.930E-04
143		1.520E-01	3.040E-03	3.040E-03
144		6.110E-02	1.220E-03	1.220E-03
145		3.740E-02	7.480E-04	7.480E-04
146		2.210E-02	4.430E-04	4.430E-04
147		2.080E-02	4.150E-04	4.150E-04
148		2.970E-02	5.940E-04	5.940E-04
149		2.660E-02	5.320E-04	5.320E-04
150		4.250E-02	8.500E-04	8.500E-04
151		3.250E-02	6.500E-04	6.500E-04
152		1.100E-01	2.200E-03	2.200E-03
153		1.970E-01	3.940E-03	3.940E-03
154		5.560E-02	1.110E-03	1.110E-03
155		9.440E-02	1.890E-03	1.890E-03
156		7.800E-02	1.560E-03	1.560E-03
157		9.470E-02	1.890E-03	1.890E-03
158		1.010E-01	2.030E-03	2.030E-03
159		9.580E-02	1.920E-03	1.920E-03
160		5.810E-02	1.160E-03	1.160E-03
161		3.100E-02	6.210E-04	6.210E-04
162		3.970E-02	7.940E-04	7.940E-04
163		5.390E-02	1.080E-03	1.080E-03
164		2.860E-02	5.710E-04	5.710E-04
165		3.770E-02	7.550E-04	7.550E-04
166		1.870E-02	3.740E-04	3.740E-04
167		2.390E-02	4.780E-04	4.780E-04
168		1.620E-02	3.240E-04	3.240E-04
169		2.140E-02	4.280E-04	4.280E-04
170		1.870E-02	3.750E-04	3.750E-04
171		3.770E-01	7.550E-03	7.550E-03
172		3.770E-01	7.530E-03	7.530E-03
173		3.450E-01	6.890E-03	6.890E-03
174		2.480E-01	4.950E-03	4.950E-03
175		2.590E-01	5.170E-03	5.170E-03
176		1.990E-01	3.990E-03	3.990E-03
177		1.850E-01	3.690E-03	3.690E-03
178		5.830E-01	1.170E-02	1.170E-02
179		4.410E-01	8.830E-03	8.830E-03
180		4.390E-01	8.770E-03	8.770E-03
181		3.870E-01	7.730E-03	7.730E-03
182		7.280E-01	1.460E-02	1.460E-02
183		1.020E+00	2.030E-02	2.030E-02
184		1.250E+00	2.500E-02	2.500E-02
185		1.460E+00	2.920E-02	2.920E-02
186		1.460E+00	2.930E-02	2.930E-02
187		5.020E+00	1.000E-01	1.000E-01
188		5.000E+00	1.000E-01	1.000E-01
189		3.770E+00	7.530E-02	7.530E-02
190		3.050E+00	6.090E-02	6.090E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:32 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
191		2.630E+00	5.260E-02	5.260E-02
192		4.980E+00	9.960E-02	9.960E-02
193		4.960E+00	9.910E-02	9.910E-02
194		3.260E+00	6.520E-02	6.520E-02
195		2.640E+00	5.270E-02	5.270E-02
196		2.170E+00	4.330E-02	4.330E-02
197		3.900E+00	7.800E-02	7.800E-02
198		3.480E+00	6.960E-02	6.960E-02
199		2.820E+00	5.650E-02	5.650E-02
200		2.230E+00	4.460E-02	4.460E-02
201		4.530E-01	9.050E-03	9.050E-03
202		1.930E+00	3.860E-02	3.860E-02
203		2.920E+00	5.840E-02	5.840E-02
204		2.630E+00	5.270E-02	5.270E-02
205		2.160E+00	4.330E-02	4.330E-02
2				
	1	1.620E+01	3.240E-01	3.240E-01
	2	2.180E+01	4.360E-01	4.360E-01
	3	4.500E+00	9.000E-02	9.000E-02
	4	2.730E+00	5.460E-02	5.460E-02
	5	1.950E+00	3.900E-02	3.900E-02
	6	1.350E+00	2.710E-02	2.710E-02
	7	9.870E-01	1.970E-02	1.970E-02
	8	7.640E-01	1.530E-02	1.530E-02
	9	6.080E-01	1.220E-02	1.220E-02
	10	8.820E+01	1.760E+00	1.760E+00
	11	1.330E+02	2.660E+00	2.660E+00
	12	2.430E+01	4.850E-01	4.850E-01
	13	7.580E+00	1.520E-01	1.520E-01
	14	3.660E+00	7.310E-02	7.310E-02
	15	2.090E+00	4.170E-02	4.170E-02
	16	1.330E+00	2.670E-02	2.670E-02
	17	9.220E-01	1.840E-02	1.840E-02
	18	6.720E-01	1.340E-02	1.340E-02
	19	8.570E+00	1.710E-01	1.710E-01
	20	9.080E+00	1.820E-01	1.820E-01
	21	1.810E+01	3.610E-01	3.610E-01
	22	9.940E+00	1.990E-01	1.990E-01
	23	5.080E+00	1.020E-01	1.020E-01
	24	2.580E+00	5.170E-02	5.170E-02
	25	1.610E+00	3.210E-02	3.210E-02
	26	1.150E+00	2.300E-02	2.300E-02
	27	8.530E-01	1.710E-02	1.710E-02
	28	3.370E+00	6.740E-02	6.740E-02
	29	3.830E+00	7.660E-02	7.660E-02
	30	5.140E+00	1.030E-01	1.030E-01
	31	7.320E+00	1.460E-01	1.460E-01
	32	6.000E+00	1.200E-01	1.200E-01
	33	3.220E+00	6.440E-02	6.440E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M^3/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M^2/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M^2/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:33 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	34	2.000E+00	4.000E-02	4.000E-02
	35	1.390E+00	2.790E-02	2.790E-02
	36	9.460E-01	1.890E-02	1.890E-02
	37	2.010E+00	4.010E-02	4.010E-02
	38	2.380E+00	4.760E-02	4.760E-02
	39	2.360E+00	4.720E-02	4.720E-02
	40	4.000E+00	8.010E-02	8.010E-02
	41	4.470E+00	8.930E-02	8.930E-02
	42	2.920E+00	5.840E-02	5.840E-02
	43	2.030E+00	4.070E-02	4.070E-02
	44	1.530E+00	3.060E-02	3.060E-02
	45	1.090E+00	2.180E-02	2.180E-02
	46	1.270E+00	2.550E-02	2.550E-02
	47	1.670E+00	3.340E-02	3.340E-02
	48	1.660E+00	3.310E-02	3.310E-02
	49	2.220E+00	4.430E-02	4.430E-02
	50	2.300E+00	4.590E-02	4.590E-02
	51	2.230E+00	4.460E-02	4.460E-02
	52	1.800E+00	3.610E-02	3.610E-02
	53	1.460E+00	2.920E-02	2.920E-02
	54	1.100E+00	2.190E-02	2.190E-02
	55	9.670E-01	1.930E-02	1.930E-02
	56	1.180E+00	2.370E-02	2.370E-02
	57	1.310E+00	2.620E-02	2.620E-02
	58	1.370E+00	2.730E-02	2.730E-02
	59	1.330E+00	2.650E-02	2.650E-02
	60	1.480E+00	2.950E-02	2.950E-02
	61	1.480E+00	2.960E-02	2.960E-02
	62	1.220E+00	2.440E-02	2.440E-02
	63	1.080E+00	2.160E-02	2.160E-02
	64	8.950E-01	1.790E-02	1.790E-02
	65	7.800E-01	1.560E-02	1.560E-02
	66	7.090E-01	1.420E-02	1.420E-02
	67	7.170E-01	1.430E-02	1.430E-02
	68	7.120E-01	1.420E-02	1.420E-02
	69	7.020E-01	1.400E-02	1.400E-02
	70	6.800E-01	1.360E-02	1.360E-02
	71	6.260E-01	1.250E-02	1.250E-02
	72	5.370E-01	1.070E-02	1.070E-02
	73	4.830E-01	9.660E-03	9.660E-03
	74	1.900E-01	3.800E-03	3.800E-03
	75	9.430E-01	1.890E-02	1.890E-02
	76	1.110E+00	2.220E-02	2.220E-02
	77	1.260E+00	2.510E-02	2.510E-02
	78	1.530E+00	3.060E-02	3.060E-02
	79	1.960E+00	3.920E-02	3.920E-02
	80	2.370E+00	4.740E-02	4.740E-02
	81	2.720E+00	5.440E-02	5.440E-02
	82	3.240E+00	6.490E-02	6.490E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:33 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	83	3.840E+00	7.680E-02	7.680E-02
	84	3.900E+00	7.800E-02	7.800E-02
	85	4.100E+00	8.200E-02	8.200E-02
	86	3.360E+00	6.720E-02	6.720E-02
	87	3.000E+00	6.010E-02	6.010E-02
	88	2.890E+00	5.770E-02	5.770E-02
	89	2.370E+00	4.730E-02	4.730E-02
	90	1.790E+00	3.580E-02	3.580E-02
	91	6.990E-01	1.400E-02	1.400E-02
	92	8.440E-01	1.690E-02	1.690E-02
	93	1.240E+00	2.470E-02	2.470E-02
	94	1.570E+00	3.140E-02	3.140E-02
	95	2.050E+00	4.100E-02	4.100E-02
	96	2.390E+00	4.770E-02	4.770E-02
	97	2.540E+00	5.070E-02	5.070E-02
	98	1.830E+00	3.660E-02	3.660E-02
	99	1.670E+00	3.330E-02	3.330E-02
100		1.160E+00	2.310E-02	2.310E-02
101		9.590E-01	1.920E-02	1.920E-02
102		1.140E+00	2.280E-02	2.280E-02
103		1.430E+00	2.860E-02	2.860E-02
104		1.850E+00	3.710E-02	3.710E-02
105		2.430E+00	4.860E-02	4.860E-02
106		2.740E+00	5.470E-02	5.470E-02
107		3.650E+00	7.310E-02	7.310E-02
108		5.180E+00	1.040E-01	1.040E-01
109		5.820E+00	1.160E-01	1.160E-01
110		5.200E+00	1.040E-01	1.040E-01
111		2.150E+00	4.300E-02	4.300E-02
112		1.270E+00	2.540E-02	2.540E-02
113		9.030E-01	1.810E-02	1.810E-02
114		6.820E-01	1.360E-02	1.360E-02
115		8.010E-01	1.600E-02	1.600E-02
116		8.330E-01	1.670E-02	1.670E-02
117		1.020E+00	2.030E-02	2.030E-02
118		1.140E+00	2.280E-02	2.280E-02
119		1.240E+00	2.480E-02	2.480E-02
120		1.770E+00	3.550E-02	3.550E-02
121		1.820E+00	3.640E-02	3.640E-02
122		2.230E+00	4.460E-02	4.460E-02
123		1.990E+00	3.990E-02	3.990E-02
124		1.640E+00	3.290E-02	3.290E-02
125		1.120E+00	2.250E-02	2.250E-02
126		8.050E-01	1.610E-02	1.610E-02
127		4.600E-01	9.210E-03	9.210E-03
128		2.970E-01	5.940E-03	5.940E-03
129		4.820E-02	9.640E-04	9.640E-04
130		4.460E-02	8.920E-04	8.920E-04
131		1.400E-01	2.810E-03	2.810E-03

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:33 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	132	4.310E-02	8.620E-04	8.620E-04
	133	2.030E-01	4.060E-03	4.060E-03
	134	1.400E+00	2.790E-02	2.790E-02
	135	2.130E-01	4.250E-03	4.250E-03
	136	1.030E-01	2.060E-03	2.060E-03
	137	5.740E-02	1.150E-03	1.150E-03
	138	2.210E-01	4.420E-03	4.420E-03
	139	4.260E-01	8.530E-03	8.530E-03
	140	2.320E-01	4.630E-03	4.630E-03
	141	2.620E-01	5.240E-03	5.240E-03
	142	1.620E-01	3.240E-03	3.240E-03
	143	5.420E-01	1.080E-02	1.080E-02
	144	1.480E-01	2.960E-03	2.960E-03
	145	1.080E-01	2.160E-03	2.160E-03
	146	8.500E-02	1.700E-03	1.700E-03
	147	8.110E-02	1.620E-03	1.620E-03
	148	1.230E-01	2.460E-03	2.460E-03
	149	1.090E-01	2.170E-03	2.170E-03
	150	1.890E-01	3.790E-03	3.790E-03
	151	1.430E-01	2.870E-03	2.870E-03
	152	4.350E-01	8.700E-03	8.700E-03
	153	7.340E-01	1.470E-02	1.470E-02
	154	2.970E-01	5.950E-03	5.950E-03
	155	7.870E-01	1.570E-02	1.570E-02
	156	2.570E-01	5.140E-03	5.140E-03
	157	4.460E-01	8.910E-03	8.910E-03
	158	6.330E-01	1.270E-02	1.270E-02
	159	1.050E+00	2.090E-02	2.090E-02
	160	3.760E-01	7.520E-03	7.520E-03
	161	9.260E-02	1.850E-03	1.850E-03
	162	1.230E-01	2.460E-03	2.460E-03
	163	1.780E-01	3.570E-03	3.570E-03
	164	1.050E-01	2.090E-03	2.090E-03
	165	1.430E-01	2.860E-03	2.860E-03
	166	6.250E-02	1.250E-03	1.250E-03
	167	8.300E-02	1.660E-03	1.660E-03
	168	4.690E-02	9.390E-04	9.390E-04
	169	6.380E-02	1.280E-03	1.280E-03
	170	4.900E-02	9.810E-04	9.810E-04
	171	1.060E+00	2.120E-02	2.120E-02
	172	9.010E-01	1.800E-02	1.800E-02
	173	8.130E-01	1.630E-02	1.630E-02
	174	5.840E-01	1.170E-02	1.170E-02
	175	5.970E-01	1.190E-02	1.190E-02
	176	4.440E-01	8.880E-03	8.880E-03
	177	4.160E-01	8.310E-03	8.310E-03
	178	8.010E-01	1.600E-02	1.600E-02
	179	8.220E-01	1.640E-02	1.640E-02
	180	7.790E-01	1.560E-02	1.560E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:34 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
181		6.770E-01	1.350E-02	1.350E-02
182		1.490E+01	2.970E-01	2.970E-01
183		8.710E+00	1.740E-01	1.740E-01
184		7.040E+00	1.410E-01	1.410E-01
185		5.090E+00	1.020E-01	1.020E-01
186		4.190E+00	8.380E-02	8.380E-02
187		6.650E+01	1.330E+00	1.330E+00
188		3.030E+01	6.060E-01	6.060E-01
189		1.700E+01	3.400E-01	3.400E-01
190		1.040E+01	2.070E-01	2.070E-01
191		6.830E+00	1.370E-01	1.370E-01
192		8.060E+01	1.610E+00	1.610E+00
193		3.230E+01	6.470E-01	6.470E-01
194		1.410E+01	2.820E-01	2.820E-01
195		9.130E+00	1.830E-01	1.830E-01
196		4.340E+01	8.670E-01	8.670E-01
197		3.790E+01	7.580E-01	7.580E-01
198		2.320E+01	4.650E-01	4.650E-01
199		1.450E+01	2.900E-01	2.900E-01
200		9.510E+00	1.900E-01	1.900E-01
201		1.530E+01	3.070E-01	3.070E-01
202		2.250E+01	4.510E-01	4.510E-01
203		2.150E+01	4.290E-01	4.290E-01
204		1.570E+01	3.140E-01	3.140E-01
205		1.120E+01	2.250E-01	2.250E-01

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:34 VERSION: 42688

Emission rate of Pollutants from all Sources is:

Source	Pollutant	Emission Rate
1	BA	2.720E-09
	BENZ	7.320E-06
	BE	2.380E-08
	BEHP	1.520E-06
	BRCL2ME	1.070E-06
	CHBR3	3.620E-05
	BBPH	1.600E-07
	CCL4	9.500E-07
	CLBENZ	2.160E-06
	CHCL3	2.120E-06
	CD	1.140E-09
	CR	4.790E-07
	CU	1.250E-06
	DIETHPH	1.410E-06
	MDCBENZ	1.500E-07
	ODCBENZ	1.930E-07
	PDCBENZ	1.090E-07
	ME2PHEN	2.300E-06
	DIOXANE	3.940E-07
	EDC	7.740E-12
	ETHGLYC	4.410E-06
	HEXBENZ	2.600E-07
	PB	8.160E-09
	HG	2.740E-07
	CH2BR2	6.330E-06
	CH2CL2	3.160E-06
	NAPHTH	7.900E-06
	NI	7.140E-08
	NO2BEN	4.800E-06
	NO2PHEN	2.090E-05
	PFORMAL	2.520E-08
	PHENOL	2.120E-06
	AG	2.220E-07
	TCDD	9.800E-12
	PCE	1.120E-06
	1122PCA	8.930E-10
	TCE	2.300E-06
	CL3BENZ	2.600E-07
2	BA	0.000E+00
	BENZ	5.200E-08
	BE	0.000E+00
	BEHP	0.000E+00
	BRCL2ME	0.000E+00
	CHBR3	0.000E+00
	BBPH	0.000E+00

Source - Source Identification

Pollutant - Pollutant Identification

Emission rate - Emission rate of each pollutant in g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:34 VERSION: 42688

Source	Pollutant	Emission Rate
	CCL4	0.000E+00
	CLBENZ	0.000E+00
	CHCL3	1.180E-08
	CD	0.000E+00
	CR	0.000E+00
	CU	0.000E+00
	DIETHPH	0.000E+00
	MDCBENZ	0.000E+00
	ODCBENZ	0.000E+00
	PDCBENZ	0.000E+00
	ME2PHEN	0.000E+00
	DIOXANE	4.020E-07
	EDC	1.690E-11
	ETHGLYC	1.340E-08
	HEXBENZ	0.000E+00
	PB	0.000E+00
	HG	0.000E+00
	CH2BR2	0.000E+00
	CH2CL2	1.320E-08
	NAPHTH	4.780E-11
	NI	0.000E+00
	NO2BEN	0.000E+00
	NO2PHEN	0.000E+00
	PFORMAL	8.400E-10
	PHENOL	1.560E-10
	AG	0.000E+00
	TCDD	0.000E+00
	PCE	7.550E-10
	1122PCA	1.430E-10
	TCE	4.330E-09
	CL3BENZ	0.000E+00

Source - Source Identification

Pollutant - Pollutant Identification

Emission rate - Emission rate of each pollutant in g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:35 VERSION: 42688

The Gastrointestinal Factors are:

Symbol	Inhal	Soil	Plant	Fish	D&B	Dermal	Water	Milk	Tissue
BA	1.000	1.000	1.000	0.000	1.000	0.010	1.000	0.000	1.000
BENZ	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BE	1.000	0.010	0.010	0.000	0.000	0.010	1.000	0.000	0.010
BEHP	1.000	1.000	1.000	1.000	1.000	0.010	1.000	1.000	1.000
BRCL2ME	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHBR3	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BBPH	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
CCL4	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CLBENZ	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHCL3	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CD	1.000	1.000	0.060	0.000	0.000	0.010	1.000	0.000	1.000
CR	1.000	1.000	0.050	1.000	0.000	0.010	1.000	0.000	1.000
CU	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
DIETHPH	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
MDCBENZ	1.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000
ODCBENZ	1.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000
PDCBENZ	1.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000
ME2PHEN	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
DIOXANE	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EDC	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ETHGLYC	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HEXBENZ	1.000	1.000	1.000	1.000	1.000	0.010	1.000	1.000	1.000
PB	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
HG	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
CH2BR2	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CH2CL2	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NAPHTH	1.000	1.000	1.000	0.000	0.000	0.010	1.000	1.000	1.000
NI	1.000	0.100	0.100	0.000	0.000	0.010	1.000	0.000	0.100
NO2BEN	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
NO2PHEN	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
PFORMAL	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PHENOL	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
AG	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
TCDD	1.000	0.300	0.300	0.000	1.700	0.010	0.300	1.700	1.000
PCE	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1122PCA	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCE	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CL3BENZ	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000

Symbol - Pollutant name
Inhal - Inhalation absorbtion efficiency
Soil - Soil ingestion GI factor
Plant - Plant ingestion GI factor
Fish - Fish consumption GI factor
D&B - Beef and dairy consumption GI factor
Dermal - Dermal uptake factor
Water - Water consumption GI factor
Milk - Mothers milk consumption GI factor
Tissue - GI factor for pollutants into plant tissue

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*** LLNL CAPCOA HRA upper bound ***

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Acceptable Daily Intakes for all Pollutants are:

Pollutant	Inhalation ADI	Ingestion ADI
BA	1.000E-01	5.000E-02
BENZ	0.000E+00	0.000E+00
BE	0.000E+00	5.000E-03
BEHP	0.000E+00	2.000E-02
BRCL2ME	0.000E+00	2.000E-02
CHBR3	3.400E-03	2.000E-02
BBPH	2.000E-01	2.000E-01
CCL4	0.000E+00	7.000E-04
CLBENZ	5.000E-03	2.000E-02
CHCL3	0.000E+00	1.000E-02
CD	0.000E+00	3.000E-04
CR	0.000E+00	5.000E-03
CU	1.400E-04	8.600E-02
DIETHPH	3.400E-03	8.000E-01
MDCBENZ	4.000E-02	9.000E-02
ODCBENZ	4.000E-02	9.000E-02
PDCBENZ	2.000E-01	0.000E+00
ME2PHEN	6.000E-04	6.000E-04
DIOXANE	6.100E-02	0.000E+00
EDC	0.000E+00	0.000E+00
ETHGLYC	8.500E-02	2.000E+00
HEXBENZ	0.000E+00	0.000E+00
PB	4.300E-04	1.400E-03
HG	6.800E-05	3.000E-04
CH2BR2	2.500E-01	2.500E-01
CH2CL2	8.600E-01	6.000E-02
NAPHTH	3.400E-02	4.000E-01
NI	0.000E+00	0.000E+00
NO2BEN	6.000E-04	5.000E-04
NO2PHEN	6.500E-04	6.500E-04
PFORMAL	0.000E+00	0.000E+00
PHENOL	1.300E-02	6.000E-01
AG	6.800E-06	3.000E-03
TCDD	0.000E+00	0.000E+00
PCE	0.000E+00	1.000E-02
1122PCA	0.000E+00	0.000E+00
TCE	0.000E+00	0.000E+00
CL3BENZ	3.000E-03	2.000E-02

Pollutant - Pollutant name

Inhalation ADI - Acceptable daily intake for inhalation of pollutant

Ingestion ADI - Acceptable daily intake for ingestion of pollutant

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:41 VERSION: 42688

INHALATION				
RECEPTOR NUMBER 12				
POLLUTANT	70 YEARS		30.0 YEARS	
	DOSE	RISK	DOSE	RISK
BA	3.085E-12		3.085E-12	
BENZ	8.664E-09	1.473E-09	8.664E-09	6.312E-10
BE	2.700E-11	2.268E-10	2.700E-11	9.719E-11
BEHP	1.724E-09	2.414E-11	1.724E-09	1.034E-11
BRCL2M	1.214E-09	1.578E-10	1.214E-09	6.762E-11
CHBR3	4.106E-08		4.106E-08	
BBPH	1.815E-10		1.815E-10	
CCL4	1.078E-09	1.401E-10	1.078E-09	6.004E-11
CLBENZ	2.450E-09		2.450E-09	
CHCL3	2.487E-09	2.014E-10	2.487E-09	8.632E-11
CD	1.293E-12	5.172E-11	1.293E-12	2.217E-11
CR	5.433E-10	2.771E-07	5.433E-10	1.188E-07
CU	1.418E-09		1.418E-09	
DIETHP	1.599E-09		1.599E-09	
MDCBEN	1.701E-10		1.701E-10	
ODCBEN	2.189E-10		2.189E-10	
PDCBEN	1.236E-10	2.967E-12	1.236E-10	1.272E-12
ME2PHE	2.609E-09		2.609E-09	
DIOXAN	3.238E-09	3.562E-11	3.238E-09	1.526E-11
EDC	1.261E-13	9.206E-15	1.261E-13	3.946E-15
ETHGLY	5.095E-09		5.095E-09	
HEXBEN	2.949E-10	5.014E-10	2.949E-10	2.149E-10
PB	9.256E-12		9.256E-12	
HG	3.108E-10		3.108E-10	
CH2BR2	7.180E-09		7.180E-09	
CH2CL2	3.676E-09	1.213E-11	3.676E-09	5.199E-12
NAPHTH	8.961E-09		8.961E-09	
NI	8.099E-11	1.377E-10	8.099E-11	5.901E-11
NO2BEN	5.445E-09		5.445E-09	
NO2PHE	2.371E-08		2.371E-08	
PFORMA	3.442E-11	1.583E-12	3.442E-11	6.785E-13
PHENOL	2.406E-09		2.406E-09	
AG	2.518E-10		2.518E-10	
TCDD	1.112E-14	1.478E-09	1.112E-14	6.336E-10
PCE	1.276E-09	4.248E-12	1.276E-09	1.821E-12
1122PC	2.006E-12	4.011E-13	2.006E-12	1.719E-13
TCE	2.639E-09	4.486E-11	2.639E-09	1.923E-11
CL3BEN	2.949E-10		2.949E-10	

PATHWAY RISK ==>	2.816E-07		1.207E-07	

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*** LLNL CAPCOA HRA upper bound ***

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SOIL				
RECEPTOR NUMBER 12				
POLLUTANT	70 YEARS		30.0 YEARS	
	DOSE	RISK	DOSE	RISK
BA	4.541E-11		1.946E-11	
BE	3.973E-12	3.337E-11	1.703E-12	6.130E-12
BEHP	1.992E-11	2.788E-13	1.992E-11	1.195E-13
BBPH	2.096E-12		2.096E-12	
CD	1.903E-11		8.156E-12	
CR	7.996E-09		3.427E-09	
CU	2.087E-08		8.943E-09	
DIETHP	1.848E-11		1.848E-11	
ME2PHE	3.839E-08		1.645E-08	
HEXBEN	5.166E-10	8.782E-10	5.026E-10	3.662E-10
PB	1.362E-10		5.838E-11	
HG	4.574E-09		1.960E-09	
NAPHTH	8.156E-12		8.156E-12	
NI	1.192E-10	2.026E-10	5.108E-11	3.722E-11
NO2BEN	8.013E-08		3.434E-08	
NO2PHE	3.489E-07		1.495E-07	
PHENOL	7.299E-12		7.299E-12	
AG	3.706E-09		1.588E-09	
TCDD	1.192E-14	1.585E-09	9.988E-15	5.693E-10
CL3BEN	5.166E-10		5.026E-10	

PATHWAY RISK ==>	2.700E-09		9.789E-10	

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:41 VERSION: 42688

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      PLANT
    RECEPTOR NUMBER 12
  70 YEARS          30.0 YEARS
POLLUTANT    DOSE      RISK      DOSE      RISK
BA          3.750E-11          2.401E-11
BE          1.370E-12 1.151E-11  1.282E-12 4.614E-12
BEHP        7.928E-09 1.110E-10  7.928E-09 4.757E-11
BBPH        8.610E-10          8.609E-10
CD           5.183E-11          2.241E-11
CR           5.821E-10          3.193E-10
CU           7.201E-08          3.451E-08
DIETHP      7.310E-09          7.310E-09
ME2PHE      1.346E-07          6.440E-08
HEXBEN      4.514E-09 7.674E-09  3.967E-09 2.890E-09
PB           6.809E-11          5.299E-11
HG           1.992E-08          9.338E-09
NAPHTH      4.040E-08          4.040E-08
NI           1.151E-10 1.957E-10  7.017E-11 5.112E-11
NO2BEN      3.630E-06          1.570E-06
NO2PHE      4.468E-06          1.976E-06
PHENOL      1.135E-08          1.135E-08
AG           8.138E-09          4.135E-09
TCDD        4.563E-14 6.068E-09  3.624E-14 2.066E-09
CL3BEN      3.877E-09          3.439E-09
-----
PATHWAY RISK ==>  1.406E-08          5.060E-09

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*** LLNL CAPCOA HRA upper bound ***

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      DAIRY AND BEEF
      RECEPTOR NUMBER 12
      70 YEARS          30.0 YEARS
POLLUTANT  DOSE      RISK      DOSE      RISK
BA          4.352E-11      3.415E-11
BEHP        1.517E-08 2.124E-10 1.517E-08 9.102E-11
BBPH        1.597E-09      1.597E-09
DIETHP      1.407E-08      1.407E-08
MDCBEN      2.331E-09      1.854E-09
ODCBEN      2.999E-09      2.385E-09
PDCBEN      1.159E-09 2.782E-11 1.157E-09 1.190E-11
ME2PHE      4.229E-08      3.123E-08
HEXBEN      2.863E-09 4.867E-09 2.856E-09 2.080E-09
NO2BEN      2.669E-07      1.417E-07
NO2PHE      5.573E-07      3.580E-07
PHENOL      2.117E-08      2.117E-08
TCDD        1.905E-13 2.533E-08 1.865E-13 1.063E-08
CL3BEN      2.843E-09      2.836E-09
-----
PATHWAY RISK ==> 3.044E-08      1.282E-08
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*** LLNL CAPCOA HRA upper bound ***

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      DERMAL (CONTACT W/ SOIL)
      RECEPTOR NUMBER 12
      70 YEARS          30.0 YEARS
POLLUTANT  DOSE        RISK        DOSE        RISK
BA          9.467E-12          4.057E-12
BE          8.284E-11  6.958E-10  3.550E-11  1.278E-10
BEHP        4.153E-12  5.814E-14  4.153E-12  2.492E-14
BBPH        4.371E-13          4.371E-13
CD          3.968E-12          1.700E-12
CR          1.667E-09          7.145E-10
CU          4.351E-09          1.865E-09
DIETHP      3.852E-12          3.852E-12
ME2PHE      8.005E-09          3.431E-09
HEXBEN      1.077E-10  1.831E-10  1.048E-10  7.634E-11
PB          2.840E-11          1.217E-11
HG          9.537E-10          4.087E-10
NAPHTH      1.700E-12          1.700E-12
NI          2.485E-10  4.225E-10  1.065E-10  7.760E-11
NO2BEN      1.671E-08          7.160E-09
NO2PHE      7.274E-08          3.118E-08
PHENOL      1.522E-12          1.522E-12
AG          7.727E-10          3.311E-10
TCDD        8.283E-15  1.102E-09  6.942E-15  3.957E-10
CL3BEN      1.077E-10          1.048E-10
-----
PATHWAY RISK ==>  2.403E-09          6.774E-10

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*** LLNL CAPCOA HRA upper bound ***

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      DRINKING WATER
      RECEPTOR NUMBER 12
      70 YEARS          30.0 YEARS
POLLUTANT  DOSE      RISK      DOSE      RISK
BA          5.203E-14      2.230E-14
BE          4.553E-13 3.824E-12  1.951E-13 3.824E-12
BEHP        2.908E-11 4.071E-13  1.246E-11 4.071E-13
BBPH        3.061E-12      1.312E-12
CD          2.181E-14      9.346E-15
CR          9.163E-12      3.927E-12
CU          2.391E-11      1.025E-11
DIETHP      2.697E-11      1.156E-11
ME2PHE      4.400E-11      1.886E-11
HEXBEN      4.974E-12 8.455E-12  2.132E-12 8.455E-12
PB          1.561E-13      6.690E-14
HG          5.241E-12      2.246E-12
NAPHTH      1.511E-10      6.477E-11
NI          1.366E-12 2.322E-12  5.854E-13 2.322E-12
NO2BEN      9.182E-11      3.935E-11
NO2PHE      3.998E-10      1.713E-10
PHENOL      4.056E-11      1.738E-11
AG          4.247E-12      1.820E-12
TCDD        5.624E-17 2.493E-11  2.410E-17 2.493E-11
CL3BEN      4.974E-12      2.132E-12
-----
PATHWAY RISK --> 3.994E-11      3.994E-11

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*** LLNL CAPCOA HRA upper bound ***

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	MOTHERS MILK			
	RECEPTOR NUMBER 12			
	70 YEARS		30.0 YEARS	
POLLUTANT	DOSE	RISK	DOSE	RISK
BEHP	7.186E-12	1.006E-13	1.676E-11	1.005E-13
BBPH	7.643E-13		1.782E-12	
DIETHP	6.653E-12		1.551E-11	
PDCBEN	3.971E-12	9.530E-14	9.252E-12	9.516E-14
ME2PHE	6.994E-11		8.533E-11	
HEXBEN	2.855E-09	4.853E-09	6.201E-09	4.518E-09
NAPHTH	1.084E-10		2.524E-10	
NO2BEN	3.768E-09		3.865E-09	
NO2PHE	8.467E-09		9.166E-09	
PHENOL	5.412E-11		1.262E-10	
TCDD	2.189E-13	2.912E-08	4.791E-13	2.731E-08
CL3BEN	5.019E-11		1.100E-10	

PATHWAY RISK ==>	3.397E-08		3.183E-08	

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:41 VERSION: 42688

RISK TABLE FOR RECEPTOR : 12

POLLUTANT	INHALATION	SOIL	PLANT	FISH	DAIRY	DERMAL	WATER	HUMAN MILK	TOTAL
BENZ	1.473E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.473E-09
BE	2.268E-10	3.337E-11	1.151E-11	0.000E+00	0.000E+00	6.958E-10	3.824E-12	0.000E+00	9.713E-10
BEHP	2.414E-11	2.788E-13	1.110E-10	0.000E+00	2.124E-10	5.814E-14	4.071E-13	1.006E-13	3.484E-10
BRCL2M	1.578E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.578E-10
CCL4	1.401E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.401E-10
CHCL3	2.014E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.014E-10
CD	5.172E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.172E-11
CR	2.771E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.771E-07
PDCBEN	2.967E-12	0.000E+00	0.000E+00	0.000E+00	2.782E-11	0.000E+00	0.000E+00	9.530E-14	3.089E-11
DIOXAN	3.562E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.562E-11
EDC	9.206E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.206E-15
HEXBEN	5.014E-10	8.782E-10	7.674E-09	0.000E+00	4.867E-09	1.831E-10	8.455E-12	4.853E-09	1.896E-08
CH2CL2	1.213E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.213E-11
NI	1.377E-10	2.026E-10	1.957E-10	0.000E+00	0.000E+00	4.225E-10	2.322E-12	0.000E+00	9.608E-10
PFORMA	1.583E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.583E-12
TCDD	1.478E-09	1.585E-09	6.068E-09	0.000E+00	2.533E-08	1.102E-09	2.493E-11	2.912E-08	6.471E-08
PCE	4.248E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.248E-12
1122PC	4.011E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.011E-13
TCE	4.486E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.486E-11

TOTAL =	2.816E-07	2.700E-09	1.406E-08	0.000E+00	3.044E-08	2.403E-09	3.994E-11	3.397E-08	3.652E-07

*** TOTAL 30.0 YR RISK ==> 1.721E-07 ***

*** TOTAL 70.0 YR RISK ==> 3.652E-07 ***

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:41 VERSION: 42688

Pollutant Name	Inhalation Exposure	Inhalation ADI	Safety Factor	Ingestion Exposure	Ingestion ADI	Safety Factor
BA	3.09E-12	1.00E-01	3.24E+10	1.36E-10	5.00E-02	3.68E+08
BENZ	8.66E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BE	2.70E-11	0.00E+00	0.00E+00	6.18E-10	5.00E-03	8.10E+06
BEHP	1.72E-09	0.00E+00	0.00E+00	2.32E-08	2.00E-02	8.64E+05
BRCL2M	1.21E-09	0.00E+00	0.00E+00	0.00E+00	2.00E-02	0.00E+00
CHBR3	4.11E-08	3.40E-03	8.28E+04	0.00E+00	2.00E-02	0.00E+00
BBPH	1.81E-10	2.00E-01	1.10E+09	2.46E-09	2.00E-01	8.11E+07
CCl4	1.08E-09	0.00E+00	0.00E+00	0.00E+00	7.00E-04	0.00E+00
CLBENZ	2.45E-09	5.00E-03	2.04E+06	0.00E+00	2.00E-02	0.00E+00
CHCL3	2.49E-09	0.00E+00	0.00E+00	0.00E+00	1.00E-02	0.00E+00
CD	1.29E-12	0.00E+00	0.00E+00	8.03E-11	3.00E-04	3.74E+06
CR	5.43E-10	0.00E+00	0.00E+00	1.26E-08	5.00E-03	3.98E+05
CU	1.42E-09	1.40E-04	9.87E+04	9.72E-08	8.60E-02	8.84E+05
DIETHP	1.60E-09	3.40E-03	2.13E+06	2.14E-08	8.00E-01	3.73E+07
MDCBEN	1.70E-10	4.00E-02	2.35E+08	2.33E-09	9.00E-02	3.86E+07
ODCBEN	2.19E-10	4.00E-02	1.83E+08	3.00E-09	9.00E-02	3.00E+07
PDCBEN	1.24E-10	2.00E-01	1.62E+09	1.16E-09	0.00E+00	0.00E+00
ME2PHE	2.61E-09	6.00E-04	2.30E+05	2.23E-07	6.00E-04	2.69E+03
DIOXAN	3.24E-09	6.10E-02	1.88E+07	0.00E+00	0.00E+00	0.00E+00
EDC	1.26E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ETHGLY	5.10E-09	8.50E-02	1.67E+07	0.00E+00	2.00E+00	0.00E+00
HEXBEN	2.95E-10	0.00E+00	0.00E+00	1.09E-08	0.00E+00	0.00E+00
PB	9.26E-12	4.30E-04	4.65E+07	2.33E-10	1.40E-03	6.01E+06
HG	3.11E-10	6.80E-05	2.19E+05	2.55E-08	3.00E-04	1.18E+04
CH2BR2	7.18E-09	2.50E-01	3.48E+07	0.00E+00	2.50E-01	0.00E+00
CH2CL2	3.68E-09	8.60E-01	2.34E+08	0.00E+00	6.00E-02	0.00E+00
NAPHTH	8.96E-09	3.40E-02	3.79E+06	4.07E-08	4.00E-01	9.84E+06
NI	8.10E-11	0.00E+00	0.00E+00	2.59E-09	0.00E+00	0.00E+00
NO2BEN	5.44E-09	6.00E-04	1.10E+05	4.00E-06	5.00E-04	1.25E+02
NO2PHE	2.37E-08	6.50E-04	2.74E+04	5.46E-06	6.50E-04	1.19E+02
PFORMA	3.44E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PHENOL	2.41E-09	1.30E-02	5.40E+06	3.26E-08	6.00E-01	1.84E+07
AG	2.52E-10	6.80E-06	2.70E+04	1.26E-08	3.00E-03	2.38E+05
TCDD	1.11E-14	0.00E+00	0.00E+00	3.70E-13	0.00E+00	0.00E+00
PCE	1.28E-09	0.00E+00	0.00E+00	0.00E+00	1.00E-02	0.00E+00
1122PC	2.01E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TCE	2.64E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CL3BEN	2.95E-10	3.00E-03	1.02E+07	7.40E-09	2.00E-02	2.70E+06

POLLUTANT - Pollutant identifier

INHALATION EXPOSURE - Exposure through inhalation of pollutant

INHALATION ADI - Inhalation Acceptable Daily Intake

INHALATION SAFETY FACTOR - ADI divided by exposure

INGESTION EXPOSURE - Exposure through all pathways other than inhalation

INGESTION ADI - Ingestion Acceptable Daily Intake

INGESTION SAFETY FACTOR - ADI divided by exposure

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:57 VERSION: 42688

MAXIMUM TOTAL 30.00 YR RISK --> 2.08E-07 ***

MAXIMUM TOTAL 70.0 YR RISK --> 4.48E-07 ***

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:57 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
1	0.	1.14E-07	1.09E-09	5.70E-09	0.00E+00	3.04E-08	9.75E-10	3.99E-11	2.71E-08	1.80E-07	0.00E+00
2	0.	4.71E-08	4.52E-10	2.36E-09	0.00E+00	3.04E-08	4.03E-10	3.99E-11	2.44E-08	1.05E-07	0.00E+00
3	0.	5.50E-08	5.27E-10	2.74E-09	0.00E+00	3.04E-08	4.69E-10	3.99E-11	2.47E-08	1.14E-07	0.00E+00
4	0.	7.73E-08	7.41E-10	3.86E-09	0.00E+00	3.04E-08	6.60E-10	3.99E-11	2.56E-08	1.39E-07	0.00E+00
5	0.	7.06E-08	6.77E-10	3.52E-09	0.00E+00	3.04E-08	6.02E-10	3.99E-11	2.53E-08	1.31E-07	0.00E+00
6	0.	5.25E-08	5.03E-10	2.62E-09	0.00E+00	3.04E-08	4.48E-10	3.99E-11	2.46E-08	1.11E-07	0.00E+00
7	0.	3.90E-08	3.74E-10	1.95E-09	0.00E+00	3.04E-08	3.33E-10	3.99E-11	2.40E-08	9.62E-08	0.00E+00
8	0.	3.04E-08	2.91E-10	1.52E-09	0.00E+00	3.04E-08	2.59E-10	3.99E-11	2.37E-08	8.66E-08	0.00E+00
9	0.	2.43E-08	2.33E-10	1.21E-09	0.00E+00	3.04E-08	2.07E-10	3.99E-11	2.34E-08	7.98E-08	0.00E+00
10	0.	6.32E-09	5.71E-11	2.97E-10	0.00E+00	3.04E-08	5.08E-11	3.99E-11	2.27E-08	5.99E-08	0.00E+00
11	0.	2.83E-07	2.71E-09	1.41E-08	0.00E+00	3.04E-08	2.42E-09	3.99E-11	3.40E-08	3.67E-07	0.00E+00
12	0.	2.82E-07	2.70E-09	1.41E-08	0.00E+00	3.04E-08	2.40E-09	3.99E-11	3.40E-08	3.65E-07	0.00E+00
13	0.	1.71E-07	1.64E-09	8.55E-09	0.00E+00	3.04E-08	1.46E-09	3.99E-11	2.94E-08	2.42E-07	0.00E+00
14	0.	1.30E-07	1.24E-09	6.48E-09	0.00E+00	3.04E-08	1.11E-09	3.99E-11	2.77E-08	1.97E-07	0.00E+00
15	0.	8.37E-08	8.06E-10	4.20E-09	0.00E+00	3.04E-08	7.17E-10	3.99E-11	2.59E-08	1.46E-07	0.00E+00
16	0.	5.54E-08	5.30E-10	2.76E-09	0.00E+00	3.04E-08	4.72E-10	3.99E-11	2.47E-08	1.14E-07	0.00E+00
17	0.	3.89E-08	3.74E-10	1.95E-09	0.00E+00	3.04E-08	3.33E-10	3.99E-11	2.40E-08	9.60E-08	0.00E+00
18	0.	2.88E-08	2.76E-10	1.44E-09	0.00E+00	3.04E-08	2.46E-10	3.99E-11	2.36E-08	8.48E-08	0.00E+00
19	0.	4.10E-09	3.91E-11	2.04E-10	0.00E+00	3.04E-08	3.48E-11	3.99E-11	2.26E-08	5.74E-08	0.00E+00
20	0.	1.03E-08	9.86E-11	5.14E-10	0.00E+00	3.04E-08	8.78E-11	3.99E-11	2.28E-08	6.43E-08	0.00E+00
21	0.	1.67E-07	1.60E-09	8.32E-09	0.00E+00	3.04E-08	1.42E-09	3.99E-11	2.93E-08	2.38E-07	0.00E+00
22	0.	1.43E-07	1.37E-09	7.15E-09	0.00E+00	3.04E-08	1.22E-09	3.99E-11	2.83E-08	2.12E-07	0.00E+00
23	0.	1.16E-07	1.10E-09	5.76E-09	0.00E+00	3.04E-08	9.84E-10	3.99E-11	2.71E-08	1.81E-07	0.00E+00
24	0.	9.93E-08	9.52E-10	4.96E-09	0.00E+00	3.04E-08	8.47E-10	3.99E-11	2.65E-08	1.63E-07	0.00E+00
25	0.	6.18E-08	5.92E-10	3.08E-09	0.00E+00	3.04E-08	5.27E-10	3.99E-11	2.49E-08	1.21E-07	0.00E+00
26	0.	4.57E-08	4.39E-10	2.28E-09	0.00E+00	3.04E-08	3.90E-10	3.99E-11	2.43E-08	1.04E-07	0.00E+00
27	0.	3.42E-08	3.28E-10	1.71E-09	0.00E+00	3.04E-08	2.92E-10	3.99E-11	2.38E-08	9.08E-08	0.00E+00
28	0.	3.66E-09	3.50E-11	1.82E-10	0.00E+00	3.04E-08	3.12E-11	3.99E-11	2.26E-08	5.70E-08	0.00E+00
29	0.	6.42E-09	6.15E-11	3.21E-10	0.00E+00	3.04E-08	5.48E-11	3.99E-11	2.27E-08	6.00E-08	0.00E+00
30	0.	2.50E-08	2.39E-10	1.24E-09	0.00E+00	3.04E-08	2.13E-10	3.99E-11	2.34E-08	8.06E-08	0.00E+00
31	0.	1.03E-07	9.83E-10	5.12E-09	0.00E+00	3.04E-08	8.75E-10	3.99E-11	2.66E-08	1.67E-07	0.00E+00
32	0.	1.18E-07	1.14E-09	5.91E-09	0.00E+00	3.04E-08	1.01E-09	3.99E-11	2.73E-08	1.84E-07	0.00E+00
33	0.	1.06E-07	1.02E-09	5.33E-09	0.00E+00	3.04E-08	9.11E-10	3.99E-11	2.68E-08	1.71E-07	0.00E+00
34	0.	7.30E-08	6.97E-10	3.63E-09	0.00E+00	3.04E-08	6.20E-10	3.99E-11	2.54E-08	1.34E-07	0.00E+00
35	0.	5.02E-08	4.83E-10	2.51E-09	0.00E+00	3.04E-08	4.30E-10	3.99E-11	2.45E-08	1.09E-07	0.00E+00
36	0.	3.69E-08	3.54E-10	1.84E-09	0.00E+00	3.04E-08	3.15E-10	3.99E-11	2.39E-08	9.38E-08	0.00E+00
37	0.	3.95E-09	3.77E-11	1.97E-10	0.00E+00	3.04E-08	3.36E-11	3.99E-11	2.26E-08	5.73E-08	0.00E+00
38	0.	6.70E-09	6.43E-11	3.35E-10	0.00E+00	3.04E-08	5.72E-11	3.99E-11	2.27E-08	6.03E-08	0.00E+00
39	0.	1.16E-08	1.12E-10	5.83E-10	0.00E+00	3.04E-08	9.96E-11	3.99E-11	2.29E-08	6.58E-08	0.00E+00
40	0.	4.36E-08	4.18E-10	2.18E-09	0.00E+00	3.04E-08	3.72E-10	3.99E-11	2.42E-08	1.01E-07	0.00E+00
41	0.	9.22E-08	8.87E-10	4.62E-09	0.00E+00	3.04E-08	7.90E-10	3.99E-11	2.62E-08	1.55E-07	0.00E+00
42	0.	1.12E-07	1.07E-09	5.60E-09	0.00E+00	3.04E-08	9.56E-10	3.99E-11	2.70E-08	1.77E-07	0.00E+00
43	0.	7.30E-08	7.04E-10	3.67E-09	0.00E+00	3.04E-08	6.26E-10	3.99E-11	2.54E-08	1.34E-07	0.00E+00
44	0.	5.55E-08	5.34E-10	2.78E-09	0.00E+00	3.04E-08	4.75E-10	3.99E-11	2.47E-08	1.14E-07	0.00E+00
45	0.	4.11E-08	3.94E-10	2.05E-09	0.00E+00	3.04E-08	3.51E-10	3.99E-11	2.41E-08	9.84E-08	0.00E+00
46	0.	3.99E-09	3.81E-11	1.98E-10	0.00E+00	3.04E-08	3.39E-11	3.99E-11	2.26E-08	5.73E-08	0.00E+00
47	0.	7.00E-09	6.70E-11	3.49E-10	0.00E+00	3.04E-08	5.96E-11	3.99E-11	2.27E-08	6.07E-08	0.00E+00
48	0.	1.04E-08	9.96E-11	5.19E-10	0.00E+00	3.04E-08	8.87E-11	3.99E-11	2.28E-08	6.45E-08	0.00E+00
49	0.	2.73E-08	2.62E-10	1.36E-09	0.00E+00	3.04E-08	2.33E-10	3.99E-11	2.35E-08	8.32E-08	0.00E+00
50	0.	6.45E-08	6.19E-10	3.22E-09	0.00E+00	3.04E-08	5.51E-10	3.99E-11	2.51E-08	1.24E-07	0.00E+00
51	0.	1.03E-07	9.89E-10	5.15E-09	0.00E+00	3.04E-08	8.81E-10	3.99E-11	2.66E-08	1.67E-07	0.00E+00
52	0.	6.72E-08	6.43E-10	3.35E-09	0.00E+00	3.04E-08	5.72E-10	3.99E-11	2.52E-08	1.27E-07	0.00E+00
53	0.	5.57E-08	5.34E-10	2.78E-09	0.00E+00	3.04E-08	4.75E-10	3.99E-11	2.47E-08	1.15E-07	0.00E+00
54	0.	4.30E-08	4.11E-10	2.14E-09	0.00E+00	3.04E-08	3.66E-10	3.99E-11	2.42E-08	1.01E-07	0.00E+00
55	0.	4.48E-09	4.28E-11	2.23E-10	0.00E+00	3.04E-08	3.81E-11	3.99E-11	2.26E-08	5.79E-08	0.00E+00

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:57 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
56	0.	6.56E-09	6.29E-11	3.28E-10	0.00E+00	3.04E-08	5.60E-11	3.99E-11	2.27E-08	6.02E-08	0.00E+00
57	0.	9.72E-09	9.28E-11	4.83E-10	0.00E+00	3.04E-08	8.26E-11	3.99E-11	2.28E-08	6.37E-08	0.00E+00
58	0.	1.81E-08	1.74E-10	9.05E-10	0.00E+00	3.04E-08	1.55E-10	3.99E-11	2.32E-08	7.30E-08	0.00E+00
59	0.	3.96E-08	3.81E-10	1.98E-09	0.00E+00	3.04E-08	3.39E-10	3.99E-11	2.40E-08	9.69E-08	0.00E+00
60	0.	6.84E-08	6.56E-10	3.42E-09	0.00E+00	3.04E-08	5.84E-10	3.99E-11	2.52E-08	1.29E-07	0.00E+00
61	0.	5.18E-08	4.96E-10	2.59E-09	0.00E+00	3.04E-08	4.42E-10	3.99E-11	2.45E-08	1.10E-07	0.00E+00
62	0.	4.76E-08	4.56E-10	2.37E-09	0.00E+00	3.04E-08	4.06E-10	3.99E-11	2.44E-08	1.06E-07	0.00E+00
63	0.	4.23E-08	4.05E-10	2.11E-09	0.00E+00	3.04E-08	3.60E-10	3.99E-11	2.41E-08	9.98E-08	0.00E+00
64	0.	3.11E-08	2.98E-10	1.55E-09	0.00E+00	3.04E-08	2.65E-10	3.99E-11	2.37E-08	8.73E-08	0.00E+00
65	0.	7.31E-09	7.00E-11	3.65E-10	0.00E+00	3.04E-08	6.23E-11	3.99E-11	2.27E-08	6.10E-08	0.00E+00
66	0.	7.66E-09	7.31E-11	3.81E-10	0.00E+00	3.04E-08	6.51E-11	3.99E-11	2.27E-08	6.14E-08	0.00E+00
67	0.	8.44E-09	8.09E-11	4.21E-10	0.00E+00	3.04E-08	7.20E-11	3.99E-11	2.28E-08	6.23E-08	0.00E+00
68	0.	9.01E-09	8.67E-11	4.52E-10	0.00E+00	3.04E-08	7.72E-11	3.99E-11	2.28E-08	6.29E-08	0.00E+00
69	0.	9.22E-09	8.81E-11	4.59E-10	0.00E+00	3.04E-08	7.84E-11	3.99E-11	2.28E-08	6.31E-08	0.00E+00
70	0.	9.01E-09	8.64E-11	4.50E-10	0.00E+00	3.04E-08	7.69E-11	3.99E-11	2.28E-08	6.29E-08	0.00E+00
71	0.	8.65E-09	8.30E-11	4.32E-10	0.00E+00	3.04E-08	7.38E-11	3.99E-11	2.28E-08	6.25E-08	0.00E+00
72	0.	8.01E-09	7.68E-11	4.00E-10	0.00E+00	3.04E-08	6.84E-11	3.99E-11	2.27E-08	6.18E-08	0.00E+00
73	0.	7.52E-09	7.21E-11	3.75E-10	0.00E+00	3.04E-08	6.42E-11	3.99E-11	2.27E-08	6.12E-08	0.00E+00
74	0.	5.84E-09	5.61E-11	2.92E-10	0.00E+00	3.04E-08	4.99E-11	3.99E-11	2.27E-08	5.94E-08	0.00E+00
75	0.	4.46E-09	4.28E-11	2.23E-10	0.00E+00	3.04E-08	3.81E-11	3.99E-11	2.26E-08	5.78E-08	0.00E+00
76	0.	4.86E-09	4.66E-11	2.43E-10	0.00E+00	3.04E-08	4.15E-11	3.99E-11	2.26E-08	5.83E-08	0.00E+00
77	0.	5.35E-09	5.13E-11	2.67E-10	0.00E+00	3.04E-08	4.57E-11	3.99E-11	2.26E-08	5.88E-08	0.00E+00
78	0.	6.46E-09	6.19E-11	3.22E-10	0.00E+00	3.04E-08	5.51E-11	3.99E-11	2.27E-08	6.01E-08	0.00E+00
79	0.	7.88E-09	7.55E-11	3.93E-10	0.00E+00	3.04E-08	6.72E-11	3.99E-11	2.27E-08	6.16E-08	0.00E+00
80	0.	9.01E-09	8.67E-11	4.52E-10	0.00E+00	3.04E-08	7.72E-11	3.99E-11	2.28E-08	6.29E-08	0.00E+00
81	0.	9.94E-09	9.52E-11	4.96E-10	0.00E+00	3.04E-08	8.47E-11	3.99E-11	2.28E-08	6.39E-08	0.00E+00
82	0.	1.09E-08	1.05E-10	5.45E-10	0.00E+00	3.04E-08	9.32E-11	3.99E-11	2.29E-08	6.50E-08	0.00E+00
83	0.	1.14E-08	1.09E-10	5.70E-10	0.00E+00	3.04E-08	9.75E-11	3.99E-11	2.29E-08	6.56E-08	0.00E+00
84	0.	1.09E-08	1.05E-10	5.45E-10	0.00E+00	3.04E-08	9.32E-11	3.99E-11	2.29E-08	6.50E-08	0.00E+00
85	0.	1.11E-08	1.06E-10	5.52E-10	0.00E+00	3.04E-08	9.44E-11	3.99E-11	2.29E-08	6.52E-08	0.00E+00
86	0.	1.04E-08	9.89E-11	5.15E-10	0.00E+00	3.04E-08	8.81E-11	3.99E-11	2.28E-08	6.44E-08	0.00E+00
87	0.	1.05E-08	1.00E-10	5.22E-10	0.00E+00	3.04E-08	8.93E-11	3.99E-11	2.28E-08	6.45E-08	0.00E+00
88	0.	1.07E-08	1.03E-10	5.35E-10	0.00E+00	3.04E-08	9.14E-11	3.99E-11	2.29E-08	6.48E-08	0.00E+00
89	0.	1.14E-08	1.09E-10	5.67E-10	0.00E+00	3.04E-08	9.68E-11	3.99E-11	2.29E-08	6.55E-08	0.00E+00
90	0.	1.13E-08	1.08E-10	5.65E-10	0.00E+00	3.04E-08	9.65E-11	3.99E-11	2.29E-08	6.54E-08	0.00E+00
91	0.	4.60E-09	4.42E-11	2.30E-10	0.00E+00	3.04E-08	3.93E-11	3.99E-11	2.26E-08	5.80E-08	0.00E+00
92	0.	5.51E-09	5.27E-11	2.74E-10	0.00E+00	3.04E-08	4.69E-11	3.99E-11	2.26E-08	5.90E-08	0.00E+00
93	0.	7.80E-09	7.45E-11	3.88E-10	0.00E+00	3.04E-08	6.63E-11	3.99E-11	2.27E-08	6.15E-08	0.00E+00
94	0.	9.22E-09	8.84E-11	4.60E-10	0.00E+00	3.04E-08	7.87E-11	3.99E-11	2.28E-08	6.31E-08	0.00E+00
95	0.	1.11E-08	1.07E-10	5.56E-10	0.00E+00	3.04E-08	9.50E-11	3.99E-11	2.29E-08	6.53E-08	0.00E+00
96	0.	1.16E-08	1.11E-10	5.79E-10	0.00E+00	3.04E-08	9.90E-11	3.99E-11	2.29E-08	6.57E-08	0.00E+00
97	0.	1.16E-08	1.11E-10	5.79E-10	0.00E+00	3.04E-08	9.90E-11	3.99E-11	2.29E-08	6.57E-08	0.00E+00
98	0.	9.51E-09	9.08E-11	4.73E-10	0.00E+00	3.04E-08	8.08E-11	3.99E-11	2.28E-08	6.34E-08	0.00E+00
99	0.	8.94E-09	8.57E-11	4.46E-10	0.00E+00	3.04E-08	7.63E-11	3.99E-11	2.28E-08	6.28E-08	0.00E+00
100	0.	8.30E-09	7.92E-11	4.13E-10	0.00E+00	3.04E-08	7.05E-11	3.99E-11	2.28E-08	6.21E-08	0.00E+00
101	0.	9.79E-09	9.42E-11	4.91E-10	0.00E+00	3.04E-08	8.38E-11	3.99E-11	2.28E-08	6.38E-08	0.00E+00
102	0.	1.09E-08	1.05E-10	5.47E-10	0.00E+00	3.04E-08	9.35E-11	3.99E-11	2.29E-08	6.50E-08	0.00E+00
103	0.	1.31E-08	1.25E-10	6.50E-10	0.00E+00	3.04E-08	1.11E-10	3.99E-11	2.30E-08	6.74E-08	0.00E+00
104	0.	1.57E-08	1.51E-10	7.88E-10	0.00E+00	3.04E-08	1.35E-10	3.99E-11	2.31E-08	7.04E-08	0.00E+00
105	0.	1.96E-08	1.87E-10	9.76E-10	0.00E+00	3.04E-08	1.67E-10	3.99E-11	2.32E-08	7.46E-08	0.00E+00
106	0.	2.35E-08	2.25E-10	1.17E-09	0.00E+00	3.04E-08	2.00E-10	3.99E-11	2.34E-08	7.89E-08	0.00E+00
107	0.	3.48E-08	3.33E-10	1.73E-09	0.00E+00	3.04E-08	2.96E-10	3.99E-11	2.38E-08	9.14E-08	0.00E+00
108	0.	5.72E-08	5.47E-10	2.85E-09	0.00E+00	3.04E-08	4.87E-10	3.99E-11	2.48E-08	1.16E-07	0.00E+00
109	0.	6.48E-08	6.22E-10	3.24E-09	0.00E+00	3.04E-08	5.54E-10	3.99E-11	2.51E-08	1.25E-07	0.00E+00
110	0.	5.20E-08	5.00E-10	2.60E-09	0.00E+00	3.04E-08	4.45E-10	3.99E-11	2.46E-08	1.11E-07	0.00E+00
111	0.	3.31E-08	3.17E-10	1.65E-09	0.00E+00	3.04E-08	2.82E-10	3.99E-11	2.38E-08	8.95E-08	0.00E+00
112	0.	3.76E-08	3.60E-10	1.88E-09	0.00E+00	3.04E-08	3.21E-10	3.99E-11	2.40E-08	9.46E-08	0.00E+00

8/11/29
15:43:49

upperdhs.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:58 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
113	0.	3.05E-08	2.92E-10	1.52E-09	0.00E+00	3.04E-08	2.60E-10	3.99E-11	2.37E-08	8.67E-08	0.00E+00
114	0.	2.45E-08	2.35E-10	1.22E-09	0.00E+00	3.04E-08	2.09E-10	3.99E-11	2.34E-08	8.00E-08	0.00E+00
115	0.	1.05E-08	1.00E-10	5.22E-10	0.00E+00	3.04E-08	8.93E-11	3.99E-11	2.28E-08	6.45E-08	0.00E+00
116	0.	1.12E-08	1.08E-10	5.61E-10	0.00E+00	3.04E-08	9.59E-11	3.99E-11	2.29E-08	6.53E-08	0.00E+00
117	0.	1.27E-08	1.21E-10	6.32E-10	0.00E+00	3.04E-08	1.08E-10	3.99E-11	2.29E-08	6.70E-08	0.00E+00
118	0.	1.50E-08	1.43E-10	7.46E-10	0.00E+00	3.04E-08	1.27E-10	3.99E-11	2.30E-08	6.95E-08	0.00E+00
119	0.	2.02E-08	1.93E-10	1.01E-09	0.00E+00	3.04E-08	1.72E-10	3.99E-11	2.32E-08	7.53E-08	0.00E+00
120	0.	2.77E-08	2.66E-10	1.38E-09	0.00E+00	3.04E-08	2.36E-10	3.99E-11	2.36E-08	8.36E-08	0.00E+00
121	0.	3.05E-08	2.92E-10	1.52E-09	0.00E+00	3.04E-08	2.60E-10	3.99E-11	2.37E-08	8.67E-08	0.00E+00
122	0.	3.27E-08	3.13E-10	1.63E-09	0.00E+00	3.04E-08	2.79E-10	3.99E-11	2.38E-08	8.92E-08	0.00E+00
123	0.	3.65E-08	3.50E-10	1.82E-09	0.00E+00	3.04E-08	3.12E-10	3.99E-11	2.39E-08	9.34E-08	0.00E+00
124	0.	4.73E-08	4.52E-10	2.36E-09	0.00E+00	3.04E-08	4.03E-10	3.99E-11	2.44E-08	1.05E-07	0.00E+00
125	0.	3.31E-08	3.18E-10	1.65E-09	0.00E+00	3.04E-08	2.83E-10	3.99E-11	2.38E-08	8.96E-08	0.00E+00
126	0.	2.21E-08	2.12E-10	1.10E-09	0.00E+00	3.04E-08	1.89E-10	3.99E-11	2.33E-08	7.74E-08	0.00E+00
127	0.	1.45E-08	1.38E-10	7.21E-10	0.00E+00	3.04E-08	1.23E-10	3.99E-11	2.30E-08	6.89E-08	0.00E+00
128	0.	9.93E-09	9.55E-11	4.98E-10	0.00E+00	3.04E-08	8.50E-11	3.99E-11	2.28E-08	6.39E-08	0.00E+00
129	436.	1.39E-09	1.33E-11	6.94E-11	0.00E+00	3.04E-08	1.19E-11	3.99E-11	2.25E-08	5.44E-08	0.00E+00
130	436.	1.62E-09	1.55E-11	8.09E-11	0.00E+00	3.04E-08	1.38E-11	3.99E-11	2.25E-08	5.47E-08	0.00E+00
131	436.	3.87E-09	3.71E-11	1.93E-10	0.00E+00	3.04E-08	3.30E-11	3.99E-11	2.26E-08	5.72E-08	0.00E+00
132	436.	1.60E-09	1.53E-11	7.99E-11	0.00E+00	3.04E-08	1.36E-11	3.99E-11	2.25E-08	5.47E-08	0.00E+00
133	436.	5.84E-09	5.61E-11	2.92E-10	0.00E+00	3.04E-08	4.99E-11	3.99E-11	2.27E-08	5.94E-08	0.00E+00
134	436.	7.37E-08	7.07E-10	3.68E-09	0.00E+00	3.04E-08	6.30E-10	3.99E-11	2.54E-08	1.35E-07	5.87E-05
135	436.	2.67E-09	2.56E-11	1.34E-10	0.00E+00	3.04E-08	2.28E-11	3.99E-11	2.25E-08	5.59E-08	0.00E+00
136	436.	3.18E-09	3.04E-11	1.58E-10	0.00E+00	3.04E-08	2.71E-11	3.99E-11	2.25E-08	5.64E-08	0.00E+00
137	436.	1.70E-09	1.64E-11	8.52E-11	0.00E+00	3.04E-08	1.46E-11	3.99E-11	2.25E-08	5.48E-08	0.00E+00
138	1090.	5.10E-09	4.90E-11	2.55E-10	0.00E+00	3.04E-08	4.36E-11	3.99E-11	2.26E-08	5.86E-08	0.00E+00
139	1090.	1.27E-08	1.22E-10	6.36E-10	0.00E+00	3.04E-08	1.09E-10	3.99E-11	2.29E-08	6.70E-08	0.00E+00
140	1090.	2.90E-09	2.78E-11	1.45E-10	0.00E+00	3.04E-08	2.47E-11	3.99E-11	2.25E-08	5.61E-08	0.00E+00
141	1090.	3.90E-09	3.74E-11	1.95E-10	0.00E+00	3.04E-08	3.33E-11	3.99E-11	2.26E-08	5.72E-08	0.00E+00
142	1090.	2.82E-09	2.70E-11	1.40E-10	0.00E+00	3.04E-08	2.40E-11	3.99E-11	2.25E-08	5.60E-08	0.00E+00
143	1090.	1.08E-08	1.03E-10	5.38E-10	0.00E+00	3.04E-08	9.20E-11	3.99E-11	2.29E-08	6.49E-08	0.00E+00
144	1090.	4.33E-09	4.15E-11	2.16E-10	0.00E+00	3.04E-08	3.69E-11	3.99E-11	2.26E-08	5.77E-08	0.00E+00
145	1090.	2.65E-09	2.54E-11	1.32E-10	0.00E+00	3.04E-08	2.26E-11	3.99E-11	2.25E-08	5.58E-08	0.00E+00
146	5378.	1.57E-09	1.51E-11	7.84E-11	0.00E+00	3.04E-08	1.34E-11	3.99E-11	2.25E-08	5.46E-08	0.00E+00
147	5378.	1.48E-09	1.41E-11	7.35E-11	0.00E+00	3.04E-08	1.26E-11	3.99E-11	2.25E-08	5.45E-08	0.00E+00
148	3578.	2.11E-09	2.02E-11	1.05E-10	0.00E+00	3.04E-08	1.80E-11	3.99E-11	2.25E-08	5.52E-08	0.00E+00
149	3860.	1.89E-09	1.81E-11	9.42E-11	0.00E+00	3.04E-08	1.61E-11	3.99E-11	2.25E-08	5.50E-08	0.00E+00
150	3860.	3.01E-09	2.89E-11	1.51E-10	0.00E+00	3.04E-08	2.57E-11	3.99E-11	2.25E-08	5.62E-08	0.00E+00
151	3860.	2.30E-09	2.21E-11	1.15E-10	0.00E+00	3.04E-08	1.97E-11	3.99E-11	2.25E-08	5.55E-08	0.00E+00
152	3860.	7.80E-09	7.48E-11	3.90E-10	0.00E+00	3.04E-08	6.66E-11	3.99E-11	2.27E-08	6.15E-08	0.00E+00
153	3860.	1.40E-08	1.34E-10	6.98E-10	0.00E+00	3.04E-08	1.19E-10	3.99E-11	2.30E-08	6.84E-08	0.00E+00
154	3073.	3.94E-09	3.77E-11	1.97E-10	0.00E+00	3.04E-08	3.36E-11	3.99E-11	2.26E-08	5.73E-08	0.00E+00
155	3073.	6.70E-09	6.43E-11	3.35E-10	0.00E+00	3.04E-08	5.72E-11	3.99E-11	2.27E-08	6.03E-08	0.00E+00
156	3073.	5.53E-09	5.30E-11	2.76E-10	0.00E+00	3.04E-08	4.72E-11	3.99E-11	2.26E-08	5.90E-08	0.00E+00
157	3073.	6.72E-09	6.43E-11	3.35E-10	0.00E+00	3.04E-08	5.72E-11	3.99E-11	2.27E-08	6.03E-08	0.00E+00
158	3073.	7.16E-09	6.90E-11	3.59E-10	0.00E+00	3.04E-08	6.14E-11	3.99E-11	2.27E-08	6.08E-08	0.00E+00
159	3073.	6.80E-09	6.53E-11	3.40E-10	0.00E+00	3.04E-08	5.81E-11	3.99E-11	2.27E-08	6.04E-08	0.00E+00
160	3073.	4.12E-09	3.94E-11	2.05E-10	0.00E+00	3.04E-08	3.51E-11	3.99E-11	2.26E-08	5.75E-08	0.00E+00
161	2808.	2.20E-09	2.11E-11	1.10E-10	0.00E+00	3.04E-08	1.88E-11	3.99E-11	2.25E-08	5.53E-08	0.00E+00
162	2808.	2.82E-09	2.70E-11	1.41E-10	0.00E+00	3.04E-08	2.40E-11	3.99E-11	2.25E-08	5.60E-08	0.00E+00
163	2808.	3.82E-09	3.67E-11	1.91E-10	0.00E+00	3.04E-08	3.27E-11	3.99E-11	2.26E-08	5.71E-08	0.00E+00
164	2808.	2.03E-09	1.94E-11	1.01E-10	0.00E+00	3.04E-08	1.73E-11	3.99E-11	2.25E-08	5.51E-08	0.00E+00
165	2808.	2.67E-09	2.57E-11	1.34E-10	0.00E+00	3.04E-08	2.29E-11	3.99E-11	2.25E-08	5.59E-08	0.00E+00
166	4574.	1.33E-09	1.27E-11	6.62E-11	0.00E+00	3.04E-08	1.13E-11	3.99E-11	2.25E-08	5.44E-08	0.00E+00
167	4574.	1.69E-09	1.63E-11	8.46E-11	0.00E+00	3.04E-08	1.45E-11	3.99E-11	2.25E-08	5.48E-08	0.00E+00
168	4574.	1.15E-09	1.10E-11	5.74E-11	0.00E+00	3.04E-08	9.81E-12	3.99E-11	2.25E-08	5.42E-08	0.00E+00
169	4574.	1.52E-09	1.46E-11	7.58E-11	0.00E+00	3.04E-08	1.30E-11	3.99E-11	2.25E-08	5.46E-08	0.00E+00

19/11/29
15:43:49

upperdhs.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:58 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
170	4574.	1.33E-09	1.27E-11	6.64E-11	0.00E+00	3.04E-08	1.13E-11	3.99E-11	2.25E-08	5.44E-08	0.00E+00
171	0.	2.67E-08	2.57E-10	1.34E-09	0.00E+00	3.04E-08	2.29E-10	3.99E-11	2.35E-08	8.26E-08	0.00E+00
172	0.	2.67E-08	2.56E-10	1.33E-09	0.00E+00	3.04E-08	2.28E-10	3.99E-11	2.35E-08	8.25E-08	0.00E+00
173	0.	2.45E-08	2.34E-10	1.22E-09	0.00E+00	3.04E-08	2.09E-10	3.99E-11	2.34E-08	8.00E-08	0.00E+00
174	0.	1.76E-08	1.68E-10	8.77E-10	0.00E+00	3.04E-08	1.50E-10	3.99E-11	2.31E-08	7.24E-08	0.00E+00
175	0.	1.84E-08	1.76E-10	9.16E-10	0.00E+00	3.04E-08	1.56E-10	3.99E-11	2.32E-08	7.33E-08	0.00E+00
176	0.	1.41E-08	1.36E-10	7.07E-10	0.00E+00	3.04E-08	1.21E-10	3.99E-11	2.30E-08	6.86E-08	0.00E+00
177	0.	1.31E-08	1.25E-10	6.53E-10	0.00E+00	3.04E-08	1.12E-10	3.99E-11	2.30E-08	6.74E-08	0.00E+00
178	0.	4.13E-08	3.98E-10	2.07E-09	0.00E+00	3.04E-08	3.54E-10	3.99E-11	2.41E-08	9.88E-08	0.00E+00
179	0.	3.13E-08	3.00E-10	1.56E-09	0.00E+00	3.04E-08	2.67E-10	3.99E-11	2.37E-08	8.76E-08	0.00E+00
180	0.	3.11E-08	2.98E-10	1.55E-09	0.00E+00	3.04E-08	2.65E-10	3.99E-11	2.37E-08	8.74E-08	0.00E+00
181	0.	2.74E-08	2.63E-10	1.37E-09	0.00E+00	3.04E-08	2.34E-10	3.99E-11	2.35E-08	8.33E-08	0.00E+00
182	0.	5.17E-08	4.96E-10	2.59E-09	0.00E+00	3.04E-08	4.42E-10	3.99E-11	2.45E-08	1.10E-07	0.00E+00
183	0.	7.24E-08	6.90E-10	3.59E-09	0.00E+00	3.04E-08	6.14E-10	3.99E-11	2.54E-08	1.33E-07	0.00E+00
184	0.	8.87E-08	8.50E-10	4.43E-09	0.00E+00	3.04E-08	7.57E-10	3.99E-11	2.61E-08	1.51E-07	0.00E+00
185	0.	1.04E-07	9.93E-10	5.17E-09	0.00E+00	3.04E-08	8.84E-10	3.99E-11	2.67E-08	1.68E-07	0.00E+00
186	0.	1.04E-07	9.96E-10	5.19E-09	0.00E+00	3.04E-08	8.87E-10	3.99E-11	2.67E-08	1.68E-07	0.00E+00
187	0.	3.56E-07	3.40E-09	1.77E-08	0.00E+00	3.04E-08	3.03E-09	3.99E-11	3.70E-08	4.48E-07	0.00E+00
188	0.	3.55E-07	3.40E-09	1.77E-08	0.00E+00	3.04E-08	3.03E-09	3.99E-11	3.70E-08	4.46E-07	0.00E+00
189	0.	2.67E-07	2.56E-09	1.33E-08	0.00E+00	3.04E-08	2.28E-09	3.99E-11	3.34E-08	3.49E-07	0.00E+00
190	0.	2.16E-07	2.07E-09	1.08E-08	0.00E+00	3.04E-08	1.84E-09	3.99E-11	3.13E-08	2.93E-07	0.00E+00
191	0.	1.87E-07	1.79E-09	9.31E-09	0.00E+00	3.04E-08	1.59E-09	3.99E-11	3.01E-08	2.60E-07	0.00E+00
192	0.	3.53E-07	3.39E-09	1.76E-08	0.00E+00	3.04E-08	3.01E-09	3.99E-11	3.69E-08	4.45E-07	0.00E+00
193	0.	3.52E-07	3.37E-09	1.75E-08	0.00E+00	3.04E-08	3.00E-09	3.99E-11	3.68E-08	4.43E-07	0.00E+00
194	0.	2.31E-07	2.22E-09	1.15E-08	0.00E+00	3.04E-08	1.97E-09	3.99E-11	3.19E-08	3.09E-07	0.00E+00
195	0.	1.87E-07	1.79E-09	9.33E-09	0.00E+00	3.04E-08	1.59E-09	3.99E-11	3.01E-08	2.61E-07	0.00E+00
196	0.	1.54E-07	1.47E-09	7.67E-09	0.00E+00	3.04E-08	1.31E-09	3.99E-11	2.87E-08	2.24E-07	0.00E+00
197	0.	2.77E-07	2.65E-09	1.38E-08	0.00E+00	3.04E-08	2.36E-09	3.99E-11	3.38E-08	3.60E-07	0.00E+00
198	0.	2.47E-07	2.37E-09	1.23E-08	0.00E+00	3.04E-08	2.11E-09	3.99E-11	3.25E-08	3.27E-07	0.00E+00
199	0.	2.00E-07	1.92E-09	1.00E-08	0.00E+00	3.04E-08	1.71E-09	3.99E-11	3.06E-08	2.75E-07	0.00E+00
200	0.	1.58E-07	1.52E-09	7.90E-09	0.00E+00	3.04E-08	1.35E-09	3.99E-11	2.89E-08	2.28E-07	0.00E+00
201	0.	3.22E-08	3.08E-10	1.60E-09	0.00E+00	3.04E-08	2.74E-10	3.99E-11	2.37E-08	8.86E-08	0.00E+00
202	0.	1.37E-07	1.31E-09	6.84E-09	0.00E+00	3.04E-08	1.17E-09	3.99E-11	2.80E-08	2.05E-07	0.00E+00
203	0.	2.07E-07	1.99E-09	1.03E-08	0.00E+00	3.04E-08	1.77E-09	3.99E-11	3.09E-08	2.83E-07	0.00E+00
204	0.	1.87E-07	1.79E-09	9.33E-09	0.00E+00	3.04E-08	1.59E-09	3.99E-11	3.01E-08	2.60E-07	0.00E+00
205	0.	1.53E-07	1.47E-09	7.67E-09	0.00E+00	3.04E-08	1.31E-09	3.99E-11	2.87E-08	2.23E-07	0.00E+00
TOTAL BURDEN =										5.87E-05	

89/11/29
15:43:49

upperdhs.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:58 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
1	0.	4.90E-08	3.97E-10	2.05E-09	0.00E+00	1.28E-08	2.75E-10	3.99E-11	2.60E-08	9.05E-08	0.00E+00
2	0.	2.02E-08	1.64E-10	8.48E-10	0.00E+00	1.28E-08	1.13E-10	3.99E-11	2.36E-08	5.78E-08	0.00E+00
3	0.	2.36E-08	1.91E-10	9.88E-10	0.00E+00	1.28E-08	1.32E-10	3.99E-11	2.39E-08	6.16E-08	0.00E+00
4	0.	3.31E-08	2.69E-10	1.39E-09	0.00E+00	1.28E-08	1.86E-10	3.99E-11	2.47E-08	7.25E-08	0.00E+00
5	0.	3.03E-08	2.45E-10	1.27E-09	0.00E+00	1.28E-08	1.70E-10	3.99E-11	2.44E-08	6.93E-08	0.00E+00
6	0.	2.25E-08	1.82E-10	9.43E-10	0.00E+00	1.28E-08	1.26E-10	3.99E-11	2.38E-08	6.04E-08	0.00E+00
7	0.	1.67E-08	1.36E-10	7.01E-10	0.00E+00	1.28E-08	9.39E-11	3.99E-11	2.33E-08	5.38E-08	0.00E+00
8	0.	1.30E-08	1.06E-10	5.45E-10	0.00E+00	1.28E-08	7.30E-11	3.99E-11	2.30E-08	4.96E-08	0.00E+00
9	0.	1.04E-08	8.45E-11	4.37E-10	0.00E+00	1.28E-08	5.84E-11	3.99E-11	2.28E-08	4.67E-08	0.00E+00
10	0.	2.71E-09	2.07E-11	1.07E-10	0.00E+00	1.28E-08	1.43E-11	3.99E-11	2.22E-08	3.79E-08	0.00E+00
11	0.	1.21E-07	9.84E-10	5.09E-09	0.00E+00	1.28E-08	6.81E-10	3.99E-11	3.19E-08	1.73E-07	0.00E+00
12	0.	1.21E-07	9.79E-10	5.06E-09	0.00E+00	1.28E-08	6.77E-10	3.99E-11	3.18E-08	1.72E-07	0.00E+00
13	0.	7.32E-08	5.96E-10	3.08E-09	0.00E+00	1.28E-08	4.12E-10	3.99E-11	2.80E-08	1.18E-07	0.00E+00
14	0.	5.56E-08	4.51E-10	2.33E-09	0.00E+00	1.28E-08	3.12E-10	3.99E-11	2.65E-08	9.81E-08	0.00E+00
15	0.	3.59E-08	2.92E-10	1.51E-09	0.00E+00	1.28E-08	2.02E-10	3.99E-11	2.49E-08	7.56E-08	0.00E+00
16	0.	2.37E-08	1.92E-10	9.94E-10	0.00E+00	1.28E-08	1.33E-10	3.99E-11	2.39E-08	6.18E-08	0.00E+00
17	0.	1.67E-08	1.36E-10	7.01E-10	0.00E+00	1.28E-08	9.39E-11	3.99E-11	2.33E-08	5.38E-08	0.00E+00
18	0.	1.23E-08	1.00E-10	5.17E-10	0.00E+00	1.28E-08	6.93E-11	3.99E-11	2.30E-08	4.89E-08	0.00E+00
19	0.	1.76E-09	1.42E-11	7.33E-11	0.00E+00	1.28E-08	9.81E-12	3.99E-11	2.21E-08	3.68E-08	0.00E+00
20	0.	4.42E-09	3.58E-11	1.85E-10	0.00E+00	1.28E-08	2.47E-11	3.99E-11	2.23E-08	3.99E-08	0.00E+00
21	0.	7.14E-08	5.79E-10	2.99E-09	0.00E+00	1.28E-08	4.01E-10	3.99E-11	2.78E-08	1.16E-07	0.00E+00
22	0.	6.14E-08	4.98E-10	2.57E-09	0.00E+00	1.28E-08	3.45E-10	3.99E-11	2.70E-08	1.05E-07	0.00E+00
23	0.	4.95E-08	4.01E-10	2.07E-09	0.00E+00	1.28E-08	2.77E-10	3.99E-11	2.60E-08	9.12E-08	0.00E+00
24	0.	4.25E-08	3.45E-10	1.78E-09	0.00E+00	1.28E-08	2.39E-10	3.99E-11	2.55E-08	8.32E-08	0.00E+00
25	0.	2.65E-08	2.15E-10	1.11E-09	0.00E+00	1.28E-08	1.48E-10	3.99E-11	2.41E-08	6.50E-08	0.00E+00
26	0.	1.96E-08	1.59E-10	8.22E-10	0.00E+00	1.28E-08	1.10E-10	3.99E-11	2.36E-08	5.71E-08	0.00E+00
27	0.	1.46E-08	1.19E-10	6.14E-10	0.00E+00	1.28E-08	8.22E-11	3.99E-11	2.32E-08	5.15E-08	0.00E+00
28	0.	1.57E-09	1.27E-11	6.56E-11	0.00E+00	1.28E-08	8.79E-12	3.99E-11	2.21E-08	3.66E-08	0.00E+00
29	0.	2.75E-09	2.23E-11	1.15E-10	0.00E+00	1.28E-08	1.54E-11	3.99E-11	2.22E-08	3.80E-08	0.00E+00
30	0.	1.07E-08	8.67E-11	4.48E-10	0.00E+00	1.28E-08	6.00E-11	3.99E-11	2.29E-08	4.70E-08	0.00E+00
31	0.	4.41E-08	3.56E-10	1.84E-09	0.00E+00	1.28E-08	2.47E-10	3.99E-11	2.56E-08	8.49E-08	0.00E+00
32	0.	5.08E-08	4.12E-10	2.13E-09	0.00E+00	1.28E-08	2.85E-10	3.99E-11	2.61E-08	9.26E-08	0.00E+00
33	0.	4.56E-08	3.71E-10	1.92E-09	0.00E+00	1.28E-08	2.57E-10	3.99E-11	2.57E-08	8.67E-08	0.00E+00
34	0.	3.13E-08	2.53E-10	1.31E-09	0.00E+00	1.28E-08	1.75E-10	3.99E-11	2.45E-08	7.04E-08	0.00E+00
35	0.	2.15E-08	1.75E-10	9.05E-10	0.00E+00	1.28E-08	1.21E-10	3.99E-11	2.37E-08	5.93E-08	0.00E+00
36	0.	1.58E-08	1.28E-10	6.63E-10	0.00E+00	1.28E-08	8.87E-11	3.99E-11	2.33E-08	5.28E-08	0.00E+00
37	0.	1.69E-09	1.37E-11	7.07E-11	0.00E+00	1.28E-08	9.47E-12	3.99E-11	2.21E-08	3.68E-08	0.00E+00
38	0.	2.87E-09	2.33E-11	1.20E-10	0.00E+00	1.28E-08	1.61E-11	3.99E-11	2.22E-08	3.81E-08	0.00E+00
39	0.	4.99E-09	4.06E-11	2.10E-10	0.00E+00	1.28E-08	2.81E-11	3.99E-11	2.24E-08	4.05E-08	0.00E+00
40	0.	1.87E-08	1.52E-10	7.84E-10	0.00E+00	1.28E-08	1.05E-10	3.99E-11	2.35E-08	5.61E-08	0.00E+00
41	0.	3.95E-08	3.22E-10	1.66E-09	0.00E+00	1.28E-08	2.23E-10	3.99E-11	2.52E-08	7.98E-08	0.00E+00
42	0.	4.80E-08	3.90E-10	2.01E-09	0.00E+00	1.28E-08	2.70E-10	3.99E-11	2.59E-08	8.94E-08	0.00E+00
43	0.	3.13E-08	2.55E-10	1.32E-09	0.00E+00	1.28E-08	1.77E-10	3.99E-11	2.45E-08	7.05E-08	0.00E+00
44	0.	2.38E-08	1.94E-10	1.00E-09	0.00E+00	1.28E-08	1.34E-10	3.99E-11	2.39E-08	6.19E-08	0.00E+00
45	0.	1.76E-08	1.43E-10	7.39E-10	0.00E+00	1.28E-08	9.90E-11	3.99E-11	2.34E-08	5.49E-08	0.00E+00
46	0.	1.71E-09	1.38E-11	7.14E-11	0.00E+00	1.28E-08	9.56E-12	3.99E-11	2.21E-08	3.68E-08	0.00E+00
47	0.	3.00E-09	2.43E-11	1.26E-10	0.00E+00	1.28E-08	1.68E-11	3.99E-11	2.22E-08	3.82E-08	0.00E+00
48	0.	4.47E-09	3.61E-11	1.87E-10	0.00E+00	1.28E-08	2.50E-11	3.99E-11	2.23E-08	3.99E-08	0.00E+00
49	0.	1.17E-08	9.49E-11	4.91E-10	0.00E+00	1.28E-08	6.57E-11	3.99E-11	2.29E-08	4.81E-08	0.00E+00
50	0.	2.76E-08	2.24E-10	1.16E-09	0.00E+00	1.28E-08	1.55E-10	3.99E-11	2.42E-08	6.63E-08	0.00E+00
51	0.	4.41E-08	3.59E-10	1.85E-09	0.00E+00	1.28E-08	2.48E-10	3.99E-11	2.56E-08	8.50E-08	0.00E+00
52	0.	2.88E-08	2.33E-10	1.20E-09	0.00E+00	1.28E-08	1.61E-10	3.99E-11	2.43E-08	6.76E-08	0.00E+00
53	0.	2.39E-08	1.94E-10	1.00E-09	0.00E+00	1.28E-08	1.34E-10	3.99E-11	2.39E-08	6.20E-08	0.00E+00
54	0.	1.84E-08	1.49E-10	7.71E-10	0.00E+00	1.28E-08	1.03E-10	3.99E-11	2.35E-08	5.58E-08	0.00E+00
55	0.	1.92E-09	1.55E-11	8.03E-11	0.00E+00	1.28E-08	1.08E-11	3.99E-11	2.21E-08	3.70E-08	0.00E+00

89/11/29
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upperdhs.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:59 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
56	0.	2.81E-09	2.28E-11	1.18E-10	0.00E+00	1.28E-08	1.58E-11	3.99E-11	2.22E-08	3.80E-08	0.00E+00
57	0.	4.17E-09	3.37E-11	1.74E-10	0.00E+00	1.28E-08	2.33E-11	3.99E-11	2.23E-08	3.96E-08	0.00E+00
58	0.	7.75E-09	6.30E-11	3.26E-10	0.00E+00	1.28E-08	4.36E-11	3.99E-11	2.26E-08	4.37E-08	0.00E+00
59	0.	1.70E-08	1.38E-10	7.14E-10	0.00E+00	1.28E-08	9.56E-11	3.99E-11	2.34E-08	5.42E-08	0.00E+00
60	0.	2.93E-08	2.38E-10	1.23E-09	0.00E+00	1.28E-08	1.65E-10	3.99E-11	2.44E-08	6.82E-08	0.00E+00
61	0.	2.22E-08	1.80E-10	9.30E-10	0.00E+00	1.28E-08	1.25E-10	3.99E-11	2.38E-08	6.01E-08	0.00E+00
62	0.	2.04E-08	1.65E-10	8.54E-10	0.00E+00	1.28E-08	1.14E-10	3.99E-11	2.36E-08	5.80E-08	0.00E+00
63	0.	1.81E-08	1.47E-10	7.58E-10	0.00E+00	1.28E-08	1.02E-10	3.99E-11	2.35E-08	5.54E-08	0.00E+00
64	0.	1.33E-08	1.08E-10	5.58E-10	0.00E+00	1.28E-08	7.47E-11	3.99E-11	2.31E-08	5.00E-08	0.00E+00
65	0.	3.13E-09	2.54E-11	1.31E-10	0.00E+00	1.28E-08	1.76E-11	3.99E-11	2.22E-08	3.84E-08	0.00E+00
66	0.	3.28E-09	2.65E-11	1.37E-10	0.00E+00	1.28E-08	1.83E-11	3.99E-11	2.22E-08	3.86E-08	0.00E+00
67	0.	3.62E-09	2.93E-11	1.52E-10	0.00E+00	1.28E-08	2.03E-11	3.99E-11	2.23E-08	3.89E-08	0.00E+00
68	0.	3.86E-09	3.14E-11	1.62E-10	0.00E+00	1.28E-08	2.18E-11	3.99E-11	2.23E-08	3.92E-08	0.00E+00
69	0.	3.95E-09	3.19E-11	1.65E-10	0.00E+00	1.28E-08	2.21E-11	3.99E-11	2.23E-08	3.93E-08	0.00E+00
70	0.	3.86E-09	3.13E-11	1.62E-10	0.00E+00	1.28E-08	2.17E-11	3.99E-11	2.23E-08	3.92E-08	0.00E+00
71	0.	3.71E-09	3.01E-11	1.55E-10	0.00E+00	1.28E-08	2.08E-11	3.99E-11	2.23E-08	3.91E-08	0.00E+00
72	0.	3.43E-09	2.79E-11	1.44E-10	0.00E+00	1.28E-08	1.93E-11	3.99E-11	2.23E-08	3.87E-08	0.00E+00
73	0.	3.22E-09	2.61E-11	1.35E-10	0.00E+00	1.28E-08	1.81E-11	3.99E-11	2.22E-08	3.85E-08	0.00E+00
74	0.	2.50E-09	2.03E-11	1.05E-10	0.00E+00	1.28E-08	1.41E-11	3.99E-11	2.22E-08	3.77E-08	0.00E+00
75	0.	1.91E-09	1.55E-11	8.03E-11	0.00E+00	1.28E-08	1.08E-11	3.99E-11	2.21E-08	3.70E-08	0.00E+00
76	0.	2.08E-09	1.69E-11	8.73E-11	0.00E+00	1.28E-08	1.17E-11	3.99E-11	2.21E-08	3.72E-08	0.00E+00
77	0.	2.29E-09	1.86E-11	9.62E-11	0.00E+00	1.28E-08	1.29E-11	3.99E-11	2.22E-08	3.74E-08	0.00E+00
78	0.	2.77E-09	2.24E-11	1.16E-10	0.00E+00	1.28E-08	1.55E-11	3.99E-11	2.22E-08	3.80E-08	0.00E+00
79	0.	3.38E-09	2.74E-11	1.41E-10	0.00E+00	1.28E-08	1.89E-11	3.99E-11	2.23E-08	3.87E-08	0.00E+00
80	0.	3.86E-09	3.14E-11	1.62E-10	0.00E+00	1.28E-08	2.18E-11	3.99E-11	2.23E-08	3.92E-08	0.00E+00
81	0.	4.26E-09	3.45E-11	1.78E-10	0.00E+00	1.28E-08	2.39E-11	3.99E-11	2.23E-08	3.97E-08	0.00E+00
82	0.	4.69E-09	3.80E-11	1.96E-10	0.00E+00	1.28E-08	2.63E-11	3.99E-11	2.24E-08	4.02E-08	0.00E+00
83	0.	4.90E-09	3.97E-11	2.05E-10	0.00E+00	1.28E-08	2.75E-11	3.99E-11	2.24E-08	4.04E-08	0.00E+00
84	0.	4.69E-09	3.80E-11	1.96E-10	0.00E+00	1.28E-08	2.63E-11	3.99E-11	2.24E-08	4.02E-08	0.00E+00
85	0.	4.75E-09	3.85E-11	1.99E-10	0.00E+00	1.28E-08	2.66E-11	3.99E-11	2.24E-08	4.02E-08	0.00E+00
86	0.	4.44E-09	3.59E-11	1.85E-10	0.00E+00	1.28E-08	2.48E-11	3.99E-11	2.23E-08	3.99E-08	0.00E+00
87	0.	4.50E-09	3.64E-11	1.88E-10	0.00E+00	1.28E-08	2.52E-11	3.99E-11	2.23E-08	4.00E-08	0.00E+00
88	0.	4.59E-09	3.72E-11	1.92E-10	0.00E+00	1.28E-08	2.58E-11	3.99E-11	2.24E-08	4.01E-08	0.00E+00
89	0.	4.87E-09	3.95E-11	2.04E-10	0.00E+00	1.28E-08	2.73E-11	3.99E-11	2.24E-08	4.04E-08	0.00E+00
90	0.	4.83E-09	3.93E-11	2.03E-10	0.00E+00	1.28E-08	2.72E-11	3.99E-11	2.24E-08	4.03E-08	0.00E+00
91	0.	1.97E-09	1.60E-11	8.28E-11	0.00E+00	1.28E-08	1.11E-11	3.99E-11	2.21E-08	3.71E-08	0.00E+00
92	0.	2.36E-09	1.91E-11	9.88E-11	0.00E+00	1.28E-08	1.32E-11	3.99E-11	2.22E-08	3.75E-08	0.00E+00
93	0.	3.34E-09	2.70E-11	1.40E-10	0.00E+00	1.28E-08	1.87E-11	3.99E-11	2.23E-08	3.86E-08	0.00E+00
94	0.	3.95E-09	3.21E-11	1.66E-10	0.00E+00	1.28E-08	2.22E-11	3.99E-11	2.23E-08	3.93E-08	0.00E+00
95	0.	4.77E-09	3.87E-11	2.00E-10	0.00E+00	1.28E-08	2.68E-11	3.99E-11	2.24E-08	4.03E-08	0.00E+00
96	0.	4.96E-09	4.03E-11	2.08E-10	0.00E+00	1.28E-08	2.79E-11	3.99E-11	2.24E-08	4.05E-08	0.00E+00
97	0.	4.96E-09	4.03E-11	2.08E-10	0.00E+00	1.28E-08	2.79E-11	3.99E-11	2.24E-08	4.05E-08	0.00E+00
98	0.	4.08E-09	3.29E-11	1.70E-10	0.00E+00	1.28E-08	2.28E-11	3.99E-11	2.23E-08	3.95E-08	0.00E+00
99	0.	3.83E-09	3.11E-11	1.61E-10	0.00E+00	1.28E-08	2.15E-11	3.99E-11	2.23E-08	3.92E-08	0.00E+00
100	0.	3.56E-09	2.87E-11	1.48E-10	0.00E+00	1.28E-08	1.99E-11	3.99E-11	2.23E-08	3.89E-08	0.00E+00
101	0.	4.20E-09	3.42E-11	1.77E-10	0.00E+00	1.28E-08	2.36E-11	3.99E-11	2.23E-08	3.96E-08	0.00E+00
102	0.	4.68E-09	3.81E-11	1.97E-10	0.00E+00	1.28E-08	2.64E-11	3.99E-11	2.24E-08	4.02E-08	0.00E+00
103	0.	5.59E-09	4.52E-11	2.34E-10	0.00E+00	1.28E-08	3.13E-11	3.99E-11	2.24E-08	4.12E-08	0.00E+00
104	0.	6.75E-09	5.49E-11	2.84E-10	0.00E+00	1.28E-08	3.80E-11	3.99E-11	2.25E-08	4.25E-08	0.00E+00
105	0.	8.39E-09	6.79E-11	3.51E-10	0.00E+00	1.28E-08	4.70E-11	3.99E-11	2.27E-08	4.44E-08	0.00E+00
106	0.	1.01E-08	8.16E-11	4.22E-10	0.00E+00	1.28E-08	5.65E-11	3.99E-11	2.28E-08	4.63E-08	0.00E+00
107	0.	1.49E-08	1.21E-10	6.24E-10	0.00E+00	1.28E-08	8.35E-11	3.99E-11	2.32E-08	5.18E-08	0.00E+00
108	0.	2.45E-08	1.99E-10	1.03E-09	0.00E+00	1.28E-08	1.37E-10	3.99E-11	2.40E-08	6.27E-08	0.00E+00
109	0.	2.78E-08	2.26E-10	1.17E-09	0.00E+00	1.28E-08	1.56E-10	3.99E-11	2.42E-08	6.64E-08	0.00E+00
110	0.	2.23E-08	1.81E-10	9.37E-10	0.00E+00	1.28E-08	1.25E-10	3.99E-11	2.38E-08	6.02E-08	0.00E+00
111	0.	1.42E-08	1.15E-10	5.93E-10	0.00E+00	1.28E-08	7.94E-11	3.99E-11	2.31E-08	5.09E-08	0.00E+00
112	0.	1.61E-08	1.31E-10	6.75E-10	0.00E+00	1.28E-08	9.04E-11	3.99E-11	2.33E-08	5.32E-08	0.00E+00

8/11/29
15:43:49

upperdhs.out

41

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:41:59 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
113	0.	1.31E-08	1.06E-10	5.47E-10	0.00E+00	1.28E-08	7.33E-11	3.99E-11	2.30E-08	4.97E-08	0.00E+00
114	0.	1.05E-08	8.51E-11	4.40E-10	0.00E+00	1.28E-08	5.89E-11	3.99E-11	2.28E-08	4.68E-08	0.00E+00
115	0.	4.50E-09	3.64E-11	1.88E-10	0.00E+00	1.28E-08	2.52E-11	3.99E-11	2.23E-08	3.99E-08	0.00E+00
116	0.	4.80E-09	3.91E-11	2.02E-10	0.00E+00	1.28E-08	2.70E-11	3.99E-11	2.24E-08	4.03E-08	0.00E+00
117	0.	5.44E-09	4.40E-11	2.27E-10	0.00E+00	1.28E-08	3.05E-11	3.99E-11	2.24E-08	4.10E-08	0.00E+00
118	0.	6.41E-09	5.19E-11	2.68E-10	0.00E+00	1.28E-08	3.59E-11	3.99E-11	2.25E-08	4.21E-08	0.00E+00
119	0.	8.66E-09	7.02E-11	3.63E-10	0.00E+00	1.28E-08	4.85E-11	3.99E-11	2.27E-08	4.47E-08	0.00E+00
120	0.	1.19E-08	9.63E-11	4.98E-10	0.00E+00	1.28E-08	6.66E-11	3.99E-11	2.29E-08	4.53E-08	0.00E+00
121	0.	1.31E-08	1.06E-10	5.47E-10	0.00E+00	1.28E-08	7.33E-11	3.99E-11	2.30E-08	4.97E-08	0.00E+00
122	0.	1.40E-08	1.14E-10	5.88E-10	0.00E+00	1.28E-08	7.87E-11	3.99E-11	2.31E-08	5.08E-08	0.00E+00
123	0.	1.57E-08	1.27E-10	6.56E-10	0.00E+00	1.28E-08	8.79E-11	3.99E-11	2.33E-08	5.26E-08	0.00E+00
124	0.	2.03E-08	1.64E-10	8.48E-10	0.00E+00	1.28E-08	1.13E-10	3.99E-11	2.36E-08	5.79E-08	0.00E+00
125	0.	1.42E-08	1.15E-10	5.95E-10	0.00E+00	1.28E-08	7.97E-11	3.99E-11	2.31E-08	5.10E-08	0.00E+00
126	0.	9.48E-09	7.68E-11	3.97E-10	0.00E+00	1.28E-08	5.32E-11	3.99E-11	2.28E-08	4.56E-08	0.00E+00
127	0.	6.20E-09	5.02E-11	2.59E-10	0.00E+00	1.28E-08	3.47E-11	3.99E-11	2.25E-08	4.19E-08	0.00E+00
128	0.	4.25E-09	3.46E-11	1.79E-10	0.00E+00	1.28E-08	2.40E-11	3.99E-11	2.23E-08	3.97E-08	0.00E+00
129	436.	5.96E-10	4.83E-12	2.50E-11	0.00E+00	1.28E-08	3.34E-12	3.99E-11	2.20E-08	3.55E-08	0.00E+00
130	436.	6.96E-10	5.63E-12	2.91E-11	0.00E+00	1.28E-08	3.90E-12	3.99E-11	2.20E-08	3.56E-08	0.00E+00
131	436.	1.66E-09	1.34E-11	6.95E-11	0.00E+00	1.28E-08	9.30E-12	3.99E-11	2.21E-08	3.67E-08	0.00E+00
132	436.	6.87E-10	5.56E-12	2.87E-11	0.00E+00	1.28E-08	3.85E-12	3.99E-11	2.20E-08	3.56E-08	0.00E+00
133	436.	2.50E-09	2.03E-11	1.05E-10	0.00E+00	1.28E-08	1.41E-11	3.99E-11	2.22E-08	3.77E-08	0.00E+00
134	436.	3.16E-08	2.56E-10	1.33E-09	0.00E+00	1.28E-08	1.77E-10	3.99E-11	2.46E-08	7.08E-08	0.00E+00
135	436.	1.15E-09	9.30E-12	4.80E-11	0.00E+00	1.28E-08	6.43E-12	3.99E-11	2.21E-08	3.61E-08	0.00E+00
136	436.	1.36E-09	1.10E-11	5.70E-11	0.00E+00	1.28E-08	7.64E-12	3.99E-11	2.21E-08	3.64E-08	0.00E+00
137	436.	7.29E-10	5.93E-12	3.07E-11	0.00E+00	1.28E-08	4.10E-12	3.99E-11	2.20E-08	3.57E-08	0.00E+00
138	1090.	2.19E-09	1.78E-11	9.18E-11	0.00E+00	1.28E-08	1.23E-11	3.99E-11	2.22E-08	3.73E-08	0.00E+00
139	1090.	5.44E-09	4.43E-11	2.29E-10	0.00E+00	1.28E-08	3.06E-11	3.99E-11	2.24E-08	4.10E-08	0.00E+00
140	1090.	1.24E-09	1.01E-11	5.21E-11	0.00E+00	1.28E-08	6.97E-12	3.99E-11	2.21E-08	3.62E-08	0.00E+00
141	1090.	1.67E-09	1.36E-11	7.01E-11	0.00E+00	1.28E-08	9.39E-12	3.99E-11	2.21E-08	3.67E-08	0.00E+00
142	1090.	1.21E-09	9.78E-12	5.05E-11	0.00E+00	1.28E-08	6.77E-12	3.99E-11	2.21E-08	3.62E-08	0.00E+00
143	1090.	4.62E-09	3.75E-11	1.94E-10	0.00E+00	1.28E-08	2.59E-11	3.99E-11	2.24E-08	4.01E-08	0.00E+00
144	1090.	1.86E-09	1.50E-11	7.77E-11	0.00E+00	1.28E-08	1.04E-11	3.99E-11	2.21E-08	3.69E-08	0.00E+00
145	1090.	1.14E-09	9.22E-12	4.77E-11	0.00E+00	1.28E-08	6.38E-12	3.99E-11	2.21E-08	3.61E-08	0.00E+00
146	5378.	6.72E-10	5.46E-12	2.82E-11	0.00E+00	1.28E-08	3.78E-12	3.99E-11	2.20E-08	3.56E-08	0.00E+00
147	5378.	6.32E-10	5.12E-12	2.64E-11	0.00E+00	1.28E-08	3.54E-12	3.99E-11	2.20E-08	3.56E-08	0.00E+00
148	3578.	9.03E-10	7.32E-12	3.79E-11	0.00E+00	1.28E-08	5.07E-12	3.99E-11	2.21E-08	3.59E-08	0.00E+00
149	3860.	8.08E-10	6.56E-12	3.39E-11	0.00E+00	1.28E-08	4.54E-12	3.99E-11	2.20E-08	3.58E-08	0.00E+00
150	3860.	1.29E-09	1.05E-11	5.42E-11	0.00E+00	1.28E-08	7.25E-12	3.99E-11	2.21E-08	3.63E-08	0.00E+00
151	3860.	9.88E-10	8.01E-12	4.14E-11	0.00E+00	1.28E-08	5.55E-12	3.99E-11	2.21E-08	3.60E-08	0.00E+00
152	3860.	3.34E-09	2.71E-11	1.40E-10	0.00E+00	1.28E-08	1.88E-11	3.99E-11	2.23E-08	3.86E-08	0.00E+00
153	3860.	5.99E-09	4.86E-11	2.51E-10	0.00E+00	1.28E-08	3.36E-11	3.99E-11	2.25E-08	4.16E-08	0.00E+00
154	3073.	1.69E-09	1.37E-11	7.07E-11	0.00E+00	1.28E-08	9.47E-12	3.99E-11	2.21E-08	3.68E-08	0.00E+00
155	3073.	2.87E-09	2.33E-11	1.20E-10	0.00E+00	1.28E-08	1.61E-11	3.99E-11	2.22E-08	3.81E-08	0.00E+00
156	3073.	2.37E-09	1.92E-11	9.94E-11	0.00E+00	1.28E-08	1.33E-11	3.99E-11	2.22E-08	3.75E-08	0.00E+00
157	3073.	2.88E-09	2.33E-11	1.20E-10	0.00E+00	1.28E-08	1.61E-11	3.99E-11	2.22E-08	3.81E-08	0.00E+00
158	3073.	3.07E-09	2.50E-11	1.29E-10	0.00E+00	1.28E-08	1.73E-11	3.99E-11	2.22E-08	3.83E-08	0.00E+00
159	3073.	2.91E-09	2.37E-11	1.22E-10	0.00E+00	1.28E-08	1.64E-11	3.99E-11	2.22E-08	3.81E-08	0.00E+00
160	3073.	1.77E-09	1.43E-11	7.39E-11	0.00E+00	1.28E-08	9.90E-12	3.99E-11	2.21E-08	3.68E-08	0.00E+00
161	2808.	9.42E-10	7.66E-12	3.96E-11	0.00E+00	1.28E-08	5.30E-12	3.99E-11	2.21E-08	3.59E-08	0.00E+00
162	2808.	1.21E-09	9.79E-12	5.06E-11	0.00E+00	1.28E-08	6.77E-12	3.99E-11	2.21E-08	3.62E-08	0.00E+00
163	2808.	1.64E-09	1.33E-11	6.88E-11	0.00E+00	1.28E-08	9.21E-12	3.99E-11	2.21E-08	3.67E-08	0.00E+00
164	2808.	8.69E-10	7.04E-12	3.64E-11	0.00E+00	1.28E-08	4.87E-12	3.99E-11	2.21E-08	3.58E-08	0.00E+00
165	2808.	1.15E-09	9.31E-12	4.81E-11	0.00E+00	1.28E-08	6.44E-12	3.99E-11	2.21E-08	3.61E-08	0.00E+00
166	4574.	5.68E-10	4.61E-12	2.38E-11	0.00E+00	1.28E-08	3.19E-12	3.99E-11	2.20E-08	3.55E-08	0.00E+00
167	4574.	7.26E-10	5.89E-12	3.05E-11	0.00E+00	1.28E-08	4.08E-12	3.99E-11	2.20E-08	3.57E-08	0.00E+00
168	4574.	4.92E-10	3.99E-12	2.06E-11	0.00E+00	1.28E-08	2.76E-12	3.99E-11	2.20E-08	3.54E-08	0.00E+00
169	4574.	6.50E-10	5.28E-12	2.73E-11	0.00E+00	1.28E-08	3.65E-12	3.99E-11	2.20E-08	3.56E-08	0.00E+00

89/11/29
15:43:49

upperdhs.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:42:00 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
170	4574.	5.68E-10	4.62E-12	2.39E-11	0.00E+00	1.28E-08	3.20E-12	3.99E-11	2.20E-08	3.55E-08	0.00E+00
171	0.	1.15E-08	9.31E-11	4.81E-10	0.00E+00	1.28E-08	6.44E-11	3.99E-11	2.29E-08	4.79E-08	0.00E+00
172	0.	1.15E-08	9.28E-11	4.80E-10	0.00E+00	1.28E-08	6.42E-11	3.99E-11	2.29E-08	4.79E-08	0.00E+00
173	0.	1.05E-08	8.49E-11	4.39E-10	0.00E+00	1.28E-08	5.88E-11	3.99E-11	2.28E-08	4.68E-08	0.00E+00
174	0.	7.54E-09	6.10E-11	3.15E-10	0.00E+00	1.28E-08	4.22E-11	3.99E-11	2.26E-08	4.34E-08	0.00E+00
175	0.	7.87E-09	6.37E-11	3.29E-10	0.00E+00	1.28E-08	4.41E-11	3.99E-11	2.26E-08	4.38E-08	0.00E+00
176	0.	6.05E-09	4.92E-11	2.54E-10	0.00E+00	1.28E-08	3.40E-11	3.99E-11	2.25E-08	4.17E-08	0.00E+00
177	0.	5.62E-09	4.55E-11	2.35E-10	0.00E+00	1.28E-08	3.15E-11	3.99E-11	2.24E-08	4.12E-08	0.00E+00
178	0.	1.77E-08	1.44E-10	7.46E-10	0.00E+00	1.28E-08	9.98E-11	3.99E-11	2.34E-08	5.50E-08	0.00E+00
179	0.	1.34E-08	1.09E-10	5.63E-10	0.00E+00	1.28E-08	7.53E-11	3.99E-11	2.31E-08	5.01E-08	0.00E+00
180	0.	1.33E-08	1.08E-10	5.59E-10	0.00E+00	1.28E-08	7.48E-11	3.99E-11	2.31E-08	5.00E-08	0.00E+00
181	0.	1.18E-08	9.53E-11	4.93E-10	0.00E+00	1.28E-08	6.60E-11	3.99E-11	2.29E-08	4.82E-08	0.00E+00
182	0.	2.21E-08	1.80E-10	9.30E-10	0.00E+00	1.28E-08	1.25E-10	3.99E-11	2.38E-08	6.00E-08	0.00E+00
183	0.	3.10E-08	2.50E-10	1.29E-09	0.00E+00	1.28E-08	1.73E-10	3.99E-11	2.45E-08	7.01E-08	0.00E+00
184	0.	3.80E-08	3.08E-10	1.59E-09	0.00E+00	1.28E-08	2.13E-10	3.99E-11	2.51E-08	7.80E-08	0.00E+00
185	0.	4.44E-08	3.60E-10	1.86E-09	0.00E+00	1.28E-08	2.49E-10	3.99E-11	2.56E-08	8.53E-08	0.00E+00
186	0.	4.44E-08	3.61E-10	1.87E-09	0.00E+00	1.28E-08	2.50E-10	3.99E-11	2.56E-08	8.53E-08	0.00E+00
187	0.	1.53E-07	1.23E-09	6.37E-09	0.00E+00	1.28E-08	8.53E-10	3.99E-11	3.44E-08	2.08E-07	0.00E+00
188	0.	1.52E-07	1.23E-09	6.37E-09	0.00E+00	1.28E-08	8.53E-10	3.99E-11	3.44E-08	2.08E-07	0.00E+00
189	0.	1.15E-07	9.28E-10	4.80E-09	0.00E+00	1.28E-08	6.42E-10	3.99E-11	3.13E-08	1.65E-07	0.00E+00
190	0.	9.27E-08	7.51E-10	3.88E-09	0.00E+00	1.28E-08	5.20E-10	3.99E-11	2.95E-08	1.40E-07	0.00E+00
191	0.	7.99E-08	6.49E-10	3.35E-09	0.00E+00	1.28E-08	4.49E-10	3.99E-11	2.85E-08	1.26E-07	0.00E+00
192	0.	1.51E-07	1.23E-09	6.35E-09	0.00E+00	1.28E-08	8.50E-10	3.99E-11	3.43E-08	2.07E-07	0.00E+00
193	0.	1.51E-07	1.22E-09	6.31E-09	0.00E+00	1.28E-08	8.46E-10	3.99E-11	3.43E-08	2.06E-07	0.00E+00
194	0.	9.91E-08	8.04E-10	4.15E-09	0.00E+00	1.28E-08	5.56E-10	3.99E-11	3.01E-08	1.48E-07	0.00E+00
195	0.	8.02E-08	6.50E-10	3.36E-09	0.00E+00	1.28E-08	4.50E-10	3.99E-11	2.85E-08	1.26E-07	0.00E+00
196	0.	6.60E-08	5.34E-10	2.76E-09	0.00E+00	1.28E-08	3.69E-10	3.99E-11	2.74E-08	1.10E-07	0.00E+00
197	0.	1.19E-07	9.62E-10	4.97E-09	0.00E+00	1.28E-08	6.66E-10	3.99E-11	3.17E-08	1.70E-07	0.00E+00
198	0.	1.06E-07	8.58E-10	4.44E-09	0.00E+00	1.28E-08	5.94E-10	3.99E-11	3.06E-08	1.55E-07	0.00E+00
199	0.	8.57E-08	6.97E-10	3.60E-09	0.00E+00	1.28E-08	4.82E-10	3.99E-11	2.90E-08	1.32E-07	0.00E+00
200	0.	6.78E-08	5.50E-10	2.84E-09	0.00E+00	1.28E-08	3.81E-10	3.99E-11	2.75E-08	1.12E-07	0.00E+00
201	0.	1.38E-08	1.12E-10	5.77E-10	0.00E+00	1.28E-08	7.72E-11	3.99E-11	2.31E-08	5.05E-08	0.00E+00
202	0.	5.87E-08	4.76E-10	2.46E-09	0.00E+00	1.28E-08	3.29E-10	3.99E-11	2.68E-08	1.02E-07	0.00E+00
203	0.	8.88E-08	7.20E-10	3.72E-09	0.00E+00	1.28E-08	4.98E-10	3.99E-11	2.92E-08	1.36E-07	0.00E+00
204	0.	7.99E-08	6.50E-10	3.36E-09	0.00E+00	1.28E-08	4.50E-10	3.99E-11	2.85E-08	1.26E-07	0.00E+00
205	0.	6.57E-08	5.34E-10	2.76E-09	0.00E+00	1.28E-08	3.69E-10	3.99E-11	2.73E-08	1.10E-07	0.00E+00
										TOTAL BURDEN =	0.00E+00

**R-RAM® RESULTS
WORST-CASE SCENARIO
EPA POTENCY FACTORS**

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Wed Nov 29 16:06:45 1989

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lw ra:dez Job: upperepa1.out Date: Wed Nov 29 16:06:45 1989

lw ra:dez Job: upperepa1.out Date: Wed Nov 29 16:06:45 1989

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:06 VERSION: 42688

The Pathway Variables are:

** GENERAL **

Risk Threshold For Burden Calc.	1.000E-07
Body Weight (kg)	7.000E+01
Alternate Exposure Period (yrs)	3.000E+01

** RESPIRATION **

Respiration Rate (m ³ /day)	2.000E+01
Particle Correction	1.000E+00

** SOIL **

Mixing Depth (m)	1.500E-01
Soil Consumption, 70 Years (kg/day)	1.500E-03
Soil Consumption, Alt. Years (kg/day)	1.500E-03

** PLANT **

Rec. # Used as Farm (0=Rec. Specific)	0.000E+00
Interception Fraction (*)	5.400E-02
Elimination Constant (1/day)	3.870E-02
Days Exposed (day)	6.000E+01
Edible Crop Density (kg/m ²)	2.000E+00
Cleaning Efficiency (*)	8.000E-02
Plant Consumption (kg/day)	9.000E-02
Root Vegetable Consumption (kg/day)	6.000E-02

** FISH **

Rec. # Used as Water Body	1.950E+02
Rec. # Used as Runoff	1.950E+02
Water Surface Area (m ²)	3.200E+08
Water Flowrate (kg/day)	1.100E+10
Sediment Flowrate (kg/day)	0.000E+00
Deposition Period	1.000E+00
Fish Consumption (g/day)	0.000E+00

** DAIRY AND BEEF **

Rec. # Used as Dairy Pasture	1.200E+01
Rec. # Used as Dairy Feedlot	1.200E+01
Fraction of Dairy Feed From Grazing	1.000E+00
Bioconcentration Factor for Milk	7.000E+00
Rec. # Used as Beef Pasture	1.200E+01
REC. # Used as Beef Feedlot	1.200E+01
Fraction of Beef Feed from Grazing	1.000E+00
Bioconcentration Factor for Beef	7.000E+00
Cattle Inhalation Rate (m ³ /day)	1.580E+02
Fodder Exposure Period (days)	4.800E+01
Fodder Surface Area (m ² /day)	1.000E+00
Quantity of Fodder Exposed (kg)	3.600E+01
Water Surface Area (m ²)	8.550E+00
Water Residence Time (hr)	7.520E+00
Water Quantity in Water Tank (kg)	4.700E+03
Milk Production Rate (kg/day)	2.300E+00
Cattle Body Weight (kg)	2.400E+02

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:06 VERSION: 42688

Grass Interception (*)	5.700E-01
Grass Density (kg/m^2)	5.800E-01
Grass Consumption Rate (kg/day)	1.600E+01
Soil Consumption Rate (kg/day)	2.000E+00
Water Consumption Rate (kg/day)	1.500E+02
Fodder Consumption Rate (kg/day)	1.600E+01
Beef Consumption Rate (kg/day)	2.000E-03
Milk Consumption Rate (kg/day)	4.000E-03

** DERMAL **

Skin Surface Area (cm^2)	4.170E+03
Dust on Skin (mg/cm^2/day)	7.500E+00

** MOTHERS MILK **

Female Fat Content (kg)	2.100E+01
Infant Milk Consumption (ml/day)	8.500E+02
Infant Body Weight (kg)	8.500E+00

** DRINKING WATER **

Rec. # Used as Reservoir	6.400E+01
Reservoir Surface Area (m^2)	2.300E+04
Water Reservoir Outflow (kg/day)	2.600E+07
Drinking Water Consumption (kg/day)	2.000E+00

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:06 VERSION: 42688

THE POLLUTANT SPECIFIC DATA ARE:

SYMBOL	INGEST POT.	INHALE POT.	BIOCONC	ROOT	CLASS
BA	0.000E+00	0.000E+00	1.700E+00	1.04E-02	M
BENZ	2.900E-02	2.900E-02	5.000E+00	0.00E+00	A
BE	8.400E+00	8.400E+00	1.900E+01	7.79E-04	M
BEHP	1.400E-02	1.400E-02	3.800E+02	8.40E-02	A
BRCL2ME	1.300E-01	1.300E-01	0.000E+00	0.00E+00	A
CHBR3	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
BBPH	0.000E+00	0.000E+00	8.472E+03	2.10E-01	M
CCL4	1.300E-01	5.200E-02	1.900E+01	0.00E+00	A
CLBENZ	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
CHCL3	6.100E-03	8.100E-02	3.750E+00	0.00E+00	A
CD	0.000E+00	6.100E+00	8.100E+01	5.41E-02	M
CR	0.000E+00	4.100E+01	1.600E+01	1.15E-03	M
CU	0.000E+00	0.000E+00	2.000E+02	6.29E-02	M
DIETHPH	0.000E+00	0.000E+00	0.000E+00	6.00E-02	A
MDCBENZ	0.000E+00	0.000E+00	5.600E+01	0.00E+00	A
ODCBENZ	0.000E+00	0.000E+00	5.600E+01	0.00E+00	A
PDCBENZ	2.400E-02	2.400E-02	5.600E+01	0.00E+00	A
ME2PHEN	0.000E+00	0.000E+00	0.000E+00	6.40E-02	A
DIOXANE	1.100E-02	1.100E-02	0.000E+00	0.00E+00	A
EDC	9.100E-02	9.100E-02	0.000E+00	0.00E+00	A
ETHGLYC	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
HEXBENZ	1.700E+00	1.700E+00	8.690E+03	7.00E-02	A
PB	0.000E+00	0.000E+00	4.900E+01	3.88E-03	M
HG	0.000E+00	0.000E+00	5.500E+03	8.10E-02	M
CH2BR2	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
CH2CL2	7.500E-03	1.600E-03	5.000E+00	0.00E+00	A
NAPHTH	0.000E+00	0.000E+00	8.000E+01	7.20E-02	A
NI	0.000E+00	1.700E+00	4.700E+01	1.32E-02	M
NO2BEN	0.000E+00	0.000E+00	0.000E+00	9.00E-01	A
NO2PHEN	0.000E+00	0.000E+00	0.000E+00	2.50E-01	A
PFORMAL	4.600E-02	4.600E-02	0.000E+00	0.00E+00	A
PHENOL	0.000E+00	0.000E+00	1.100E+00	7.10E-01	M
AG	0.000E+00	0.000E+00	3.080E+03	3.78E-02	M
TCDD	1.560E+05	1.560E+05	5.000E+03	1.00E-02	M
PCE	5.100E-02	3.330E-03	3.100E+01	0.00E+00	A
1122PCA	2.000E-01	2.000E-01	4.200E+01	0.00E+00	A
TCE	1.100E-02	1.700E-02	1.060E+01	0.00E+00	A
CL3BENZ	0.000E+00	0.000E+00	0.000E+00	5.60E-02	A

SYMBOL - Pollutant name
 POTENCY - Pollutant ingestion potency slope
 INHALE POT. - Pollutant inhalation potency slope
 BIOCONC - Bioconcentration factor for fish
 ROOT - Root uptake factor
 CLASS - 'A' Area weighted deposition flux
 'M' Mass weighted deposition flux

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:06 VERSION: 42688

THE ELIMINATION RATE DATA ARE:

SYMBOL	SOIL	ANIMAL	MOTHERS MILK
BA	1.000E+00	1.000E-01	1.000E+00
BENZ	1.000E+00	1.000E-01	1.000E+00
BE	1.000E+00	1.000E-01	1.000E+00
BEHP	1.820E+01	7.500E-01	7.500E-01
BRCL2ME	1.000E+00	1.000E-01	1.000E+00
CHBR3	1.000E+00	1.000E-01	1.000E+00
BBPH	1.820E+01	7.500E-01	7.500E-01
CCL4	1.000E+00	1.000E-01	1.000E+00
CLBENZ	1.000E+00	3.300E-02	3.300E-02
CHCL3	1.000E+00	1.000E-01	1.000E+00
CD	1.000E+00	1.000E-01	1.000E+00
CR	1.000E+00	1.000E-01	1.000E+00
CU	1.000E+00	1.000E-01	1.000E+00
DIETHPH	1.820E+01	7.500E-01	7.500E-01
MDCBENZ	1.000E+00	7.000E-02	7.000E-02
ODCBENZ	1.000E+00	7.000E-02	7.000E-02
PDCBENZ	1.200E-01	7.000E-02	7.000E-02
ME2PHEN	1.000E+00	1.000E-01	7.000E-01
DIOXANE	1.000E+00	1.000E-01	1.000E+00
EDC	1.000E+00	1.000E-01	1.000E+00
ETHGLYC	1.000E+00	1.000E-01	1.000E+00
HEXBENZ	1.200E-01	1.400E-02	6.300E-04
PB	1.000E+00	1.000E-01	1.000E+00
HG	1.000E+00	1.000E-01	1.000E+00
CH2BR2	1.000E+00	1.000E-01	1.000E+00
CH2CL2	1.000E+00	1.000E-01	1.000E+00
NAPHTH	2.310E+02	9.900E-02	9.900E-02
NI	1.000E+00	1.000E-01	1.000E+00
NO2BEN	1.000E+00	2.300E-01	2.300E-01
NO2PHEN	1.000E+00	1.400E-01	1.400E-01
PFORMAL	1.000E+00	1.000E-01	1.000E+00
PHENOL	6.930E+01	1.400E-01	1.400E-01
AG	1.000E+00	1.000E-01	1.000E+00
TCDD	5.780E-02	1.060E-01	4.500E-04
PCE	1.000E+00	1.000E-01	1.000E+00
1122PCA	1.000E+00	1.000E-01	1.000E+00
TCE	1.000E+00	1.000E-01	1.000E+00
CL3BENZ	1.200E-01	3.300E-02	3.300E-02

SYMBOL - Pollutant name
 SOIL - Elimination constant for soil
 ANIMAL - Elimination constant for cattle
 MILK - Elimination constant for mothers milk

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:06 VERSION: 42688

THE POPULATIONS OF THE RECEPTORS ARE:

Receptor	Population			
1	0.	555200	4200600	5
2	0.	555300	4200600	5
3	0.	555400	4200600	10
4	0.	555500	4200600	10
5	0.	555600	4200600	15
6	0.	555700	4200600	15
7	0.	555800	4200600	20
8	0.	555900	4200600	20
9	0.	556000	4200600	25
10	0.	556100	4200600	25
11	0.	555200	4200500	5
12	0.	555300	4200500	5
13	0.	555400	4200500	10
14	0.	555500	4200500	10
15	0.	555600	4200500	15
16	0.	555700	4200500	15
17	0.	555800	4200500	20
18	0.	555900	4200500	25
19	0.	556000	4200500	25
20	0.	556100	4200500	25
21	0.	555200	4200400	5
22	0.	555300	4200400	5
23	0.	555400	4200400	10
24	0.	555500	4200400	10
25	0.	555600	4200400	15
26	0.	555700	4200400	15
27	0.	555800	4200400	20
28	0.	555900	4200400	20
29	0.	556000	4200400	25
30	0.	556100	4200400	25
31	0.	555200	4200300	5
32	0.	555300	4200300	5
33	0.	555400	4200300	5
34	0.	555500	4200300	10
35	0.	555600	4200300	10
36	0.	555700	4200300	15
37	0.	555800	4200300	20
38	0.	555900	4200300	20
39	0.	556000	4200300	25
40	0.	556100	4200300	25
41	0.	555200	4200200	5
42	0.	555300	4200200	5
43	0.	555400	4200200	5
44	0.	555500	4200200	10
45	0.	555600	4200200	15
46	0.	555700	4200200	15

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:06 VERSION: 42688

Receptor	Population			
47	0.	555800	4200200	20
48	0.	555900	4200200	20
49	0.	556000	4200200	20
50	0.	556100	4200200	25
51	0.	555200	4200100	5
52	0.	555300	4200100	5
53	0.	555400	4200100	10
54	0.	555500	4200100	15
55	0.	555600	4200100	15
56	0.	555700	4200100	15
57	0.	555800	4200100	20
58	0.	555900	4200100	20
59	0.	556000	4200100	20
60	0.	556100	4200100	25
61	0.	555200	4200000	5
62	0.	555300	4200000	10
63	0.	555400	4200000	15
64	0.	555500	4200000	15
65	0.	555600	4200000	15
66	0.	555700	4200000	15
67	0.	555800	4200000	20
68	0.	555900	4200000	20
69	0.	556000	4200000	20
70	0.	556100	4200000	25
71	0.	555200	4199900	10
72	0.	555300	4199900	10
73	0.	555400	4199900	15
74	0.	555500	4199900	15
75	0.	555600	4199900	15
76	0.	555700	4199900	20
77	0.	555800	4199900	20
78	0.	555900	4199900	20
79	0.	556000	4199900	20
80	0.	556100	4199900	25
81	0.	555200	4199800	10
82	0.	555300	4199800	10
83	0.	555400	4199800	15
84	0.	555500	4199800	15
85	0.	556250	4199100	25
86	0.	555700	4199800	20
87	0.	555800	4199800	20
88	0.	555900	4199800	20
89	0.	556000	4199800	20
90	0.	556100	4199800	25
91	0.	555400	4199100	15
92	0.	555500	4199200	15
93	0.	555600	4199300	15
94	0.	555650	4199400	15
95	0.	556000	4199200	25
96	0.	555700	4199700	15
97	0.	555800	4199700	15

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:07 VERSION: 42688

Receptor	Population				
98	0.	555900	4199700	20	
99	0.	556000	4199700	20	
100	0.	556100	4199700	25	
101	0.	553500	4201500	0	
102	0.	554000	4201500	0	
103	0.	554500	4201500	0	
104	0.	555000	4201500	10	
105	0.	555500	4201500	15	
106	0.	556000	4201500	20	
107	0.	556500	4201500	30	
108	0.	557000	4201500	40	3680
109	0.	557500	4201500	50	3680
110	0.	553500	4201000	0	
111	0.	554000	4201000	0	
112	0.	554500	4201000	0	
113	0.	555000	4201000	10	
114	0.	555500	4201000	10	3650.02
115	0.	556000	4201000	20	3650.02
116	0.	556500	4201000	30	
117	0.	557000	4201000	40	3680
118	0.	557500	4201000	55	
119	0.	553500	4200500	0	
120	0.	554000	4200500	0	
121	0.	554500	4200500	0	
122	0.	555000	4200500	0	
123	0.	555500	4200500	10	3650.02
124	0.	556000	4200500	25	3650.02
125	0.	556500	4200500	40	3680
126	0.	557000	4200500	50	3680
127	0.	557500	4200500	65	3720
128	0.	553500	4200000	0	
129	436.				
130	436.				
131	436.				
132	436.				
133	436.				
134	436.				
135	436.				
136	436.				
137	436.				
138	1090.				
139	1090.				
140	1090.				
141	1090.				
142	1090.				
143	1090.				
144	1090.				
145	1090.				
146	5378.				
147	5378.				
148	3578.				

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upperepa1.out

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:07 VERSION: 42688

Receptor	Population
149	3860.
150	3860.
151	3860.
152	3860.
153	3860.
154	3073.
155	3073.
156	3073.
157	3073.
158	3073.
159	3073.
160	3073.
161	2808.
162	2808.
163	2808.
164	2808.
165	2808.
166	4574.
167	4574.
168	4574.
169	4574.
170	4574.
171	0.
172	0.
173	0.
174	0.
175	0.
176	0.
177	0.
178	0.
179	0.
180	0.
181	0.
182	0.
183	0.
184	0.
185	0.
186	0.
187	0.
188	0.
189	0.
190	0.
191	0.
192	0.
193	0.
194	0.
195	0.
196	0.
197	0.
198	0.
199	0.

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:07 VERSION: 42688

Receptor	Population
200	0.
201	0.
202	0.
203	0.
204	0.
205	0.

Receptor - Receptor name
Population - Number of people living at receptor

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:07 VERSION: 42688

Unit concentrations and deposition fluxes are:

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
1	1	1.610E+00	3.220E-02	3.220E-02
	2	6.630E-01	1.330E-02	1.330E-02
	3	7.750E-01	1.550E-02	1.550E-02
	4	1.090E+00	2.180E-02	2.180E-02
	5	9.960E-01	1.990E-02	1.990E-02
	6	7.400E-01	1.480E-02	1.480E-02
	7	5.500E-01	1.100E-02	1.100E-02
	8	4.280E-01	8.560E-03	8.560E-03
	9	3.420E-01	6.850E-03	6.850E-03
	10	8.400E-02	1.680E-03	1.680E-03
	11	3.990E+00	7.980E-02	7.980E-02
	12	3.970E+00	7.940E-02	7.940E-02
	13	2.410E+00	4.830E-02	4.830E-02
	14	1.830E+00	3.660E-02	3.660E-02
	15	1.180E+00	2.370E-02	2.370E-02
	16	7.810E-01	1.560E-02	1.560E-02
	17	5.480E-01	1.100E-02	1.100E-02
	18	4.060E-01	8.120E-03	8.120E-03
	19	5.730E-02	1.150E-03	1.150E-03
	20	1.450E-01	2.900E-03	2.900E-03
	21	2.350E+00	4.700E-02	4.700E-02
	22	2.020E+00	4.040E-02	4.040E-02
	23	1.630E+00	3.250E-02	3.250E-02
	24	1.400E+00	2.800E-02	2.800E-02
	25	8.720E-01	1.740E-02	1.740E-02
	26	6.450E-01	1.290E-02	1.290E-02
	27	4.820E-01	9.640E-03	9.640E-03
	28	5.140E-02	1.030E-03	1.030E-03
	29	9.030E-02	1.810E-03	1.810E-03
	30	3.520E-01	7.030E-03	7.030E-03
	31	1.450E+00	2.890E-02	2.890E-02
	32	1.670E+00	3.340E-02	3.340E-02
	33	1.500E+00	3.010E-02	3.010E-02
	34	1.030E+00	2.050E-02	2.050E-02
	35	7.080E-01	1.420E-02	1.420E-02
	36	5.200E-01	1.040E-02	1.040E-02
	37	5.560E-02	1.110E-03	1.110E-03
	38	9.430E-02	1.890E-03	1.890E-03
	39	1.640E-01	3.290E-03	3.290E-03
	40	6.150E-01	1.230E-02	1.230E-02
	41	1.300E+00	2.610E-02	2.610E-02
	42	1.580E+00	3.160E-02	3.160E-02
	43	1.030E+00	2.070E-02	2.070E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:08 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
44		7.830E-01	1.570E-02	1.570E-02
45		5.790E-01	1.160E-02	1.160E-02
46		5.620E-02	1.120E-03	1.120E-03
47		9.860E-02	1.970E-03	1.970E-03
48		1.470E-01	2.930E-03	2.930E-03
49		3.850E-01	7.700E-03	7.700E-03
50		9.090E-01	1.820E-02	1.820E-02
51		1.450E+00	2.910E-02	2.910E-02
52		9.470E-01	1.890E-02	1.890E-02
53		7.850E-01	1.570E-02	1.570E-02
54		6.070E-01	1.210E-02	1.210E-02
55		6.310E-02	1.260E-03	1.260E-03
56		9.240E-02	1.850E-03	1.850E-03
57		1.370E-01	2.730E-03	2.730E-03
58		2.550E-01	5.110E-03	5.110E-03
59		5.590E-01	1.120E-02	1.120E-02
60		9.640E-01	1.930E-02	1.930E-02
61		7.300E-01	1.460E-02	1.460E-02
62		6.710E-01	1.340E-02	1.340E-02
63		5.960E-01	1.190E-02	1.190E-02
64		4.380E-01	8.760E-03	8.760E-03
65		1.030E-01	2.060E-03	2.060E-03
66		1.080E-01	2.150E-03	2.150E-03
67		1.190E-01	2.380E-03	2.380E-03
68		1.270E-01	2.550E-03	2.550E-03
69		1.300E-01	2.590E-03	2.590E-03
70		1.270E-01	2.540E-03	2.540E-03
71		1.220E-01	2.440E-03	2.440E-03
72		1.130E-01	2.260E-03	2.260E-03
73		1.060E-01	2.120E-03	2.120E-03
74		8.240E-02	1.650E-03	1.650E-03
75		6.290E-02	1.260E-03	1.260E-03
76		6.850E-02	1.370E-03	1.370E-03
77		7.540E-02	1.510E-03	1.510E-03
78		9.100E-02	1.820E-03	1.820E-03
79		1.110E-01	2.220E-03	2.220E-03
80		1.270E-01	2.550E-03	2.550E-03
81		1.400E-01	2.800E-03	2.800E-03
82		1.540E-01	3.080E-03	3.080E-03
83		1.610E-01	3.220E-03	3.220E-03
84		1.540E-01	3.080E-03	3.080E-03
85		1.560E-01	3.120E-03	3.120E-03
86		1.460E-01	2.910E-03	2.910E-03
87		1.480E-01	2.950E-03	2.950E-03
88		1.510E-01	3.020E-03	3.020E-03
89		1.600E-01	3.200E-03	3.200E-03
90		1.590E-01	3.190E-03	3.190E-03
91		6.490E-02	1.300E-03	1.300E-03
92		7.770E-02	1.550E-03	1.550E-03

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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upperepal.out

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:08 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
93		1.100E-01	2.190E-03	2.190E-03
94		1.300E-01	2.600E-03	2.600E-03
95		1.570E-01	3.140E-03	3.140E-03
96		1.630E-01	3.270E-03	3.270E-03
97		1.630E-01	3.270E-03	3.270E-03
98		1.340E-01	2.670E-03	2.670E-03
99		1.260E-01	2.520E-03	2.520E-03
100		1.170E-01	2.330E-03	2.330E-03
101		1.380E-01	2.770E-03	2.770E-03
102		1.540E-01	3.090E-03	3.090E-03
103		1.840E-01	3.670E-03	3.670E-03
104		2.220E-01	4.450E-03	4.450E-03
105		2.760E-01	5.510E-03	5.510E-03
106		3.310E-01	6.620E-03	6.620E-03
107		4.900E-01	9.790E-03	9.790E-03
108		8.060E-01	1.610E-02	1.610E-02
109		9.140E-01	1.830E-02	1.830E-02
110		7.330E-01	1.470E-02	1.470E-02
111		4.660E-01	9.310E-03	9.310E-03
112		5.300E-01	1.060E-02	1.060E-02
113		4.300E-01	8.590E-03	8.590E-03
114		3.450E-01	6.900E-03	6.900E-03
115		1.480E-01	2.950E-03	2.950E-03
116		1.580E-01	3.170E-03	3.170E-03
117		1.790E-01	3.570E-03	3.570E-03
118		2.110E-01	4.210E-03	4.210E-03
119		2.850E-01	5.690E-03	5.690E-03
120		3.900E-01	7.810E-03	7.810E-03
121		4.300E-01	8.590E-03	8.590E-03
122		4.610E-01	9.220E-03	9.220E-03
123		5.150E-01	1.030E-02	1.030E-02
124		6.670E-01	1.330E-02	1.330E-02
125		4.670E-01	9.340E-03	9.340E-03
126		3.120E-01	6.230E-03	6.230E-03
127		2.040E-01	4.070E-03	4.070E-03
128		1.400E-01	2.810E-03	2.810E-03
129		1.960E-02	3.920E-04	3.920E-04
130		2.290E-02	4.570E-04	4.570E-04
131		5.460E-02	1.090E-03	1.090E-03
132		2.260E-02	4.510E-04	4.510E-04
133		8.240E-02	1.650E-03	1.650E-03
134		1.040E+00	2.080E-02	2.080E-02
135		3.770E-02	7.540E-04	7.540E-04
136		4.480E-02	8.950E-04	8.950E-04
137		2.400E-02	4.810E-04	4.810E-04
138		7.190E-02	1.440E-03	1.440E-03
139		1.790E-01	3.590E-03	3.590E-03
140		4.090E-02	8.170E-04	8.170E-04
141		5.500E-02	1.100E-03	1.100E-03

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:08 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	142	3.970E-02	7.930E-04	7.930E-04
	143	1.520E-01	3.040E-03	3.040E-03
	144	6.110E-02	1.220E-03	1.220E-03
	145	3.740E-02	7.480E-04	7.480E-04
	146	2.210E-02	4.430E-04	4.430E-04
	147	2.080E-02	4.150E-04	4.150E-04
	148	2.970E-02	5.940E-04	5.940E-04
	149	2.660E-02	5.320E-04	5.320E-04
	150	4.250E-02	8.500E-04	8.500E-04
	151	3.250E-02	6.500E-04	6.500E-04
	152	1.100E-01	2.200E-03	2.200E-03
	153	1.970E-01	3.940E-03	3.940E-03
	154	5.560E-02	1.110E-03	1.110E-03
	155	9.440E-02	1.890E-03	1.890E-03
	156	7.800E-02	1.560E-03	1.560E-03
	157	9.470E-02	1.890E-03	1.890E-03
	158	1.010E-01	2.030E-03	2.030E-03
	159	9.580E-02	1.920E-03	1.920E-03
	160	5.810E-02	1.160E-03	1.160E-03
	161	3.100E-02	6.210E-04	6.210E-04
	162	3.970E-02	7.940E-04	7.940E-04
	163	5.390E-02	1.080E-03	1.080E-03
	164	2.860E-02	5.710E-04	5.710E-04
	165	3.770E-02	7.550E-04	7.550E-04
	166	1.870E-02	3.740E-04	3.740E-04
	167	2.390E-02	4.780E-04	4.780E-04
	168	1.620E-02	3.240E-04	3.240E-04
	169	2.140E-02	4.280E-04	4.280E-04
	170	1.870E-02	3.750E-04	3.750E-04
	171	3.770E-01	7.550E-03	7.550E-03
	172	3.770E-01	7.530E-03	7.530E-03
	173	3.450E-01	6.890E-03	6.890E-03
	174	2.480E-01	4.950E-03	4.950E-03
	175	2.590E-01	5.170E-03	5.170E-03
	176	1.990E-01	3.990E-03	3.990E-03
	177	1.850E-01	3.690E-03	3.690E-03
	178	5.830E-01	1.170E-02	1.170E-02
	179	4.410E-01	8.830E-03	8.830E-03
	180	4.390E-01	8.770E-03	8.770E-03
	181	3.870E-01	7.730E-03	7.730E-03
	182	7.280E-01	1.460E-02	1.460E-02
	183	1.020E+00	2.030E-02	2.030E-02
	184	1.250E+00	2.500E-02	2.500E-02
	185	1.460E+00	2.920E-02	2.920E-02
	186	1.460E+00	2.930E-02	2.930E-02
	187	5.020E+00	1.000E-01	1.000E-01
	188	5.000E+00	1.000E-01	1.000E-01
	189	3.770E+00	7.530E-02	7.530E-02
	190	3.050E+00	6.090E-02	6.090E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:08 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	191	2.630E+00	5.260E-02	5.260E-02
	192	4.980E+00	9.960E-02	9.960E-02
	193	4.960E+00	9.910E-02	9.910E-02
	194	3.260E+00	6.520E-02	6.520E-02
	195	2.640E+00	5.270E-02	5.270E-02
	196	2.170E+00	4.330E-02	4.330E-02
	197	3.900E+00	7.800E-02	7.800E-02
	198	3.480E+00	6.960E-02	6.960E-02
	199	2.820E+00	5.650E-02	5.650E-02
	200	2.230E+00	4.460E-02	4.460E-02
	201	4.530E-01	9.050E-03	9.050E-03
	202	1.930E+00	3.860E-02	3.860E-02
	203	2.920E+00	5.840E-02	5.840E-02
	204	2.630E+00	5.270E-02	5.270E-02
	205	2.160E+00	4.330E-02	4.330E-02

2

1	1.620E+01	3.240E-01	3.240E-01
2	2.180E+01	4.360E-01	4.360E-01
3	4.500E+00	9.000E-02	9.000E-02
4	2.730E+00	5.460E-02	5.460E-02
5	1.950E+00	3.900E-02	3.900E-02
6	1.350E+00	2.710E-02	2.710E-02
7	9.870E-01	1.970E-02	1.970E-02
8	7.640E-01	1.530E-02	1.530E-02
9	6.080E-01	1.220E-02	1.220E-02
10	8.820E+01	1.760E+00	1.760E+00
11	1.330E+02	2.660E+00	2.660E+00
12	2.430E+01	4.850E-01	4.850E-01
13	7.580E+00	1.520E-01	1.520E-01
14	3.660E+00	7.310E-02	7.310E-02
15	2.090E+00	4.170E-02	4.170E-02
16	1.330E+00	2.670E-02	2.670E-02
17	9.220E-01	1.840E-02	1.840E-02
18	6.720E-01	1.340E-02	1.340E-02
19	8.570E+00	1.710E-01	1.710E-01
20	9.080E+00	1.820E-01	1.820E-01
21	1.810E+01	3.610E-01	3.610E-01
22	9.940E+00	1.990E-01	1.990E-01
23	5.080E+00	1.020E-01	1.020E-01
24	2.580E+00	5.170E-02	5.170E-02
25	1.610E+00	3.210E-02	3.210E-02
26	1.150E+00	2.300E-02	2.300E-02
27	8.530E-01	1.710E-02	1.710E-02
28	3.370E+00	6.740E-02	6.740E-02
29	3.830E+00	7.660E-02	7.660E-02
30	5.140E+00	1.030E-01	1.030E-01
31	7.320E+00	1.460E-01	1.460E-01
32	6.000E+00	1.200E-01	1.200E-01
33	3.220E+00	6.440E-02	6.440E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M^3/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M^2/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M^2/s/g/s

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upperepal.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:08 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	34	2.000E+00	4.000E-02	4.000E-02
	35	1.390E+00	2.790E-02	2.790E-02
	36	9.460E-01	1.890E-02	1.890E-02
	37	2.010E+00	4.010E-02	4.010E-02
	38	2.380E+00	4.760E-02	4.760E-02
	39	2.360E+00	4.720E-02	4.720E-02
	40	4.000E+00	8.010E-02	8.010E-02
	41	4.470E+00	8.930E-02	8.930E-02
	42	2.920E+00	5.840E-02	5.840E-02
	43	2.030E+00	4.070E-02	4.070E-02
	44	1.530E+00	3.060E-02	3.060E-02
	45	1.090E+00	2.180E-02	2.180E-02
	46	1.270E+00	2.550E-02	2.550E-02
	47	1.670E+00	3.340E-02	3.340E-02
	48	1.660E+00	3.310E-02	3.310E-02
	49	2.220E+00	4.430E-02	4.430E-02
	50	2.300E+00	4.590E-02	4.590E-02
	51	2.230E+00	4.460E-02	4.460E-02
	52	1.800E+00	3.610E-02	3.610E-02
	53	1.460E+00	2.920E-02	2.920E-02
	54	1.100E+00	2.190E-02	2.190E-02
	55	9.670E-01	1.930E-02	1.930E-02
	56	1.180E+00	2.370E-02	2.370E-02
	57	1.310E+00	2.620E-02	2.620E-02
	58	1.370E+00	2.730E-02	2.730E-02
	59	1.330E+00	2.650E-02	2.650E-02
	60	1.480E+00	2.950E-02	2.950E-02
	61	1.480E+00	2.960E-02	2.960E-02
	62	1.220E+00	2.440E-02	2.440E-02
	63	1.080E+00	2.160E-02	2.160E-02
	64	8.950E-01	1.790E-02	1.790E-02
	65	7.800E-01	1.560E-02	1.560E-02
	66	7.090E-01	1.420E-02	1.420E-02
	67	7.170E-01	1.430E-02	1.430E-02
	68	7.120E-01	1.420E-02	1.420E-02
	69	7.020E-01	1.400E-02	1.400E-02
	70	6.800E-01	1.360E-02	1.360E-02
	71	6.260E-01	1.250E-02	1.250E-02
	72	5.370E-01	1.070E-02	1.070E-02
	73	4.830E-01	9.660E-03	9.660E-03
	74	1.900E-01	3.800E-03	3.800E-03
	75	9.430E-01	1.890E-02	1.890E-02
	76	1.110E+00	2.220E-02	2.220E-02
	77	1.260E+00	2.510E-02	2.510E-02
	78	1.530E+00	3.060E-02	3.060E-02
	79	1.960E+00	3.920E-02	3.920E-02
	80	2.370E+00	4.740E-02	4.740E-02
	81	2.720E+00	5.440E-02	5.440E-02
	82	3.240E+00	6.490E-02	6.490E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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upperepal.out

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:09 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	83	3.840E+00	7.680E-02	7.680E-02
	84	3.900E+00	7.800E-02	7.800E-02
	85	4.100E+00	8.200E-02	8.200E-02
	86	3.360E+00	6.720E-02	6.720E-02
	87	3.000E+00	6.010E-02	6.010E-02
	88	2.890E+00	5.770E-02	5.770E-02
	89	2.370E+00	4.730E-02	4.730E-02
	90	1.790E+00	3.580E-02	3.580E-02
	91	6.990E-01	1.400E-02	1.400E-02
	92	8.440E-01	1.690E-02	1.690E-02
	93	1.240E+00	2.470E-02	2.470E-02
	94	1.570E+00	3.140E-02	3.140E-02
	95	2.050E+00	4.100E-02	4.100E-02
	96	2.390E+00	4.770E-02	4.770E-02
	97	2.540E+00	5.070E-02	5.070E-02
	98	1.830E+00	3.660E-02	3.660E-02
	99	1.670E+00	3.330E-02	3.330E-02
100		1.160E+00	2.310E-02	2.310E-02
101		9.590E-01	1.920E-02	1.920E-02
102		1.140E+00	2.280E-02	2.280E-02
103		1.430E+00	2.860E-02	2.860E-02
104		1.850E+00	3.710E-02	3.710E-02
105		2.430E+00	4.860E-02	4.860E-02
106		2.740E+00	5.470E-02	5.470E-02
107		3.650E+00	7.310E-02	7.310E-02
108		5.180E+00	1.040E-01	1.040E-01
109		5.820E+00	1.160E-01	1.160E-01
110		5.200E+00	1.040E-01	1.040E-01
111		2.150E+00	4.300E-02	4.300E-02
112		1.270E+00	2.540E-02	2.540E-02
113		9.030E-01	1.810E-02	1.810E-02
114		6.820E-01	1.360E-02	1.360E-02
115		8.010E-01	1.600E-02	1.600E-02
116		8.330E-01	1.670E-02	1.670E-02
117		1.020E+00	2.030E-02	2.030E-02
118		1.140E+00	2.280E-02	2.280E-02
119		1.240E+00	2.480E-02	2.480E-02
120		1.770E+00	3.550E-02	3.550E-02
121		1.820E+00	3.640E-02	3.640E-02
122		2.230E+00	4.460E-02	4.460E-02
123		1.990E+00	3.990E-02	3.990E-02
124		1.640E+00	3.290E-02	3.290E-02
125		1.120E+00	2.250E-02	2.250E-02
126		8.050E-01	1.610E-02	1.610E-02
127		4.600E-01	9.210E-03	9.210E-03
128		2.970E-01	5.940E-03	5.940E-03
129		4.820E-02	9.640E-04	9.640E-04
130		4.460E-02	8.920E-04	8.920E-04
131		1.400E-01	2.810E-03	2.810E-03

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:09 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	132	4.310E-02	8.620E-04	8.620E-04
	133	2.030E-01	4.060E-03	4.060E-03
	134	1.400E+00	2.790E-02	2.790E-02
	135	2.130E-01	4.250E-03	4.250E-03
	136	1.030E-01	2.060E-03	2.060E-03
	137	5.740E-02	1.150E-03	1.150E-03
	138	2.210E-01	4.420E-03	4.420E-03
	139	4.260E-01	8.530E-03	8.530E-03
	140	2.320E-01	4.630E-03	4.630E-03
	141	2.620E-01	5.240E-03	5.240E-03
	142	1.620E-01	3.240E-03	3.240E-03
	143	5.420E-01	1.080E-02	1.080E-02
	144	1.480E-01	2.960E-03	2.960E-03
	145	1.080E-01	2.160E-03	2.160E-03
	146	8.500E-02	1.700E-03	1.700E-03
	147	8.110E-02	1.620E-03	1.620E-03
	148	1.230E-01	2.460E-03	2.460E-03
	149	1.090E-01	2.170E-03	2.170E-03
	150	1.890E-01	3.790E-03	3.790E-03
	151	1.430E-01	2.870E-03	2.870E-03
	152	4.350E-01	8.700E-03	8.700E-03
	153	7.340E-01	1.470E-02	1.470E-02
	154	2.970E-01	5.950E-03	5.950E-03
	155	7.870E-01	1.570E-02	1.570E-02
	156	2.570E-01	5.140E-03	5.140E-03
	157	4.460E-01	8.910E-03	8.910E-03
	158	6.330E-01	1.270E-02	1.270E-02
	159	1.050E+00	2.090E-02	2.090E-02
	160	3.760E-01	7.520E-03	7.520E-03
	161	9.260E-02	1.850E-03	1.850E-03
	162	1.230E-01	2.460E-03	2.460E-03
	163	1.780E-01	3.570E-03	3.570E-03
	164	1.050E-01	2.090E-03	2.090E-03
	165	1.430E-01	2.860E-03	2.860E-03
	166	6.250E-02	1.250E-03	1.250E-03
	167	8.300E-02	1.660E-03	1.660E-03
	168	4.690E-02	9.390E-04	9.390E-04
	169	6.380E-02	1.280E-03	1.280E-03
	170	4.900E-02	9.810E-04	9.810E-04
	171	1.060E+00	2.120E-02	2.120E-02
	172	9.010E-01	1.800E-02	1.800E-02
	173	8.130E-01	1.630E-02	1.630E-02
	174	5.840E-01	1.170E-02	1.170E-02
	175	5.970E-01	1.190E-02	1.190E-02
	176	4.440E-01	8.880E-03	8.880E-03
	177	4.160E-01	8.310E-03	8.310E-03
	178	8.010E-01	1.600E-02	1.600E-02
	179	8.220E-01	1.640E-02	1.640E-02
	180	7.790E-01	1.560E-02	1.560E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:09 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
181		6.770E-01	1.350E-02	1.350E-02
182		1.490E+01	2.970E-01	2.970E-01
183		8.710E+00	1.740E-01	1.740E-01
184		7.040E+00	1.410E-01	1.410E-01
185		5.090E+00	1.020E-01	1.020E-01
186		4.190E+00	8.380E-02	8.380E-02
187		6.650E+01	1.330E+00	1.330E+00
188		3.030E+01	6.060E-01	6.060E-01
189		1.700E+01	3.400E-01	3.400E-01
190		1.040E+01	2.070E-01	2.070E-01
191		6.830E+00	1.370E-01	1.370E-01
192		8.060E+01	1.610E+00	1.610E+00
193		3.230E+01	6.470E-01	6.470E-01
194		1.410E+01	2.820E-01	2.820E-01
195		9.130E+00	1.830E-01	1.830E-01
196		4.340E+01	8.670E-01	8.670E-01
197		3.790E+01	7.580E-01	7.580E-01
198		2.320E+01	4.650E-01	4.650E-01
199		1.450E+01	2.900E-01	2.900E-01
200		9.510E+00	1.900E-01	1.900E-01
201		1.530E+01	3.070E-01	3.070E-01
202		2.250E+01	4.510E-01	4.510E-01
203		2.150E+01	4.290E-01	4.290E-01
204		1.570E+01	3.140E-01	3.140E-01
205		1.120E+01	2.250E-01	2.250E-01

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:09 VERSION: 42688

Emission rate of Pollutants from all Sources is:

Source	Pollutant	Emission Rate
1		
	BA	2.720E-09
	BENZ	7.320E-06
	BE	2.380E-08
	BEHP	1.520E-06
	BRCL2ME	1.070E-06
	CHBR3	3.620E-05
	BBPH	1.600E-07
	CCL4	9.500E-07
	CLBENZ	2.160E-06
	CHCL3	2.120E-06
	CD	1.140E-09
	CR	4.790E-07
	CU	1.250E-06
	DIETHPH	1.410E-06
	MDCBENZ	1.500E-07
	ODCBENZ	1.930E-07
	PDCBENZ	1.090E-07
	ME2PHEN	2.300E-06
	DIOXANE	3.940E-07
	EDC	7.740E-12
	ETHGLYC	4.410E-06
	HEXBENZ	2.600E-07
	PB	8.160E-09
	HG	2.740E-07
	CH2BR2	6.330E-06
	CH2CL2	3.160E-06
	NAPHTH	7.900E-06
	NI	7.140E-08
	NO2BEN	4.800E-06
	NO2PHEN	2.090E-05
	PFORMAL	2.520E-08
	PHENOL	2.120E-06
	AG	2.220E-07
	TCDD	9.800E-12
	PCE	1.120E-06
	1122PCA	8.930E-10
	TCE	2.300E-06
	CL3BENZ	2.600E-07
2		
	BA	0.000E+00
	BENZ	5.200E-08
	BE	0.000E+00
	BEHP	0.000E+00
	BRCL2ME	0.000E+00
	CHBR3	0.000E+00
	BBPH	0.000E+00

Source - Source Identification

Pollutant - Pollutant Identification

Emission rate - Emission rate of each pollutant in g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:09 VERSION: 42688

Source	Pollutant	Emission Rate
	CCL4	0.000E+00
	CLBENZ	0.000E+00
	CHCL3	1.180E-08
	CD	0.000E+00
	CR	0.000E+00
	CU	0.000E+00
	DIETHPH	0.000E+00
	MDCBENZ	0.000E+00
	ODCBENZ	0.000E+00
	PDCBENZ	0.000E+00
	ME2PHEN	0.000E+00
	DIOXANE	4.020E-07
	EDC	1.690E-11
	ETHGLYC	1.340E-08
	HEXBENZ	0.000E+00
	PB	0.000E+00
	HG	0.000E+00
	CH2BR2	0.000E+00
	CH2CL2	1.320E-08
	NAPHTH	4.780E-11
	NI	0.000E+00
	NO2BEN	0.000E+00
	NO2PHEN	0.000E+00
	PFORMAL	8.400E-10
	PHENOL	1.560E-10
	AG	0.000E+00
	TCDD	0.000E+00
	PCE	7.550E-10
	1122PCA	1.430E-10
	TCE	4.330E-09
	CL3BENZ	0.000E+00

Source - Source Identification

Pollutant - Pollutant Identification

Emission rate - Emission rate of each pollutant in g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:10 VERSION: 42688

The Gastrointestinal Factors are:

Symbol	Inhal	Soil	Plant	Fish	D&B	Dermal	Water	Milk	Tissue
BA	1.000	1.000	1.000	0.000	1.000	0.010	1.000	0.000	1.000
BENZ	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BE	1.000	0.010	0.010	0.000	0.000	0.010	1.000	0.000	0.010
BEHP	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
BRCL2ME	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHBR3	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BBPH	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
CCL4	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CLBENZ	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHCL3	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CD	1.000	1.000	0.060	0.000	0.000	0.010	1.000	0.000	1.000
CR	1.000	1.000	0.050	0.000	0.000	0.010	1.000	0.000	1.000
CU	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
DIETHPH	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
MDCBENZ	1.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000
ODCBENZ	1.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000
PDCBENZ	1.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000
ME2PHEN	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
DIOXANE	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EDC	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ETHGLYC	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HEXBENZ	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
PB	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
HG	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
CH2BR2	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CH2CL2	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NAPHTH	1.000	1.000	1.000	0.000	0.000	0.010	1.000	1.000	1.000
NI	1.000	0.100	0.100	0.000	0.000	0.010	1.000	0.000	0.100
NO2BEN	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
NO2PHEN	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
PFORMAL	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PHENOL	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
AG	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
TCDD	1.000	0.300	0.300	0.000	1.700	0.010	0.300	1.700	1.000
PCE	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1122PCA	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCE	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CL3BENZ	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000

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Symbol - Pollutant name
Inhal - Inhalation absorbtion efficiency
Soil - Soil ingestion GI factor
Plant - Plant ingestion GI factor
Fish - Fish consumption GI factor
D&B - Beef and dairy consumption GI factor
Dermal - Dermal uptake factor
Water - Water consumption GI factor
Milk - Mothers milk consumption GI factor
Tissue - GI factor for pollutants into plant tissue

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upperepal.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:10 VERSION: 42688

Acceptable Daily Intakes for all Pollutants are:

Pollutant	Inhalation ADI	Ingestion ADI
BA	1.000E-01	5.000E-02
BENZ	0.000E+00	0.000E+00
BE	0.000E+00	5.000E-03
BEHP	0.000E+00	2.000E-02
BRCL2ME	0.000E+00	2.000E-02
CHBR3	3.400E-03	2.000E-02
BBPH	2.000E-01	2.000E-01
CCL4	0.000E+00	7.000E-04
CLBENZ	5.000E-03	2.000E-02
CHCL3	0.000E+00	1.000E-02
CD	0.000E+00	3.000E-04
CR	0.000E+00	5.000E-03
CU	1.400E-04	8.600E-02
DIETHPH	3.400E-03	8.000E-01
MDCBENZ	4.000E-02	9.000E-02
ODCBENZ	4.000E-02	9.000E-02
PDCBENZ	2.000E-01	0.000E+00
ME2PHEN	6.000E-04	6.000E-04
DIOXANE	6.100E-02	0.000E+00
EDC	0.000E+00	0.000E+00
ETHGLYC	8.500E-02	2.000E+00
HEXBENZ	0.000E+00	0.000E+00
PB	4.300E-04	1.400E-03
HG	6.800E-05	3.000E-04
CH2BR2	2.500E-01	2.500E-01
CH2CL2	8.600E-01	6.000E-02
NAPHTH	3.400E-02	4.000E-01
NI	0.000E+00	0.000E+00
NO2BEN	6.000E-04	5.000E-04
NO2PHEN	6.500E-04	6.500E-04
PFORMAL	0.000E+00	0.000E+00
PHENOL	1.300E-02	6.000E-01
AG	6.800E-06	3.000E-03
TCDD	0.000E+00	0.000E+00
PCE	0.000E+00	1.000E-02
1122PCA	0.000E+00	0.000E+00
TCE	0.000E+00	0.000E+00
CL3BENZ	3.000E-03	2.000E-02

Pollutant - Pollutant name

Inhalation ADI - Acceptable daily intake for inhalation of pollutant

Ingestion ADI - Acceptable daily intake for ingestion of pollutant

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:13 VERSION: 42688

POLLUTANT	INHALATION		RECEPTOR NUMBER 12	
	70 YEARS		30.0 YEARS	
	DOSE	RISK	DOSE	RISK
BA	3.085E-12		3.085E-12	
BENZ	8.664E-09	2.513E-10	8.664E-09	1.077E-10
BE	2.700E-11	2.268E-10	2.700E-11	9.719E-11
BEHP	1.724E-09	2.414E-11	1.724E-09	1.034E-11
BRCL2M	1.214E-09	1.578E-10	1.214E-09	6.762E-11
CHBR3	4.106E-08		4.106E-08	
BBPH	1.815E-10		1.815E-10	
CCL4	1.078E-09	5.603E-11	1.078E-09	2.401E-11
CLBENZ	2.450E-09		2.450E-09	
CHCL3	2.487E-09	2.014E-10	2.487E-09	8.632E-11
CD	1.293E-12	7.888E-12	1.293E-12	3.380E-12
CR	5.433E-10	2.228E-08	5.433E-10	9.547E-09
CU	1.418E-09		1.418E-09	
DIETHP	1.599E-09		1.599E-09	
MDCBEN	1.701E-10		1.701E-10	
ODCBEN	2.189E-10		2.189E-10	
PDCBEN	1.236E-10	2.967E-12	1.236E-10	1.272E-12
ME2PHE	2.609E-09		2.609E-09	
DIOXAN	3.238E-09	3.562E-11	3.238E-09	1.526E-11
EDC	1.261E-13	1.148E-14	1.261E-13	4.918E-15
ETHGLY	5.095E-09		5.095E-09	
HEXBEN	2.949E-10	5.014E-10	2.949E-10	2.149E-10
PB	9.256E-12		9.256E-12	
HG	3.108E-10		3.108E-10	
CH2BR2	7.180E-09		7.180E-09	
CH2CL2	3.676E-09	5.882E-12	3.676E-09	2.521E-12
NAPHTH	8.961E-09		8.961E-09	
NI	8.099E-11	1.377E-10	8.099E-11	5.901E-11
NO2BEN	5.445E-09		5.445E-09	
NO2PHE	2.371E-08		2.371E-08	
PFORMA	3.442E-11	1.583E-12	3.442E-11	6.785E-13
PHENOL	2.406E-09		2.406E-09	
AG	2.518E-10		2.518E-10	
TCDD	1.112E-14	1.734E-09	1.112E-14	7.432E-10
PCE	1.276E-09	4.248E-12	1.276E-09	1.821E-12
1122PC	2.006E-12	4.011E-13	2.006E-12	1.719E-13
TCE	2.639E-09	4.486E-11	2.639E-09	1.923E-11
CL3BEN	2.949E-10		2.949E-10	

PATHWAY RISK -->	2.567E-08		1.100E-08	

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:13 VERSION: 42688

POLLUTANT	SOIL RECEPTOR NUMBER 12			
	70 YEARS		30.0 YEARS	
	DOSE	RISK	DOSE	RISK
BA	4.541E-11		1.946E-11	
BE	3.973E-12	3.337E-11	1.703E-12	6.130E-12
BEHP	1.992E-11	2.788E-13	1.992E-11	1.195E-13
BBPH	2.096E-12		2.096E-12	
CD	1.903E-11		8.156E-12	
CR	7.996E-09		3.427E-09	
CU	2.087E-08		8.943E-09	
DIETHP	1.848E-11		1.848E-11	
ME2PHE	3.839E-08		1.645E-08	
HEXBEN	5.166E-10	8.782E-10	5.026E-10	3.662E-10
PB	1.362E-10		5.838E-11	
HG	4.574E-09		1.960E-09	
NAPHTH	8.156E-12		8.156E-12	
NI	1.192E-10		5.108E-11	
NO2BEN	8.013E-08		3.434E-08	
NO2PHE	3.489E-07		1.495E-07	
PHENOL	7.299E-12		7.299E-12	
AG	3.706E-09		1.588E-09	
TCDD	1.192E-14	1.859E-09	9.988E-15	6.678E-10
CL3BEN	5.166E-10		5.026E-10	

PATHWAY RISK ==>	2.771E-09		1.040E-09	

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upperepal.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:13 VERSION: 42688

PLANT				
RECEPTOR NUMBER 12				
		70 YEARS		30.0 YEARS
POLLUTANT	DOSE	RISK	DOSE	RISK
BA	3.750E-11		2.401E-11	
BE	1.370E-12	1.151E-11	1.282E-12	4.614E-12
BEHP	7.928E-09	1.110E-10	7.928E-09	4.757E-11
BBPH	8.610E-10		8.609E-10	
CD	5.183E-11		2.241E-11	
CR	5.821E-10		3.193E-10	
CU	7.201E-08		3.451E-08	
DIETHP	7.310E-09		7.310E-09	
ME2PHE	1.346E-07		6.440E-08	
HEXBEN	4.514E-09	7.674E-09	3.967E-09	2.890E-09
PB	6.809E-11		5.299E-11	
HG	1.992E-08		9.338E-09	
NAPHTH	4.040E-08		4.040E-08	
NI	1.151E-10		7.017E-11	
NO2BEN	3.630E-06		1.570E-06	
NO2PHE	4.468E-06		1.976E-06	
PHENOL	1.135E-08		1.135E-08	
AG	8.138E-09		4.135E-09	
TCDD	4.563E-14	7.118E-09	3.624E-14	2.423E-09
CL3BEN	3.877E-09		3.439E-09	

PATHWAY RISK -->		1.491E-08		5.366E-09

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upperepa1.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:13 VERSION: 42688

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      DAIRY AND BEEF
      RECEPTOR NUMBER 12
      70 YEARS          30.0 YEARS
POLLUTANT  DOSE      RISK      DOSE      RISK
BA          4.352E-11          3.415E-11
BEHP        1.517E-08 2.124E-10  1.517E-08 9.102E-11
BBPH        1.597E-09          1.597E-09
DIETHP      1.407E-08          1.407E-08
MDCBEN      2.331E-09          1.854E-09
ODCBEN      2.999E-09          2.385E-09
PDCBEN      1.159E-09 2.782E-11  1.157E-09 1.190E-11
ME2PHE      4.229E-08          3.123E-08
HEXBEN      2.863E-09 4.867E-09  2.856E-09 2.080E-09
NO2BEN      2.669E-07          1.417E-07
NO2PHE      5.573E-07          3.580E-07
PHENOL      2.117E-08          2.117E-08
TCDD        1.905E-13 2.971E-08  1.865E-13 1.247E-08
CL3BEN      2.843E-09          2.836E-09
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PATHWAY RISK ==> 3.482E-08          1.465E-08

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upperepal.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:13 VERSION: 42688

DERMAL (CONTACT W/ SOIL)				
RECEPTOR NUMBER 12				
POLLUTANT	70 YEARS		30.0 YEARS	
	DOSE	RISK	DOSE	RISK
BA	9.467E-12		4.057E-12	
BE	8.284E-11	6.958E-10	3.550E-11	1.278E-10
BEHP	4.153E-12	5.814E-14	4.153E-12	2.492E-14
BBPH	4.371E-13		4.371E-13	
CD	3.968E-12		1.700E-12	
CR	1.667E-09		7.145E-10	
CU	4.351E-09		1.865E-09	
DIETHP	3.852E-12		3.852E-12	
ME2PHE	8.005E-09		3.431E-09	
HEXBEN	1.077E-10	1.831E-10	1.048E-10	7.634E-11
PB	2.840E-11		1.217E-11	
HG	9.537E-10		4.087E-10	
NAPHTH	1.700E-12		1.700E-12	
NI	2.485E-10		1.065E-10	
NO2BEN	1.671E-08		7.160E-09	
NO2PHE	7.274E-08		3.118E-08	
PHENOL	1.522E-12		1.522E-12	
AG	7.727E-10		3.311E-10	
TCDD	8.283E-15	1.292E-09	6.942E-15	4.641E-10
CL3BEN	1.077E-10		1.048E-10	

PATHWAY RISK -->		2.171E-09	6.683E-10	

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:13 VERSION: 42688

DRINKING WATER				
RECEPTOR NUMBER 12				
POLLUTANT	70 YEARS		30.0 YEARS	
	DOSE	RISK	DOSE	RISK
BA	5.203E-14		2.230E-14	
BE	4.553E-13	3.824E-12	1.951E-13	3.824E-12
BEHP	2.908E-11	4.071E-13	1.246E-11	4.071E-13
BBPH	3.061E-12		1.312E-12	
CD	2.181E-14		9.346E-15	
CR	9.163E-12		3.927E-12	
CU	2.391E-11		1.025E-11	
DIETHP	2.697E-11		1.156E-11	
ME2PHE	4.400E-11		1.886E-11	
HEXBEN	4.974E-12	8.455E-12	2.132E-12	8.455E-12
PB	1.561E-13		6.690E-14	
HG	5.241E-12		2.246E-12	
NAPHTH	1.511E-10		6.477E-11	
NI	1.366E-12		5.854E-13	
NO2BEN	9.182E-11		3.935E-11	
NO2PHE	3.998E-10		1.713E-10	
PHENOL	4.056E-11		1.738E-11	
AG	4.247E-12		1.820E-12	
TCDD	5.624E-17	2.925E-11	2.410E-17	2.925E-11
CL3BEN	4.974E-12		2.132E-12	

PATHWAY RISK -->	4.193E-11		4.193E-11	

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:13 VERSION: 42688

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      MOTHERS MILK
      RECEPTOR NUMBER 12
      70 YEARS          30.0 YEARS
POLLUTANT  DOSE      RISK      DOSE      RISK
BEHP       7.186E-12  1.006E-13  1.676E-11  1.005E-13
BBPH       7.643E-13                1.782E-12
DIETHP     6.653E-12                1.551E-11
PDCBEN     3.971E-12  9.530E-14  9.252E-12  9.516E-14
ME2PHE     6.994E-11                8.533E-11
HEXBEN     2.855E-09  4.853E-09  6.201E-09  4.518E-09
NAPHTH     1.084E-10                2.524E-10
NO2BEN     3.768E-09                3.865E-09
NO2PHE     8.467E-09                9.166E-09
PHENOL     5.412E-11                1.262E-10
TCDD       2.189E-13  3.415E-08  4.791E-13  3.203E-08
CL3BEN     5.019E-11                1.100E-10
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PATHWAY RISK ==>  3.901E-08                3.655E-08

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upperepal.out

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:13 VERSION: 42688

RISK TABLE FOR RECEPTOR : 12

POLLUTANT	INHALATION	SOIL	PLANT	FISH	DAIRY	DERMAL	WATER	HUMAN MILK	TOTAL
BENZ	2.513E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.513E-10
BE	2.268E-10	3.337E-11	1.151E-11	0.000E+00	0.000E+00	6.958E-10	3.824E-12	0.000E+00	9.713E-10
BEHP	2.414E-11	2.788E-13	1.110E-10	0.000E+00	2.124E-10	5.814E-14	4.071E-13	1.006E-13	3.484E-10
BRCL2M	1.578E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.578E-10
CCL4	5.603E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.603E-11
CHCL3	2.014E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.014E-10
CD	7.888E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.888E-12
CR	2.228E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.228E-08
PDCBEN	2.967E-12	0.000E+00	0.000E+00	0.000E+00	2.782E-11	0.000E+00	0.000E+00	9.530E-14	3.089E-11
DIOXAN	3.562E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.562E-11
EDC	1.148E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.148E-14
HEXBEN	5.014E-10	8.782E-10	7.674E-09	0.000E+00	4.867E-09	1.831E-10	8.455E-12	4.853E-09	1.896E-08
CH2CL2	5.882E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.882E-12
NI	1.377E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.377E-10
PFORMA	1.583E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.583E-12
TCDD	1.734E-09	1.859E-09	7.118E-09	0.000E+00	2.971E-08	1.292E-09	2.925E-11	3.415E-08	7.590E-08
PCE	4.248E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.248E-12
1122PC	4.011E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.011E-13
TCE	4.486E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.486E-11
TOTAL -	2.567E-08	2.771E-09	1.491E-08	0.000E+00	3.482E-08	2.171E-09	4.193E-11	3.901E-08	1.194E-07

*** TOTAL 30.0 YR RISK ==> 6.932E-08 ***

*** TOTAL 70.0 YR RISK ==> 1.194E-07 ***

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upperepal.out

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:13 VERSION: 42688

Pollutant Name	Inhalation Exposure	Inhalation ADI	Safety Factor	Ingestion Exposure	Ingestion ADI	Safety Factor
BA	3.09E-12	1.00E-01	3.24E+10	1.36E-10	5.00E-02	3.68E+08
BENZ	8.66E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BE	2.70E-11	0.00E+00	0.00E+00	6.18E-10	5.00E-03	8.10E+06
BEHP	1.72E-09	0.00E+00	0.00E+00	2.32E-08	2.00E-02	8.64E+05
BRCL2M	1.21E-09	0.00E+00	0.00E+00	0.00E+00	2.00E-02	0.00E+00
CHBR3	4.11E-08	3.40E-03	8.28E+04	0.00E+00	2.00E-02	0.00E+00
BBPH	1.81E-10	2.00E-01	1.10E+09	2.46E-09	2.00E-01	8.11E+07
CCL4	1.08E-09	0.00E+00	0.00E+00	0.00E+00	7.00E-04	0.00E+00
CLBENZ	2.45E-09	5.00E-03	2.04E+06	0.00E+00	2.00E-02	0.00E+00
CHCL3	2.49E-09	0.00E+00	0.00E+00	0.00E+00	1.00E-02	0.00E+00
CD	1.29E-12	0.00E+00	0.00E+00	8.03E-11	3.00E-04	3.74E+06
CR	5.43E-10	0.00E+00	0.00E+00	1.26E-08	5.00E-03	3.98E+05
CU	1.42E-09	1.40E-04	9.87E+04	9.72E-08	8.60E-02	8.84E+05
DIETHP	1.60E-09	3.40E-03	2.13E+06	2.14E-08	8.00E-01	3.73E+07
MDCBEN	1.70E-10	4.00E-02	2.35E+08	2.33E-09	9.00E-02	3.86E+07
ODCBEN	2.19E-10	4.00E-02	1.83E+08	3.00E-09	9.00E-02	3.00E+07
PDCBEN	1.24E-10	2.00E-01	1.62E+09	1.16E-09	0.00E+00	0.00E+00
ME2PHE	2.61E-09	6.00E-04	2.30E+05	2.23E-07	6.00E-04	2.69E+03
DIOXAN	3.24E-09	6.10E-02	1.88E+07	0.00E+00	0.00E+00	0.00E+00
EDC	1.26E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ETHGLY	5.10E-09	8.50E-02	1.67E+07	0.00E+00	2.00E+00	0.00E+00
HEXBEN	2.95E-10	0.00E+00	0.00E+00	1.09E-08	0.00E+00	0.00E+00
PB	9.26E-12	4.30E-04	4.65E+07	2.33E-10	1.40E-03	6.01E+06
HG	3.11E-10	6.80E-05	2.19E+05	2.55E-08	3.00E-04	1.18E+04
CH2BR2	7.18E-09	2.50E-01	3.48E+07	0.00E+00	2.50E-01	0.00E+00
CH2CL2	3.68E-09	8.60E-01	2.34E+08	0.00E+00	6.00E-02	0.00E+00
NAPHTH	8.96E-09	3.40E-02	3.79E+06	4.07E-08	4.00E-01	9.84E+06
NI	8.10E-11	0.00E+00	0.00E+00	2.59E-09	0.00E+00	0.00E+00
NO2BEN	5.44E-09	6.00E-04	1.10E+05	4.00E-06	5.00E-04	1.25E+02
NO2PHE	2.37E-08	6.50E-04	2.74E+04	5.46E-06	6.50E-04	1.19E+02
PFORMA	3.44E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PHENOL	2.41E-09	1.30E-02	5.40E+06	3.26E-08	6.00E-01	1.84E+07
AG	2.52E-10	6.80E-06	2.70E+04	1.26E-08	3.00E-03	2.38E+05
TCDD	1.11E-14	0.00E+00	0.00E+00	3.70E-13	0.00E+00	0.00E+00
PCE	1.28E-09	0.00E+00	0.00E+00	0.00E+00	1.00E-02	0.00E+00
1122PC	2.01E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TCE	2.64E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CL3BEN	2.95E-10	3.00E-03	1.02E+07	7.40E-09	2.00E-02	2.70E+06

POLLUTANT - Pollutant identifier

INHALATION EXPOSURE - Exposure through inhalation of pollutant

INHALATION ADI - Inhalation Acceptable Daily Intake

INHALATION SAFETY FACTOR - ADI divided by exposure

INGESTION EXPOSURE - Exposure through all pathways other than inhalation

INGESTION ADI - Ingestion Acceptable Daily Intake

INGESTION SAFETY FACTOR - ADI divided by exposure

8/11/20
15:49:11

upperpa1.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:22 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
1	0.	1.04E-08	1.12E-09	6.05E-09	0.00E+00	3.48E-08	8.80E-10	4.19E-11	3.13E-08	8.46E-08	0.00E+00
2	0.	4.32E-09	4.64E-10	2.50E-09	0.00E+00	3.48E-08	3.64E-10	4.19E-11	2.82E-08	7.07E-08	0.00E+00
3	0.	5.01E-09	5.41E-10	2.91E-09	0.00E+00	3.48E-08	4.24E-10	4.19E-11	2.85E-08	7.23E-08	0.00E+00
4	0.	7.04E-09	7.61E-10	4.09E-09	0.00E+00	3.48E-08	5.96E-10	4.19E-11	2.96E-08	7.69E-08	0.00E+00
5	0.	6.43E-09	6.94E-10	3.74E-09	0.00E+00	3.48E-08	5.44E-10	4.19E-11	2.93E-08	7.55E-08	0.00E+00
6	0.	4.78E-09	5.17E-10	2.78E-09	0.00E+00	3.48E-08	4.05E-10	4.19E-11	2.84E-08	7.18E-08	0.00E+00
7	0.	3.55E-09	3.84E-10	2.07E-09	0.00E+00	3.48E-08	3.01E-10	4.19E-11	2.78E-08	6.90E-08	0.00E+00
8	0.	2.76E-09	2.99E-10	1.61E-09	0.00E+00	3.48E-08	2.34E-10	4.19E-11	2.74E-08	6.72E-08	0.00E+00
9	0.	2.21E-09	2.39E-10	1.29E-09	0.00E+00	3.48E-08	1.87E-10	4.19E-11	2.71E-08	6.59E-08	0.00E+00
10	0.	7.20E-10	5.86E-11	3.16E-10	0.00E+00	3.48E-08	4.59E-11	4.19E-11	2.63E-08	6.23E-08	0.00E+00
11	0.	2.60E-08	2.78E-09	1.50E-08	0.00E+00	3.48E-08	2.18E-09	4.19E-11	3.91E-08	1.20E-07	0.00E+00
12	0.	2.57E-08	2.77E-09	1.49E-08	0.00E+00	3.48E-08	2.17E-09	4.19E-11	3.90E-08	1.19E-07	0.00E+00
13	0.	1.56E-08	1.69E-09	9.07E-09	0.00E+00	3.48E-08	1.32E-09	4.19E-11	3.39E-08	9.64E-08	0.00E+00
14	0.	1.18E-08	1.28E-09	6.87E-09	0.00E+00	3.48E-08	1.00E-09	4.19E-11	3.20E-08	8.78E-08	0.00E+00
15	0.	7.62E-09	8.27E-10	4.45E-09	0.00E+00	3.48E-08	6.48E-10	4.19E-11	2.99E-08	7.83E-08	0.00E+00
16	0.	5.04E-09	5.44E-10	2.93E-09	0.00E+00	3.48E-08	4.27E-10	4.19E-11	2.86E-08	7.24E-08	0.00E+00
17	0.	3.54E-09	3.84E-10	2.07E-09	0.00E+00	3.48E-08	3.01E-10	4.19E-11	2.78E-08	6.90E-08	0.00E+00
18	0.	2.62E-09	2.83E-10	1.53E-09	0.00E+00	3.48E-08	2.22E-10	4.19E-11	2.73E-08	6.68E-08	0.00E+00
19	0.	3.87E-10	4.01E-11	2.16E-10	0.00E+00	3.48E-08	3.14E-11	4.19E-11	2.62E-08	6.17E-08	0.00E+00
20	0.	9.54E-10	1.01E-10	5.45E-10	0.00E+00	3.48E-08	7.93E-11	4.19E-11	2.65E-08	6.30E-08	0.00E+00
21	0.	1.52E-08	1.64E-09	8.83E-09	0.00E+00	3.48E-08	1.29E-09	4.19E-11	3.37E-08	9.55E-08	0.00E+00
22	0.	1.31E-08	1.41E-09	7.59E-09	0.00E+00	3.48E-08	1.10E-09	4.19E-11	3.26E-08	9.06E-08	0.00E+00
23	0.	1.05E-08	1.13E-09	6.10E-09	0.00E+00	3.48E-08	8.89E-10	4.19E-11	3.13E-08	8.48E-08	0.00E+00
24	0.	9.04E-09	9.77E-10	5.26E-09	0.00E+00	3.48E-08	7.66E-10	4.19E-11	3.06E-08	8.15E-08	0.00E+00
25	0.	5.63E-09	6.07E-10	3.27E-09	0.00E+00	3.48E-08	4.76E-10	4.19E-11	2.89E-08	7.37E-08	0.00E+00
26	0.	4.16E-09	4.50E-10	2.42E-09	0.00E+00	3.48E-08	3.53E-10	4.19E-11	2.81E-08	7.04E-08	0.00E+00
27	0.	3.11E-09	3.36E-10	1.81E-09	0.00E+00	3.48E-08	2.64E-10	4.19E-11	2.76E-08	6.80E-08	0.00E+00
28	0.	3.39E-10	3.59E-11	1.93E-10	0.00E+00	3.48E-08	2.82E-11	4.19E-11	2.62E-08	6.16E-08	0.00E+00
29	0.	5.90E-10	6.32E-11	3.40E-10	0.00E+00	3.48E-08	4.95E-11	4.19E-11	2.63E-08	6.22E-08	0.00E+00
30	0.	2.28E-09	2.45E-10	1.32E-09	0.00E+00	3.48E-08	1.92E-10	4.19E-11	2.72E-08	6.61E-08	0.00E+00
31	0.	9.37E-09	1.01E-09	5.43E-09	0.00E+00	3.48E-08	7.90E-10	4.19E-11	3.07E-08	8.22E-08	0.00E+00
32	0.	1.08E-08	1.17E-09	6.27E-09	0.00E+00	3.48E-08	9.13E-10	4.19E-11	3.15E-08	8.55E-08	0.00E+00
33	0.	9.69E-09	1.05E-09	5.65E-09	0.00E+00	3.48E-08	8.23E-10	4.19E-11	3.09E-08	8.30E-08	0.00E+00
34	0.	6.65E-09	7.15E-10	3.85E-09	0.00E+00	3.48E-08	5.61E-10	4.19E-11	2.94E-08	7.60E-08	0.00E+00
35	0.	4.57E-09	4.96E-10	2.67E-09	0.00E+00	3.48E-08	3.88E-10	4.19E-11	2.83E-08	7.13E-08	0.00E+00
36	0.	3.36E-09	3.63E-10	1.95E-09	0.00E+00	3.48E-08	2.84E-10	4.19E-11	2.77E-08	6.85E-08	0.00E+00
37	0.	3.63E-10	3.87E-11	2.08E-10	0.00E+00	3.48E-08	3.04E-11	4.19E-11	2.62E-08	6.17E-08	0.00E+00
38	0.	6.13E-10	6.60E-11	3.55E-10	0.00E+00	3.48E-08	5.17E-11	4.19E-11	2.63E-08	6.23E-08	0.00E+00
39	0.	1.06E-09	1.15E-10	6.18E-10	0.00E+00	3.48E-08	9.00E-11	4.19E-11	2.65E-08	6.33E-08	0.00E+00
40	0.	3.98E-09	4.29E-10	2.31E-09	0.00E+00	3.48E-08	3.36E-10	4.19E-11	2.80E-08	6.99E-08	0.00E+00
41	0.	8.40E-09	9.11E-10	4.90E-09	0.00E+00	3.48E-08	7.14E-10	4.19E-11	3.03E-08	8.01E-08	0.00E+00
42	0.	1.02E-08	1.10E-09	5.94E-09	0.00E+00	3.48E-08	8.64E-10	4.19E-11	3.12E-08	8.41E-08	0.00E+00
43	0.	6.65E-09	7.22E-10	3.89E-09	0.00E+00	3.48E-08	5.66E-10	4.19E-11	2.94E-08	7.61E-08	0.00E+00
44	0.	5.06E-09	5.48E-10	2.95E-09	0.00E+00	3.48E-08	4.29E-10	4.19E-11	2.86E-08	7.24E-08	0.00E+00
45	0.	3.74E-09	4.05E-10	2.18E-09	0.00E+00	3.48E-08	3.17E-10	4.19E-11	2.79E-08	6.94E-08	0.00E+00
46	0.	3.65E-10	3.91E-11	2.10E-10	0.00E+00	3.48E-08	3.06E-11	4.19E-11	2.62E-08	6.17E-08	0.00E+00
47	0.	6.40E-10	6.88E-11	3.70E-10	0.00E+00	3.48E-08	5.39E-11	4.19E-11	2.63E-08	6.23E-08	0.00E+00
48	0.	9.52E-10	1.02E-10	5.50E-10	0.00E+00	3.48E-08	8.01E-11	4.19E-11	2.65E-08	6.30E-08	0.00E+00
49	0.	2.49E-09	2.69E-10	1.45E-09	0.00E+00	3.48E-08	2.11E-10	4.19E-11	2.73E-08	6.65E-08	0.00E+00
50	0.	5.87E-09	6.35E-10	3.42E-09	0.00E+00	3.48E-08	4.98E-10	4.19E-11	2.90E-08	7.43E-08	0.00E+00
51	0.	9.36E-09	1.02E-09	5.47E-09	0.00E+00	3.48E-08	7.96E-10	4.19E-11	3.08E-08	8.23E-08	0.00E+00
52	0.	6.12E-09	6.60E-10	3.55E-09	0.00E+00	3.48E-08	5.17E-10	4.19E-11	2.91E-08	7.48E-08	0.00E+00
53	0.	5.07E-09	5.48E-10	2.95E-09	0.00E+00	3.48E-08	4.29E-10	4.19E-11	2.86E-08	7.24E-08	0.00E+00
54	0.	3.92E-09	4.22E-10	2.27E-09	0.00E+00	3.48E-08	3.31E-10	4.19E-11	2.80E-08	6.98E-08	0.00E+00
55	0.	4.09E-10	4.40E-11	2.37E-10	0.00E+00	3.48E-08	3.45E-11	4.19E-11	2.62E-08	6.18E-08	0.00E+00

89/11/29
15:49:11

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upperepal.out

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:23 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
56	0.	5.99E-10	6.46E-11	3.47E-10	0.00E+00	3.48E-08	5.06E-11	4.19E-11	2.63E-08	6.22E-08	0.00E+00
57	0.	8.87E-10	9.53E-11	5.13E-10	0.00E+00	3.48E-08	7.46E-11	4.19E-11	2.65E-08	6.29E-08	0.00E+00
58	0.	1.65E-09	1.78E-10	9.60E-10	0.00E+00	3.48E-08	1.40E-10	4.19E-11	2.68E-08	6.46E-08	0.00E+00
59	0.	3.61E-09	3.91E-10	2.10E-09	0.00E+00	3.48E-08	3.06E-10	4.19E-11	2.78E-08	6.91E-08	0.00E+00
60	0.	6.22E-09	6.74E-10	3.63E-09	0.00E+00	3.48E-08	5.28E-10	4.19E-11	2.92E-08	7.51E-08	0.00E+00
61	0.	4.71E-09	5.10E-10	2.74E-09	0.00E+00	3.48E-08	3.99E-10	4.19E-11	2.84E-08	7.16E-08	0.00E+00
62	0.	4.33E-09	4.68E-10	2.52E-09	0.00E+00	3.48E-08	3.66E-10	4.19E-11	2.82E-08	7.07E-08	0.00E+00
63	0.	3.85E-09	4.15E-10	2.24E-09	0.00E+00	3.48E-08	3.25E-10	4.19E-11	2.80E-08	6.96E-08	0.00E+00
64	0.	2.83E-09	3.06E-10	1.65E-09	0.00E+00	3.48E-08	2.40E-10	4.19E-11	2.74E-08	6.73E-08	0.00E+00
65	0.	6.66E-10	7.19E-11	3.87E-10	0.00E+00	3.48E-08	5.63E-11	4.19E-11	2.63E-08	6.24E-08	0.00E+00
66	0.	6.98E-10	7.53E-11	4.04E-10	0.00E+00	3.48E-08	5.88E-11	4.19E-11	2.64E-08	6.25E-08	0.00E+00
67	0.	7.69E-10	8.31E-11	4.47E-10	0.00E+00	3.48E-08	6.51E-11	4.19E-11	2.64E-08	6.26E-08	0.00E+00
68	0.	8.21E-10	8.90E-11	4.79E-10	0.00E+00	3.48E-08	6.97E-11	4.19E-11	2.64E-08	6.27E-08	0.00E+00
69	0.	8.40E-10	9.04E-11	4.86E-10	0.00E+00	3.48E-08	7.08E-11	4.19E-11	2.64E-08	6.28E-08	0.00E+00
70	0.	8.21E-10	8.86E-11	4.77E-10	0.00E+00	3.48E-08	6.95E-11	4.19E-11	2.64E-08	6.27E-08	0.00E+00
71	0.	7.89E-10	8.52E-11	4.58E-10	0.00E+00	3.48E-08	6.67E-11	4.19E-11	2.64E-08	6.27E-08	0.00E+00
72	0.	7.30E-10	7.89E-11	4.25E-10	0.00E+00	3.48E-08	6.18E-11	4.19E-11	2.64E-08	6.25E-08	0.00E+00
73	0.	6.85E-10	7.40E-11	3.98E-10	0.00E+00	3.48E-08	5.80E-11	4.19E-11	2.64E-08	6.25E-08	0.00E+00
74	0.	5.32E-10	5.76E-11	3.10E-10	0.00E+00	3.48E-08	4.51E-11	4.19E-11	2.63E-08	6.21E-08	0.00E+00
75	0.	4.08E-10	4.40E-11	2.37E-10	0.00E+00	3.48E-08	3.45E-11	4.19E-11	2.62E-08	6.18E-08	0.00E+00
76	0.	4.44E-10	4.78E-11	2.57E-10	0.00E+00	3.48E-08	3.75E-11	4.19E-11	2.62E-08	6.19E-08	0.00E+00
77	0.	4.89E-10	5.27E-11	2.84E-10	0.00E+00	3.48E-08	4.13E-11	4.19E-11	2.63E-08	6.20E-08	0.00E+00
78	0.	5.90E-10	6.35E-11	3.42E-10	0.00E+00	3.48E-08	4.98E-11	4.19E-11	2.63E-08	6.22E-08	0.00E+00
79	0.	7.20E-10	7.75E-11	4.17E-10	0.00E+00	3.48E-08	6.07E-11	4.19E-11	2.64E-08	6.25E-08	0.00E+00
80	0.	8.24E-10	8.90E-11	4.79E-10	0.00E+00	3.48E-08	6.97E-11	4.19E-11	2.64E-08	6.27E-08	0.00E+00
81	0.	9.09E-10	9.77E-11	5.26E-10	0.00E+00	3.48E-08	7.66E-11	4.19E-11	2.65E-08	6.29E-08	0.00E+00
82	0.	1.00E-09	1.07E-10	5.79E-10	0.00E+00	3.48E-08	8.42E-11	4.19E-11	2.65E-08	6.31E-08	0.00E+00
83	0.	1.05E-09	1.12E-10	6.05E-10	0.00E+00	3.48E-08	8.80E-11	4.19E-11	2.65E-08	6.32E-08	0.00E+00
84	0.	1.00E-09	1.07E-10	5.79E-10	0.00E+00	3.48E-08	8.42E-11	4.19E-11	2.65E-08	6.31E-08	0.00E+00
85	0.	1.02E-09	1.09E-10	5.86E-10	0.00E+00	3.48E-08	8.53E-11	4.19E-11	2.65E-08	6.32E-08	0.00E+00
86	0.	9.49E-10	1.02E-10	5.47E-10	0.00E+00	3.48E-08	7.96E-11	4.19E-11	2.65E-08	6.30E-08	0.00E+00
87	0.	9.61E-10	1.03E-10	5.54E-10	0.00E+00	3.48E-08	8.07E-11	4.19E-11	2.65E-08	6.30E-08	0.00E+00
88	0.	9.80E-10	1.05E-10	5.67E-10	0.00E+00	3.48E-08	8.26E-11	4.19E-11	2.65E-08	6.31E-08	0.00E+00
89	0.	1.04E-09	1.12E-10	6.01E-10	0.00E+00	3.48E-08	8.75E-11	4.19E-11	2.65E-08	6.32E-08	0.00E+00
90	0.	1.03E-09	1.11E-10	5.99E-10	0.00E+00	3.48E-08	8.72E-11	4.19E-11	2.65E-08	6.32E-08	0.00E+00
91	0.	4.20E-10	4.54E-11	2.44E-10	0.00E+00	3.48E-08	3.55E-11	4.19E-11	2.62E-08	6.18E-08	0.00E+00
92	0.	5.03E-10	5.41E-11	2.91E-10	0.00E+00	3.48E-08	4.24E-11	4.19E-11	2.63E-08	6.20E-08	0.00E+00
93	0.	7.12E-10	7.64E-11	4.11E-10	0.00E+00	3.48E-08	5.99E-11	4.19E-11	2.64E-08	6.25E-08	0.00E+00
94	0.	8.42E-10	9.07E-11	4.88E-10	0.00E+00	3.48E-08	7.11E-11	4.19E-11	2.64E-08	6.28E-08	0.00E+00
95	0.	1.02E-09	1.10E-10	5.90E-10	0.00E+00	3.48E-08	8.59E-11	4.19E-11	2.65E-08	6.32E-08	0.00E+00
96	0.	1.06E-09	1.14E-10	6.14E-10	0.00E+00	3.48E-08	8.94E-11	4.19E-11	2.65E-08	6.33E-08	0.00E+00
97	0.	1.06E-09	1.14E-10	6.14E-10	0.00E+00	3.48E-08	8.94E-11	4.19E-11	2.65E-08	6.33E-08	0.00E+00
98	0.	8.68E-10	9.32E-11	5.02E-10	0.00E+00	3.48E-08	7.30E-11	4.19E-11	2.64E-08	6.28E-08	0.00E+00
99	0.	8.17E-10	8.79E-11	4.73E-10	0.00E+00	3.48E-08	6.89E-11	4.19E-11	2.64E-08	6.27E-08	0.00E+00
100	0.	7.57E-10	8.13E-11	4.38E-10	0.00E+00	3.48E-08	6.37E-11	4.19E-11	2.64E-08	6.26E-08	0.00E+00
101	0.	8.93E-10	9.67E-11	5.20E-10	0.00E+00	3.48E-08	7.57E-11	4.19E-11	2.65E-08	6.29E-08	0.00E+00
102	0.	9.96E-10	1.08E-10	5.80E-10	0.00E+00	3.48E-08	8.45E-11	4.19E-11	2.65E-08	6.31E-08	0.00E+00
103	0.	1.19E-09	1.28E-10	6.89E-10	0.00E+00	3.48E-08	1.00E-10	4.19E-11	2.66E-08	6.36E-08	0.00E+00
104	0.	1.44E-09	1.55E-10	8.36E-10	0.00E+00	3.48E-08	1.22E-10	4.19E-11	2.67E-08	6.41E-08	0.00E+00
105	0.	1.79E-09	1.92E-10	1.03E-09	0.00E+00	3.48E-08	1.51E-10	4.19E-11	2.69E-08	6.49E-08	0.00E+00
106	0.	2.14E-09	2.31E-10	1.24E-09	0.00E+00	3.48E-08	1.81E-10	4.19E-11	2.71E-08	6.57E-08	0.00E+00
107	0.	3.17E-09	3.42E-10	1.84E-09	0.00E+00	3.48E-08	2.68E-10	4.19E-11	2.76E-08	6.81E-08	0.00E+00
108	0.	5.21E-09	5.62E-10	3.02E-09	0.00E+00	3.48E-08	4.40E-10	4.19E-11	2.86E-08	7.27E-08	0.00E+00
109	0.	5.91E-09	6.39E-10	3.44E-09	0.00E+00	3.48E-08	5.00E-10	4.19E-11	2.90E-08	7.43E-08	0.00E+00
110	0.	4.74E-09	5.13E-10	2.76E-09	0.00E+00	3.48E-08	4.02E-10	4.19E-11	2.84E-08	7.17E-08	0.00E+00
111	0.	3.01E-09	3.25E-10	1.75E-09	0.00E+00	3.48E-08	2.55E-10	4.19E-11	2.75E-08	6.77E-08	0.00E+00
112	0.	3.42E-09	3.70E-10	1.99E-09	0.00E+00	3.48E-08	2.90E-10	4.19E-11	2.77E-08	6.87E-08	0.00E+00

89/11/29
15:49:31

upperpal.out

37

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:23 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
113	0.	2.78E-09	3.00E-10	1.61E-09	0.00E+00	3.48E-08	2.35E-10	4.19E-11	2.74E-08	6.72E-08	0.00E+00
114	0.	2.23E-09	2.41E-10	1.30E-09	0.00E+00	3.48E-08	1.89E-10	4.19E-11	2.71E-08	6.59E-08	0.00E+00
115	0.	9.57E-10	1.03E-10	5.54E-10	0.00E+00	3.48E-08	8.07E-11	4.19E-11	2.65E-08	6.30E-08	0.00E+00
116	0.	1.02E-09	1.11E-10	5.95E-10	0.00E+00	3.48E-08	8.67E-11	4.19E-11	2.65E-08	6.32E-08	0.00E+00
117	0.	1.16E-09	1.25E-10	6.71E-10	0.00E+00	3.48E-08	9.76E-11	4.19E-11	2.66E-08	6.35E-08	0.00E+00
118	0.	1.36E-09	1.47E-10	7.91E-10	0.00E+00	3.48E-08	1.15E-10	4.19E-11	2.67E-08	6.40E-08	0.00E+00
119	0.	1.84E-09	1.99E-10	1.07E-09	0.00E+00	3.48E-08	1.56E-10	4.19E-11	2.69E-08	6.51E-08	0.00E+00
120	0.	2.52E-09	2.73E-10	1.47E-09	0.00E+00	3.48E-08	2.14E-10	4.19E-11	2.73E-08	6.66E-08	0.00E+00
121	0.	2.78E-09	3.00E-10	1.61E-09	0.00E+00	3.48E-08	2.35E-10	4.19E-11	2.74E-08	6.72E-08	0.00E+00
122	0.	2.98E-09	3.22E-10	1.73E-09	0.00E+00	3.48E-08	2.52E-10	4.19E-11	2.75E-08	6.77E-08	0.00E+00
123	0.	3.33E-09	3.59E-10	1.93E-09	0.00E+00	3.48E-08	2.82E-10	4.19E-11	2.77E-08	6.85E-08	0.00E+00
124	0.	4.31E-09	4.64E-10	2.50E-09	0.00E+00	3.48E-08	3.64E-10	4.19E-11	2.82E-08	7.07E-08	0.00E+00
125	0.	3.02E-09	3.26E-10	1.75E-09	0.00E+00	3.48E-08	2.55E-10	4.19E-11	2.75E-08	6.77E-08	0.00E+00
126	0.	2.02E-09	2.17E-10	1.17E-09	0.00E+00	3.48E-08	1.70E-10	4.19E-11	2.70E-08	6.55E-08	0.00E+00
127	0.	1.32E-09	1.42E-10	7.64E-10	0.00E+00	3.48E-08	1.11E-10	4.19E-11	2.67E-08	6.39E-08	0.00E+00
128	0.	9.04E-10	9.81E-11	5.28E-10	0.00E+00	3.48E-08	7.68E-11	4.19E-11	2.65E-08	6.29E-08	0.00E+00
129	436.	1.27E-10	1.37E-11	7.36E-11	0.00E+00	3.48E-08	1.07E-11	4.19E-11	2.61E-08	6.12E-08	0.00E+00
130	436.	1.48E-10	1.59E-11	8.58E-11	0.00E+00	3.48E-08	1.25E-11	4.19E-11	2.61E-08	6.12E-08	0.00E+00
131	436.	3.53E-10	3.80E-11	2.05E-10	0.00E+00	3.48E-08	2.98E-11	4.19E-11	2.62E-08	6.17E-08	0.00E+00
132	436.	1.46E-10	1.57E-11	8.47E-11	0.00E+00	3.48E-08	1.23E-11	4.19E-11	2.61E-08	6.12E-08	0.00E+00
133	436.	5.32E-10	5.76E-11	3.10E-10	0.00E+00	3.48E-08	4.51E-11	4.19E-11	2.63E-08	6.21E-08	0.00E+00
134	436.	6.71E-09	7.26E-10	3.91E-09	0.00E+00	3.48E-08	5.69E-10	4.19E-11	2.94E-08	7.62E-08	0.00E+00
135	436.	2.44E-10	2.63E-11	1.42E-10	0.00E+00	3.48E-08	2.06E-11	4.19E-11	2.61E-08	6.14E-08	0.00E+00
136	436.	2.89E-10	3.12E-11	1.68E-10	0.00E+00	3.48E-08	2.45E-11	4.19E-11	2.62E-08	6.15E-08	0.00E+00
137	436.	1.55E-10	1.68E-11	9.03E-11	0.00E+00	3.48E-08	1.32E-11	4.19E-11	2.61E-08	6.12E-08	0.00E+00
138	1090.	4.64E-10	5.03E-11	2.70E-10	0.00E+00	3.48E-08	3.94E-11	4.19E-11	2.62E-08	6.19E-08	0.00E+00
139	1090.	1.16E-09	1.25E-10	6.74E-10	0.00E+00	3.48E-08	9.82E-11	4.19E-11	2.66E-08	6.35E-08	0.00E+00
140	1090.	2.64E-10	2.85E-11	1.53E-10	0.00E+00	3.48E-08	2.23E-11	4.19E-11	2.61E-08	6.15E-08	0.00E+00
141	1090.	3.55E-10	3.84E-11	2.07E-10	0.00E+00	3.48E-08	3.01E-11	4.19E-11	2.62E-08	6.17E-08	0.00E+00
142	1090.	2.57E-10	2.77E-11	1.49E-10	0.00E+00	3.48E-08	2.17E-11	4.19E-11	2.61E-08	6.15E-08	0.00E+00
143	1090.	9.82E-10	1.06E-10	5.71E-10	0.00E+00	3.48E-08	8.31E-11	4.19E-11	2.65E-08	6.31E-08	0.00E+00
144	1090.	3.95E-10	4.26E-11	2.29E-10	0.00E+00	3.48E-08	3.34E-11	4.19E-11	2.62E-08	6.18E-08	0.00E+00
145	1090.	2.42E-10	2.61E-11	1.40E-10	0.00E+00	3.48E-08	2.05E-11	4.19E-11	2.61E-08	6.14E-08	0.00E+00
146	5378.	1.43E-10	1.55E-11	8.32E-11	0.00E+00	3.48E-08	1.21E-11	4.19E-11	2.61E-08	6.12E-08	0.00E+00
147	5378.	1.34E-10	1.45E-11	7.80E-11	0.00E+00	3.48E-08	1.13E-11	4.19E-11	2.61E-08	6.12E-08	0.00E+00
148	3578.	1.92E-10	2.07E-11	1.12E-10	0.00E+00	3.48E-08	1.62E-11	4.19E-11	2.61E-08	6.13E-08	0.00E+00
149	3860.	1.72E-10	1.86E-11	9.99E-11	0.00E+00	3.48E-08	1.45E-11	4.19E-11	2.61E-08	6.13E-08	0.00E+00
150	3860.	2.75E-10	2.97E-11	1.60E-10	0.00E+00	3.48E-08	2.32E-11	4.19E-11	2.61E-08	6.15E-08	0.00E+00
151	3860.	2.10E-10	2.27E-11	1.22E-10	0.00E+00	3.48E-08	1.78E-11	4.19E-11	2.61E-08	6.13E-08	0.00E+00
152	3860.	7.11E-10	7.68E-11	4.13E-10	0.00E+00	3.48E-08	6.02E-11	4.19E-11	2.64E-08	6.25E-08	0.00E+00
153	3860.	1.27E-09	1.38E-10	7.40E-10	0.00E+00	3.48E-08	1.08E-10	4.19E-11	2.66E-08	6.38E-08	0.00E+00
154	3073.	3.59E-10	3.87E-11	2.08E-10	0.00E+00	3.48E-08	3.04E-11	4.19E-11	2.62E-08	6.17E-08	0.00E+00
155	3073.	6.11E-10	6.60E-11	3.55E-10	0.00E+00	3.48E-08	5.17E-11	4.19E-11	2.63E-08	6.23E-08	0.00E+00
156	3073.	5.04E-10	5.44E-11	2.93E-10	0.00E+00	3.48E-08	4.27E-11	4.19E-11	2.63E-08	6.20E-08	0.00E+00
157	3073.	6.12E-10	6.60E-11	3.55E-10	0.00E+00	3.48E-08	5.17E-11	4.19E-11	2.63E-08	6.23E-08	0.00E+00
158	3073.	6.53E-10	7.08E-11	3.81E-10	0.00E+00	3.48E-08	5.55E-11	4.19E-11	2.63E-08	6.24E-08	0.00E+00
159	3073.	6.20E-10	6.70E-11	3.61E-10	0.00E+00	3.48E-08	5.25E-11	4.19E-11	2.63E-08	6.23E-08	0.00E+00
160	3073.	3.76E-10	4.05E-11	2.18E-10	0.00E+00	3.48E-08	3.17E-11	4.19E-11	2.62E-08	6.17E-08	0.00E+00
161	2808.	2.00E-10	2.17E-11	1.17E-10	0.00E+00	3.48E-08	1.70E-11	4.19E-11	2.61E-08	6.13E-08	0.00E+00
162	2808.	2.56E-10	2.77E-11	1.49E-10	0.00E+00	3.48E-08	2.17E-11	4.19E-11	2.61E-08	6.15E-08	0.00E+00
163	2808.	3.48E-10	3.77E-11	2.03E-10	0.00E+00	3.48E-08	2.95E-11	4.19E-11	2.62E-08	6.17E-08	0.00E+00
164	2808.	1.85E-10	1.99E-11	1.07E-10	0.00E+00	3.48E-08	1.56E-11	4.19E-11	2.61E-08	6.13E-08	0.00E+00
165	2808.	2.44E-10	2.63E-11	1.42E-10	0.00E+00	3.48E-08	2.06E-11	4.19E-11	2.61E-08	6.14E-08	0.00E+00
166	4574.	1.21E-10	1.31E-11	7.02E-11	0.00E+00	3.48E-08	1.02E-11	4.19E-11	2.61E-08	6.11E-08	0.00E+00
167	4574.	1.54E-10	1.67E-11	8.98E-11	0.00E+00	3.48E-08	1.31E-11	4.19E-11	2.61E-08	6.12E-08	0.00E+00
168	4574.	1.05E-10	1.13E-11	6.09E-11	0.00E+00	3.48E-08	8.86E-12	4.19E-11	2.61E-08	6.11E-08	0.00E+00
169	4574.	1.38E-10	1.49E-11	8.04E-11	0.00E+00	3.48E-08	1.17E-11	4.19E-11	2.61E-08	6.12E-08	0.00E+00

89/11/29
15:48:11

upperpal.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:23 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
170	4574.	1.21E-10	1.31E-11	7.04E-11	0.00E+00	3.48E-08	1.03E-11	4.19E-11	2.61E-08	6.11E-08	0.00E+00
171	0.	2.44E-09	2.63E-10	1.42E-09	0.00E+00	3.48E-08	2.06E-10	4.19E-11	2.72E-08	6.64E-08	0.00E+00
172	0.	2.43E-09	2.63E-10	1.41E-09	0.00E+00	3.48E-08	2.06E-10	4.19E-11	2.72E-08	6.64E-08	0.00E+00
173	0.	2.23E-09	2.40E-10	1.29E-09	0.00E+00	3.48E-08	1.88E-10	4.19E-11	2.71E-08	6.59E-08	0.00E+00
174	0.	1.60E-09	1.73E-10	9.30E-10	0.00E+00	3.48E-08	1.35E-10	4.19E-11	2.68E-08	6.45E-08	0.00E+00
175	0.	1.67E-09	1.80E-10	9.71E-10	0.00E+00	3.48E-08	1.41E-10	4.19E-11	2.69E-08	6.47E-08	0.00E+00
176	0.	1.29E-09	1.39E-10	7.49E-10	0.00E+00	3.48E-08	1.09E-10	4.19E-11	2.67E-08	6.38E-08	0.00E+00
177	0.	1.19E-09	1.29E-10	6.93E-10	0.00E+00	3.48E-08	1.01E-10	4.19E-11	2.66E-08	6.36E-08	0.00E+00
178	0.	3.76E-09	4.08E-10	2.20E-09	0.00E+00	3.48E-08	3.20E-10	4.19E-11	2.79E-08	6.95E-08	0.00E+00
179	0.	2.85E-09	3.08E-10	1.66E-09	0.00E+00	3.48E-08	2.41E-10	4.19E-11	2.74E-08	6.74E-08	0.00E+00
180	0.	2.83E-09	3.06E-10	1.65E-09	0.00E+00	3.48E-08	2.40E-10	4.19E-11	2.74E-08	6.73E-08	0.00E+00
181	0.	2.50E-09	2.70E-10	1.45E-09	0.00E+00	3.48E-08	2.11E-10	4.19E-11	2.73E-08	6.66E-08	0.00E+00
182	0.	4.73E-09	5.10E-10	2.74E-09	0.00E+00	3.48E-08	3.99E-10	4.19E-11	2.84E-08	7.16E-08	0.00E+00
183	0.	6.60E-09	7.08E-10	3.81E-09	0.00E+00	3.48E-08	5.55E-10	4.19E-11	2.93E-08	7.59E-08	0.00E+00
184	0.	8.08E-09	8.72E-10	4.70E-09	0.00E+00	3.48E-08	6.84E-10	4.19E-11	3.01E-08	7.93E-08	0.00E+00
185	0.	9.43E-09	1.02E-09	5.48E-09	0.00E+00	3.48E-08	7.98E-10	4.19E-11	3.08E-08	8.24E-08	0.00E+00
186	0.	9.43E-09	1.02E-09	5.50E-09	0.00E+00	3.48E-08	8.01E-10	4.19E-11	3.08E-08	8.24E-08	0.00E+00
187	0.	3.25E-08	3.49E-09	1.88E-08	0.00E+00	3.48E-08	2.73E-09	4.19E-11	4.24E-08	1.35E-07	0.00E+00
188	0.	3.23E-08	3.49E-09	1.88E-08	0.00E+00	3.48E-08	2.73E-09	4.19E-11	4.24E-08	1.35E-07	0.00E+00
189	0.	2.44E-08	2.63E-09	1.41E-08	0.00E+00	3.48E-08	2.06E-09	4.19E-11	3.83E-08	1.16E-07	0.00E+00
190	0.	1.97E-08	2.13E-09	1.14E-08	0.00E+00	3.48E-08	1.67E-09	4.19E-11	3.60E-08	1.06E-07	0.00E+00
191	0.	1.70E-08	1.84E-09	9.88E-09	0.00E+00	3.48E-08	1.44E-09	4.19E-11	3.46E-08	9.96E-08	0.00E+00
192	0.	3.23E-08	3.48E-09	1.87E-08	0.00E+00	3.48E-08	2.72E-09	4.19E-11	4.23E-08	1.34E-07	0.00E+00
193	0.	3.21E-08	3.46E-09	1.86E-08	0.00E+00	3.48E-08	2.71E-09	4.19E-11	4.22E-08	1.34E-07	0.00E+00
194	0.	2.11E-08	2.28E-09	1.22E-08	0.00E+00	3.48E-08	1.78E-09	4.19E-11	3.67E-08	1.09E-07	0.00E+00
195	0.	1.71E-08	1.84E-09	9.90E-09	0.00E+00	3.48E-08	1.44E-09	4.19E-11	3.46E-08	9.97E-08	0.00E+00
196	0.	1.41E-08	1.51E-09	8.13E-09	0.00E+00	3.48E-08	1.18E-09	4.19E-11	3.31E-08	9.29E-08	0.00E+00
197	0.	2.52E-08	2.72E-09	1.47E-08	0.00E+00	3.48E-08	2.13E-09	4.19E-11	3.88E-08	1.18E-07	0.00E+00
198	0.	2.25E-08	2.43E-09	1.31E-08	0.00E+00	3.48E-08	1.90E-09	4.19E-11	3.74E-08	1.12E-07	0.00E+00
199	0.	1.82E-08	1.97E-09	1.06E-08	0.00E+00	3.48E-08	1.54E-09	4.19E-11	3.53E-08	1.02E-07	0.00E+00
200	0.	1.44E-08	1.56E-09	8.38E-09	0.00E+00	3.48E-08	1.22E-09	4.19E-11	3.33E-08	9.37E-08	0.00E+00
201	0.	2.95E-09	3.16E-10	1.70E-09	0.00E+00	3.48E-08	2.47E-10	4.19E-11	2.75E-08	6.76E-08	0.00E+00
202	0.	1.25E-08	1.35E-09	7.25E-09	0.00E+00	3.48E-08	1.06E-09	4.19E-11	3.23E-08	8.93E-08	0.00E+00
203	0.	1.89E-08	2.04E-09	1.10E-08	0.00E+00	3.48E-08	1.60E-09	4.19E-11	3.56E-08	1.04E-07	0.00E+00
204	0.	1.70E-08	1.84E-09	9.90E-09	0.00E+00	3.48E-08	1.44E-09	4.19E-11	3.46E-08	9.97E-08	0.00E+00
205	0.	1.40E-08	1.51E-09	8.13E-09	0.00E+00	3.48E-08	1.18E-09	4.19E-11	3.31E-08	9.27E-08	0.00E+00
										TOTAL BURDEN =	0.00E+00

10/11/79
15:49:11

upperpal.out

39

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:23 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
1	0.	4.47E-09	4.22E-10	2.18E-09	0.00E+00	1.47E-08	2.71E-10	4.19E-11	3.00E-08	5.20E-08	0.00E+00
2	0.	1.85E-09	1.74E-10	8.99E-10	0.00E+00	1.47E-08	1.12E-10	4.19E-11	2.73E-08	4.51E-08	0.00E+00
3	0.	2.15E-09	2.03E-10	1.05E-09	0.00E+00	1.47E-08	1.30E-10	4.19E-11	2.76E-08	4.59E-08	0.00E+00
4	0.	3.02E-09	2.86E-10	1.47E-09	0.00E+00	1.47E-08	1.83E-10	4.19E-11	2.85E-08	4.82E-08	0.00E+00
5	0.	2.76E-09	2.61E-10	1.34E-09	0.00E+00	1.47E-08	1.67E-10	4.19E-11	2.83E-08	4.75E-08	0.00E+00
6	0.	2.05E-09	1.94E-10	1.00E-09	0.00E+00	1.47E-08	1.25E-10	4.19E-11	2.76E-08	4.56E-08	0.00E+00
7	0.	1.52E-09	1.44E-10	7.43E-10	0.00E+00	1.47E-08	9.26E-11	4.19E-11	2.70E-08	4.42E-08	0.00E+00
8	0.	1.18E-09	1.12E-10	5.78E-10	0.00E+00	1.47E-08	7.20E-11	4.19E-11	2.67E-08	4.33E-08	0.00E+00
9	0.	9.46E-10	8.97E-11	4.63E-10	0.00E+00	1.47E-08	5.77E-11	4.19E-11	2.64E-08	4.27E-08	0.00E+00
10	0.	3.08E-10	2.20E-11	1.14E-10	0.00E+00	1.47E-08	1.41E-11	4.19E-11	2.57E-08	4.09E-08	0.00E+00
11	0.	1.12E-08	1.05E-09	5.39E-09	0.00E+00	1.47E-08	6.72E-10	4.19E-11	3.66E-08	6.96E-08	0.00E+00
12	0.	1.10E-08	1.04E-09	5.37E-09	0.00E+00	1.47E-08	6.68E-10	4.19E-11	3.65E-08	6.93E-08	0.00E+00
13	0.	6.67E-09	6.33E-10	3.26E-09	0.00E+00	1.47E-08	4.07E-10	4.19E-11	3.22E-08	5.79E-08	0.00E+00
14	0.	5.06E-09	4.79E-10	2.47E-09	0.00E+00	1.47E-08	3.08E-10	4.19E-11	3.06E-08	5.36E-08	0.00E+00
15	0.	3.27E-09	3.10E-10	1.60E-09	0.00E+00	1.47E-08	1.99E-10	4.19E-11	2.88E-08	4.89E-08	0.00E+00
16	0.	2.16E-09	2.04E-10	1.05E-09	0.00E+00	1.47E-08	1.31E-10	4.19E-11	2.77E-08	4.59E-08	0.00E+00
17	0.	1.52E-09	1.44E-10	7.43E-10	0.00E+00	1.47E-08	9.26E-11	4.19E-11	2.70E-08	4.42E-08	0.00E+00
18	0.	1.12E-09	1.06E-10	5.49E-10	0.00E+00	1.47E-08	6.83E-11	4.19E-11	2.66E-08	4.32E-08	0.00E+00
19	0.	1.66E-10	1.51E-11	7.77E-11	0.00E+00	1.47E-08	9.68E-12	4.19E-11	2.57E-08	4.06E-08	0.00E+00
20	0.	4.09E-10	3.80E-11	1.96E-10	0.00E+00	1.47E-08	2.44E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
21	0.	6.52E-09	6.16E-10	3.18E-09	0.00E+00	1.47E-08	3.96E-10	4.19E-11	3.20E-08	5.74E-08	0.00E+00
22	0.	5.60E-09	5.29E-10	2.73E-09	0.00E+00	1.47E-08	3.40E-10	4.19E-11	3.11E-08	5.50E-08	0.00E+00
23	0.	4.51E-09	4.26E-10	2.20E-09	0.00E+00	1.47E-08	2.74E-10	4.19E-11	3.00E-08	5.21E-08	0.00E+00
24	0.	3.87E-09	3.67E-10	1.89E-09	0.00E+00	1.47E-08	2.36E-10	4.19E-11	2.94E-08	5.05E-08	0.00E+00
25	0.	2.41E-09	2.28E-10	1.18E-09	0.00E+00	1.47E-08	1.46E-10	4.19E-11	2.79E-08	4.66E-08	0.00E+00
26	0.	1.78E-09	1.69E-10	8.72E-10	0.00E+00	1.47E-08	1.09E-10	4.19E-11	2.73E-08	4.49E-08	0.00E+00
27	0.	1.33E-09	1.26E-10	6.51E-10	0.00E+00	1.47E-08	8.11E-11	4.19E-11	2.68E-08	4.37E-08	0.00E+00
28	0.	1.45E-10	1.35E-11	6.96E-11	0.00E+00	1.47E-08	8.67E-12	4.19E-11	2.56E-08	4.06E-08	0.00E+00
29	0.	2.53E-10	2.37E-11	1.22E-10	0.00E+00	1.47E-08	1.52E-11	4.19E-11	2.57E-08	4.09E-08	0.00E+00
30	0.	9.78E-10	9.21E-11	4.75E-10	0.00E+00	1.47E-08	5.92E-11	4.19E-11	2.65E-08	4.28E-08	0.00E+00
31	0.	4.02E-09	3.79E-10	1.95E-09	0.00E+00	1.47E-08	2.43E-10	4.19E-11	2.95E-08	5.08E-08	0.00E+00
32	0.	4.62E-09	4.38E-10	2.26E-09	0.00E+00	1.47E-08	2.81E-10	4.19E-11	3.01E-08	5.24E-08	0.00E+00
33	0.	4.15E-09	3.94E-10	2.03E-09	0.00E+00	1.47E-08	2.53E-10	4.19E-11	2.97E-08	5.12E-08	0.00E+00
34	0.	2.85E-09	2.69E-10	1.39E-09	0.00E+00	1.47E-08	1.73E-10	4.19E-11	2.83E-08	4.77E-08	0.00E+00
35	0.	1.96E-09	1.86E-10	9.60E-10	0.00E+00	1.47E-08	1.20E-10	4.19E-11	2.75E-08	4.54E-08	0.00E+00
36	0.	1.44E-09	1.36E-10	7.03E-10	0.00E+00	1.47E-08	8.75E-11	4.19E-11	2.69E-08	4.40E-08	0.00E+00
37	0.	1.56E-10	1.45E-11	7.50E-11	0.00E+00	1.47E-08	9.34E-12	4.19E-11	2.56E-08	4.06E-08	0.00E+00
38	0.	2.63E-10	2.48E-11	1.28E-10	0.00E+00	1.47E-08	1.59E-11	4.19E-11	2.58E-08	4.09E-08	0.00E+00
39	0.	4.56E-10	4.31E-11	2.22E-10	0.00E+00	1.47E-08	2.77E-11	4.19E-11	2.59E-08	4.14E-08	0.00E+00
40	0.	1.70E-09	1.61E-10	8.31E-10	0.00E+00	1.47E-08	1.04E-10	4.19E-11	2.72E-08	4.47E-08	0.00E+00
41	0.	3.60E-09	3.42E-10	1.76E-09	0.00E+00	1.47E-08	2.20E-10	4.19E-11	2.91E-08	4.97E-08	0.00E+00
42	0.	4.37E-09	4.14E-10	2.14E-09	0.00E+00	1.47E-08	2.66E-10	4.19E-11	2.99E-08	5.18E-08	0.00E+00
43	0.	2.85E-09	2.71E-10	1.40E-09	0.00E+00	1.47E-08	1.74E-10	4.19E-11	2.84E-08	4.78E-08	0.00E+00
44	0.	2.17E-09	2.06E-10	1.06E-09	0.00E+00	1.47E-08	1.32E-10	4.19E-11	2.77E-08	4.59E-08	0.00E+00
45	0.	1.60E-09	1.52E-10	7.84E-10	0.00E+00	1.47E-08	9.76E-11	4.19E-11	2.71E-08	4.44E-08	0.00E+00
46	0.	1.57E-10	1.47E-11	7.57E-11	0.00E+00	1.47E-08	9.43E-12	4.19E-11	2.56E-08	4.06E-08	0.00E+00
47	0.	2.74E-10	2.58E-11	1.33E-10	0.00E+00	1.47E-08	1.66E-11	4.19E-11	2.58E-08	4.09E-08	0.00E+00
48	0.	4.08E-10	3.84E-11	1.98E-10	0.00E+00	1.47E-08	2.47E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
49	0.	1.07E-09	1.01E-10	5.20E-10	0.00E+00	1.47E-08	6.48E-11	4.19E-11	2.66E-08	4.30E-08	0.00E+00
50	0.	2.52E-09	2.38E-10	1.23E-09	0.00E+00	1.47E-08	1.53E-10	4.19E-11	2.80E-08	4.69E-08	0.00E+00
51	0.	4.01E-09	3.81E-10	1.97E-09	0.00E+00	1.47E-08	2.45E-10	4.19E-11	2.95E-08	5.08E-08	0.00E+00
52	0.	2.62E-09	2.48E-10	1.28E-09	0.00E+00	1.47E-08	1.59E-10	4.19E-11	2.81E-08	4.71E-08	0.00E+00
53	0.	2.17E-09	2.06E-10	1.06E-09	0.00E+00	1.47E-08	1.32E-10	4.19E-11	2.77E-08	4.59E-08	0.00E+00
54	0.	1.68E-09	1.59E-10	8.18E-10	0.00E+00	1.47E-08	1.02E-10	4.19E-11	2.72E-08	4.46E-08	0.00E+00
55	0.	1.75E-10	1.65E-11	8.51E-11	0.00E+00	1.47E-08	1.06E-11	4.19E-11	2.57E-08	4.07E-08	0.00E+00

09/11/29
15:49:21

upperpal.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:23 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
56	0.	2.57E-10	2.42E-11	1.25E-10	0.00E+00	1.47E-08	1.56E-11	4.19E-11	2.57E-08	4.09E-08	0.00E+00
57	0.	3.80E-10	3.58E-11	1.84E-10	0.00E+00	1.47E-08	2.30E-11	4.19E-11	2.59E-08	4.12E-08	0.00E+00
58	0.	7.06E-10	6.69E-11	3.45E-10	0.00E+00	1.47E-08	4.30E-11	4.19E-11	2.62E-08	4.21E-08	0.00E+00
59	0.	1.55E-09	1.47E-10	7.57E-10	0.00E+00	1.47E-08	9.43E-11	4.19E-11	2.71E-08	4.43E-08	0.00E+00
60	0.	2.67E-09	2.53E-10	1.30E-09	0.00E+00	1.47E-08	1.62E-10	4.19E-11	2.82E-08	4.73E-08	0.00E+00
61	0.	2.02E-09	1.91E-10	9.87E-10	0.00E+00	1.47E-08	1.23E-10	4.19E-11	2.75E-08	4.55E-08	0.00E+00
62	0.	1.86E-09	1.76E-10	9.06E-10	0.00E+00	1.47E-08	1.13E-10	4.19E-11	2.74E-08	4.51E-08	0.00E+00
63	0.	1.65E-09	1.56E-10	8.04E-10	0.00E+00	1.47E-08	1.00E-10	4.19E-11	2.71E-08	4.46E-08	0.00E+00
64	0.	1.21E-09	1.15E-10	5.92E-10	0.00E+00	1.47E-08	7.37E-11	4.19E-11	2.67E-08	4.34E-08	0.00E+00
65	0.	2.86E-10	2.70E-11	1.39E-10	0.00E+00	1.47E-08	1.73E-11	4.19E-11	2.58E-08	4.09E-08	0.00E+00
66	0.	2.99E-10	2.82E-11	1.45E-10	0.00E+00	1.47E-08	1.81E-11	4.19E-11	2.58E-08	4.10E-08	0.00E+00
67	0.	3.30E-10	3.12E-11	1.61E-10	0.00E+00	1.47E-08	2.00E-11	4.19E-11	2.58E-08	4.11E-08	0.00E+00
68	0.	3.52E-10	3.34E-11	1.72E-10	0.00E+00	1.47E-08	2.15E-11	4.19E-11	2.58E-08	4.11E-08	0.00E+00
69	0.	3.60E-10	3.39E-11	1.75E-10	0.00E+00	1.47E-08	2.18E-11	4.19E-11	2.59E-08	4.11E-08	0.00E+00
70	0.	3.52E-10	3.33E-11	1.72E-10	0.00E+00	1.47E-08	2.14E-11	4.19E-11	2.58E-08	4.11E-08	0.00E+00
71	0.	3.38E-10	3.20E-11	1.65E-10	0.00E+00	1.47E-08	2.05E-11	4.19E-11	2.58E-08	4.11E-08	0.00E+00
72	0.	3.13E-10	2.96E-11	1.53E-10	0.00E+00	1.47E-08	1.90E-11	4.19E-11	2.58E-08	4.10E-08	0.00E+00
73	0.	2.94E-10	2.78E-11	1.43E-10	0.00E+00	1.47E-08	1.78E-11	4.19E-11	2.58E-08	4.10E-08	0.00E+00
74	0.	2.28E-10	2.16E-11	1.12E-10	0.00E+00	1.47E-08	1.39E-11	4.19E-11	2.57E-08	4.08E-08	0.00E+00
75	0.	1.75E-10	1.65E-11	8.51E-11	0.00E+00	1.47E-08	1.06E-11	4.19E-11	2.57E-08	4.07E-08	0.00E+00
76	0.	1.90E-10	1.79E-11	9.26E-11	0.00E+00	1.47E-08	1.15E-11	4.19E-11	2.57E-08	4.07E-08	0.00E+00
77	0.	2.10E-10	1.98E-11	1.02E-10	0.00E+00	1.47E-08	1.27E-11	4.19E-11	2.57E-08	4.07E-08	0.00E+00
78	0.	2.53E-10	2.38E-11	1.23E-10	0.00E+00	1.47E-08	1.53E-11	4.19E-11	2.57E-08	4.09E-08	0.00E+00
79	0.	3.09E-10	2.91E-11	1.50E-10	0.00E+00	1.47E-08	1.87E-11	4.19E-11	2.58E-08	4.10E-08	0.00E+00
80	0.	3.53E-10	3.34E-11	1.72E-10	0.00E+00	1.47E-08	2.15E-11	4.19E-11	2.58E-08	4.11E-08	0.00E+00
81	0.	3.90E-10	3.67E-11	1.89E-10	0.00E+00	1.47E-08	2.36E-11	4.19E-11	2.59E-08	4.12E-08	0.00E+00
82	0.	4.29E-10	4.03E-11	2.08E-10	0.00E+00	1.47E-08	2.59E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
83	0.	4.49E-10	4.22E-11	2.18E-10	0.00E+00	1.47E-08	2.71E-11	4.19E-11	2.59E-08	4.14E-08	0.00E+00
84	0.	4.29E-10	4.03E-11	2.08E-10	0.00E+00	1.47E-08	2.59E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
85	0.	4.35E-10	4.09E-11	2.11E-10	0.00E+00	1.47E-08	2.63E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
86	0.	4.07E-10	3.81E-11	1.97E-10	0.00E+00	1.47E-08	2.45E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
87	0.	4.12E-10	3.86E-11	1.99E-10	0.00E+00	1.47E-08	2.48E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
88	0.	4.20E-10	3.96E-11	2.04E-10	0.00E+00	1.47E-08	2.54E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
89	0.	4.45E-10	4.19E-11	2.16E-10	0.00E+00	1.47E-08	2.69E-11	4.19E-11	2.59E-08	4.14E-08	0.00E+00
90	0.	4.41E-10	4.18E-11	2.16E-10	0.00E+00	1.47E-08	2.68E-11	4.19E-11	2.59E-08	4.14E-08	0.00E+00
91	0.	1.80E-10	1.70E-11	8.79E-11	0.00E+00	1.47E-08	1.09E-11	4.19E-11	2.57E-08	4.07E-08	0.00E+00
92	0.	2.16E-10	2.03E-11	1.05E-10	0.00E+00	1.47E-08	1.30E-11	4.19E-11	2.57E-08	4.08E-08	0.00E+00
93	0.	3.05E-10	2.87E-11	1.48E-10	0.00E+00	1.47E-08	1.84E-11	4.19E-11	2.58E-08	4.10E-08	0.00E+00
94	0.	3.61E-10	3.41E-11	1.76E-10	0.00E+00	1.47E-08	2.19E-11	4.19E-11	2.59E-08	4.11E-08	0.00E+00
95	0.	4.36E-10	4.11E-11	2.12E-10	0.00E+00	1.47E-08	2.64E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
96	0.	4.53E-10	4.28E-11	2.21E-10	0.00E+00	1.47E-08	2.75E-11	4.19E-11	2.59E-08	4.14E-08	0.00E+00
97	0.	4.53E-10	4.28E-11	2.21E-10	0.00E+00	1.47E-08	2.75E-11	4.19E-11	2.59E-08	4.14E-08	0.00E+00
98	0.	3.72E-10	3.50E-11	1.80E-10	0.00E+00	1.47E-08	2.25E-11	4.19E-11	2.59E-08	4.12E-08	0.00E+00
99	0.	3.50E-10	3.30E-11	1.70E-10	0.00E+00	1.47E-08	2.12E-11	4.19E-11	2.58E-08	4.11E-08	0.00E+00
100	0.	3.25E-10	3.05E-11	1.57E-10	0.00E+00	1.47E-08	1.96E-11	4.19E-11	2.58E-08	4.10E-08	0.00E+00
101	0.	3.83E-10	3.63E-11	1.87E-10	0.00E+00	1.47E-08	2.33E-11	4.19E-11	2.59E-08	4.12E-08	0.00E+00
102	0.	4.27E-10	4.05E-11	2.09E-10	0.00E+00	1.47E-08	2.60E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
103	0.	5.10E-10	4.81E-11	2.48E-10	0.00E+00	1.47E-08	3.09E-11	4.19E-11	2.60E-08	4.15E-08	0.00E+00
104	0.	6.16E-10	5.83E-11	3.01E-10	0.00E+00	1.47E-08	3.75E-11	4.19E-11	2.61E-08	4.18E-08	0.00E+00
105	0.	7.65E-10	7.22E-11	3.72E-10	0.00E+00	1.47E-08	4.64E-11	4.19E-11	2.63E-08	4.22E-08	0.00E+00
106	0.	9.18E-10	8.67E-11	4.47E-10	0.00E+00	1.47E-08	5.57E-11	4.19E-11	2.64E-08	4.26E-08	0.00E+00
107	0.	1.36E-09	1.28E-10	6.62E-10	0.00E+00	1.47E-08	8.24E-11	4.19E-11	2.69E-08	4.38E-08	0.00E+00
108	0.	2.23E-09	2.11E-10	1.09E-09	0.00E+00	1.47E-08	1.36E-10	4.19E-11	2.77E-08	4.61E-08	0.00E+00
109	0.	2.53E-09	2.40E-10	1.24E-09	0.00E+00	1.47E-08	1.54E-10	4.19E-11	2.80E-08	4.69E-08	0.00E+00
110	0.	2.03E-09	1.93E-10	9.93E-10	0.00E+00	1.47E-08	1.24E-10	4.19E-11	2.75E-08	4.56E-08	0.00E+00
111	0.	1.29E-09	1.22E-10	6.29E-10	0.00E+00	1.47E-08	7.84E-11	4.19E-11	2.68E-08	4.36E-08	0.00E+00
112	0.	1.47E-09	1.39E-10	7.16E-10	0.00E+00	1.47E-08	8.92E-11	4.19E-11	2.70E-08	4.41E-08	0.00E+00

89/11/29
15:49:21

upperepal.out

41

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:23 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
113	0.	1.19E-09	1.13E-10	5.81E-10	0.00E+00	1.47E-08	7.23E-11	4.19E-11	2.67E-08	4.33E-08	0.00E+00
114	0.	9.55E-10	9.04E-11	4.66E-10	0.00E+00	1.47E-08	5.81E-11	4.19E-11	2.65E-08	4.27E-08	0.00E+00
115	0.	4.10E-10	3.86E-11	1.99E-10	0.00E+00	1.47E-08	2.48E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
116	0.	4.36E-10	4.15E-11	2.14E-10	0.00E+00	1.47E-08	2.67E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
117	0.	4.96E-10	4.68E-11	2.41E-10	0.00E+00	1.47E-08	3.00E-11	4.19E-11	2.60E-08	4.15E-08	0.00E+00
118	0.	5.85E-10	5.52E-11	2.85E-10	0.00E+00	1.47E-08	3.54E-11	4.19E-11	2.61E-08	4.17E-08	0.00E+00
119	0.	7.89E-10	7.45E-11	3.85E-10	0.00E+00	1.47E-08	4.79E-11	4.19E-11	2.63E-08	4.23E-08	0.00E+00
120	0.	1.08E-09	1.02E-10	5.28E-10	0.00E+00	1.47E-08	6.57E-11	4.19E-11	2.66E-08	4.31E-08	0.00E+00
121	0.	1.19E-09	1.13E-10	5.81E-10	0.00E+00	1.47E-08	7.23E-11	4.19E-11	2.67E-08	4.33E-08	0.00E+00
122	0.	1.28E-09	1.21E-10	6.23E-10	0.00E+00	1.47E-08	7.76E-11	4.19E-11	2.68E-08	4.36E-08	0.00E+00
123	0.	1.43E-09	1.35E-10	6.96E-10	0.00E+00	1.47E-08	8.67E-11	4.19E-11	2.69E-08	4.40E-08	0.00E+00
124	0.	1.85E-09	1.74E-10	8.99E-10	0.00E+00	1.47E-08	1.12E-10	4.19E-11	2.73E-08	4.51E-08	0.00E+00
125	0.	1.29E-09	1.22E-10	6.31E-10	0.00E+00	1.47E-08	7.86E-11	4.19E-11	2.68E-08	4.36E-08	0.00E+00
126	0.	8.64E-10	8.16E-11	4.21E-10	0.00E+00	1.47E-08	5.24E-11	4.19E-11	2.64E-08	4.25E-08	0.00E+00
127	0.	5.65E-10	5.33E-11	2.75E-10	0.00E+00	1.47E-08	3.43E-11	4.19E-11	2.61E-08	4.17E-08	0.00E+00
128	0.	3.87E-10	3.68E-11	1.90E-10	0.00E+00	1.47E-08	2.37E-11	4.19E-11	2.59E-08	4.12E-08	0.00E+00
129	436.	5.43E-11	5.14E-12	2.65E-11	0.00E+00	1.47E-08	3.30E-12	4.19E-11	2.55E-08	4.03E-08	0.00E+00
130	436.	6.34E-11	5.99E-12	3.09E-11	0.00E+00	1.47E-08	3.85E-12	4.19E-11	2.56E-08	4.04E-08	0.00E+00
131	436.	1.51E-10	1.43E-11	7.37E-11	0.00E+00	1.47E-08	9.17E-12	4.19E-11	2.56E-08	4.04E-08	0.00E+00
132	436.	6.25E-11	5.91E-12	3.05E-11	0.00E+00	1.47E-08	3.80E-12	4.19E-11	2.56E-08	4.04E-08	0.00E+00
133	436.	2.28E-10	2.16E-11	1.12E-10	0.00E+00	1.47E-08	1.39E-11	4.19E-11	2.57E-08	4.08E-08	0.00E+00
134	436.	2.88E-09	2.72E-10	1.41E-09	0.00E+00	1.47E-08	1.75E-10	4.19E-11	2.84E-08	4.78E-08	0.00E+00
135	436.	1.04E-10	9.88E-12	5.10E-11	0.00E+00	1.47E-08	6.35E-12	4.19E-11	2.56E-08	4.05E-08	0.00E+00
136	436.	1.24E-10	1.17E-11	6.05E-11	0.00E+00	1.47E-08	7.53E-12	4.19E-11	2.56E-08	4.05E-08	0.00E+00
137	436.	6.64E-11	6.30E-12	3.25E-11	0.00E+00	1.47E-08	4.05E-12	4.19E-11	2.56E-08	4.04E-08	0.00E+00
138	1090.	1.99E-10	1.89E-11	9.73E-11	0.00E+00	1.47E-08	1.21E-11	4.19E-11	2.57E-08	4.07E-08	0.00E+00
139	1090.	4.95E-10	4.70E-11	2.43E-10	0.00E+00	1.47E-08	3.02E-11	4.19E-11	2.60E-08	4.15E-08	0.00E+00
140	1090.	1.13E-10	1.07E-11	5.52E-11	0.00E+00	1.47E-08	6.88E-12	4.19E-11	2.56E-08	4.05E-08	0.00E+00
141	1090.	1.52E-10	1.44E-11	7.43E-11	0.00E+00	1.47E-08	9.26E-12	4.19E-11	2.56E-08	4.06E-08	0.00E+00
142	1090.	1.10E-10	1.04E-11	5.36E-11	0.00E+00	1.47E-08	6.67E-12	4.19E-11	2.56E-08	4.05E-08	0.00E+00
143	1090.	4.21E-10	3.98E-11	2.05E-10	0.00E+00	1.47E-08	2.56E-11	4.19E-11	2.59E-08	4.13E-08	0.00E+00
144	1090.	1.69E-10	1.60E-11	8.24E-11	0.00E+00	1.47E-08	1.03E-11	4.19E-11	2.57E-08	4.06E-08	0.00E+00
145	1090.	1.04E-10	9.80E-12	5.05E-11	0.00E+00	1.47E-08	6.30E-12	4.19E-11	2.56E-08	4.05E-08	0.00E+00
146	5378.	6.12E-11	5.80E-12	2.99E-11	0.00E+00	1.47E-08	3.73E-12	4.19E-11	2.56E-08	4.04E-08	0.00E+00
147	5378.	5.76E-11	5.44E-12	2.80E-11	0.00E+00	1.47E-08	3.49E-12	4.19E-11	2.55E-08	4.03E-08	0.00E+00
148	3578.	8.23E-11	7.78E-12	4.01E-11	0.00E+00	1.47E-08	5.00E-12	4.19E-11	2.56E-08	4.04E-08	0.00E+00
149	3860.	7.37E-11	6.97E-12	3.60E-11	0.00E+00	1.47E-08	4.48E-12	4.19E-11	2.56E-08	4.04E-08	0.00E+00
150	3860.	1.18E-10	1.11E-11	5.74E-11	0.00E+00	1.47E-08	7.15E-12	4.19E-11	2.56E-08	4.05E-08	0.00E+00
151	3860.	9.00E-11	8.52E-12	4.39E-11	0.00E+00	1.47E-08	5.47E-12	4.19E-11	2.56E-08	4.04E-08	0.00E+00
152	3860.	3.05E-10	2.88E-11	1.49E-10	0.00E+00	1.47E-08	1.85E-11	4.19E-11	2.58E-08	4.10E-08	0.00E+00
153	3860.	5.46E-10	5.16E-11	2.66E-10	0.00E+00	1.47E-08	3.32E-11	4.19E-11	2.60E-08	4.16E-08	0.00E+00
154	3073.	1.54E-10	1.45E-11	7.50E-11	0.00E+00	1.47E-08	9.34E-12	4.19E-11	2.56E-08	4.06E-08	0.00E+00
155	3073.	2.62E-10	2.48E-11	1.28E-10	0.00E+00	1.47E-08	1.59E-11	4.19E-11	2.58E-08	4.09E-08	0.00E+00
156	3073.	2.16E-10	2.04E-11	1.05E-10	0.00E+00	1.47E-08	1.31E-11	4.19E-11	2.57E-08	4.08E-08	0.00E+00
157	3073.	2.62E-10	2.48E-11	1.28E-10	0.00E+00	1.47E-08	1.59E-11	4.19E-11	2.58E-08	4.09E-08	0.00E+00
158	3073.	2.80E-10	2.66E-11	1.37E-10	0.00E+00	1.47E-08	1.71E-11	4.19E-11	2.58E-08	4.09E-08	0.00E+00
159	3073.	2.66E-10	2.52E-11	1.30E-10	0.00E+00	1.47E-08	1.62E-11	4.19E-11	2.58E-08	4.09E-08	0.00E+00
160	3073.	1.61E-10	1.52E-11	7.84E-11	0.00E+00	1.47E-08	9.76E-12	4.19E-11	2.57E-08	4.06E-08	0.00E+00
161	2808.	8.58E-11	8.14E-12	4.20E-11	0.00E+00	1.47E-08	5.23E-12	4.19E-11	2.56E-08	4.04E-08	0.00E+00
162	2808.	1.10E-10	1.04E-11	5.37E-11	0.00E+00	1.47E-08	6.68E-12	4.19E-11	2.56E-08	4.05E-08	0.00E+00
163	2808.	1.49E-10	1.41E-11	7.30E-11	0.00E+00	1.47E-08	9.09E-12	4.19E-11	2.56E-08	4.06E-08	0.00E+00
164	2808.	7.92E-11	7.48E-12	3.86E-11	0.00E+00	1.47E-08	4.81E-12	4.19E-11	2.56E-08	4.04E-08	0.00E+00
165	2808.	1.04E-10	9.89E-12	5.10E-11	0.00E+00	1.47E-08	6.35E-12	4.19E-11	2.56E-08	4.05E-08	0.00E+00
166	4574.	5.18E-11	4.90E-12	2.53E-11	0.00E+00	1.47E-08	3.15E-12	4.19E-11	2.55E-08	4.03E-08	0.00E+00
167	4574.	6.62E-11	6.26E-12	3.23E-11	0.00E+00	1.47E-08	4.02E-12	4.19E-11	2.56E-08	4.04E-08	0.00E+00
168	4574.	4.48E-11	4.24E-12	2.19E-11	0.00E+00	1.47E-08	2.73E-12	4.19E-11	2.55E-08	4.03E-08	0.00E+00
169	4574.	5.92E-11	5.61E-12	2.89E-11	0.00E+00	1.47E-08	3.60E-12	4.19E-11	2.56E-08	4.03E-08	0.00E+00

89/11/79
15:49:21

upperpal.out

42

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-29-1989 TIME: 15:47:24 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
170	4574.	5.18E-11	4.91E-12	2.53E-11	0.00E+00	1.47E-08	3.16E-12	4.19E-11	2.55E-08	4.03E-08	0.00E+00
171	0.	1.04E-09	9.89E-11	5.10E-10	0.00E+00	1.47E-08	6.35E-11	4.19E-11	2.65E-08	4.30E-08	0.00E+00
172	0.	1.04E-09	9.86E-11	5.09E-10	0.00E+00	1.47E-08	6.34E-11	4.19E-11	2.65E-08	4.30E-08	0.00E+00
173	0.	9.55E-10	9.03E-11	4.66E-10	0.00E+00	1.47E-08	5.80E-11	4.19E-11	2.65E-08	4.27E-08	0.00E+00
174	0.	6.86E-10	6.48E-11	3.35E-10	0.00E+00	1.47E-08	4.17E-11	4.19E-11	2.62E-08	4.20E-08	0.00E+00
175	0.	7.17E-10	6.77E-11	3.49E-10	0.00E+00	1.47E-08	4.35E-11	4.19E-11	2.62E-08	4.21E-08	0.00E+00
176	0.	5.51E-10	5.23E-11	2.70E-10	0.00E+00	1.47E-08	3.36E-11	4.19E-11	2.60E-08	4.16E-08	0.00E+00
177	0.	5.12E-10	4.83E-11	2.49E-10	0.00E+00	1.47E-08	3.11E-11	4.19E-11	2.60E-08	4.15E-08	0.00E+00
178	0.	1.61E-09	1.53E-10	7.91E-10	0.00E+00	1.47E-08	9.85E-11	4.19E-11	2.71E-08	4.45E-08	0.00E+00
179	0.	1.22E-09	1.16E-10	5.97E-10	0.00E+00	1.47E-08	7.43E-11	4.19E-11	2.67E-08	4.34E-08	0.00E+00
180	0.	1.21E-09	1.15E-10	5.93E-10	0.00E+00	1.47E-08	7.38E-11	4.19E-11	2.67E-08	4.34E-08	0.00E+00
181	0.	1.07E-09	1.01E-10	5.22E-10	0.00E+00	1.47E-08	6.51E-11	4.19E-11	2.66E-08	4.30E-08	0.00E+00
182	0.	2.03E-09	1.91E-10	9.87E-10	0.00E+00	1.47E-08	1.23E-10	4.19E-11	2.75E-08	4.55E-08	0.00E+00
183	0.	2.83E-09	2.66E-10	1.37E-09	0.00E+00	1.47E-08	1.71E-10	4.19E-11	2.83E-08	4.77E-08	0.00E+00
184	0.	3.46E-09	3.28E-10	1.69E-09	0.00E+00	1.47E-08	2.10E-10	4.19E-11	2.90E-08	4.94E-08	0.00E+00
185	0.	4.04E-09	3.83E-10	1.97E-09	0.00E+00	1.47E-08	2.46E-10	4.19E-11	2.96E-08	5.09E-08	0.00E+00
186	0.	4.04E-09	3.84E-10	1.98E-09	0.00E+00	1.47E-08	2.47E-10	4.19E-11	2.96E-08	5.09E-08	0.00E+00
187	0.	1.39E-08	1.31E-09	6.76E-09	0.00E+00	1.47E-08	8.42E-10	4.19E-11	3.94E-08	7.70E-08	0.00E+00
188	0.	1.39E-08	1.31E-09	6.76E-09	0.00E+00	1.47E-08	8.42E-10	4.19E-11	3.94E-08	7.69E-08	0.00E+00
189	0.	1.04E-08	9.86E-10	5.09E-09	0.00E+00	1.47E-08	6.34E-10	4.19E-11	3.60E-08	6.78E-08	0.00E+00
190	0.	8.44E-09	7.98E-10	4.12E-09	0.00E+00	1.47E-08	5.13E-10	4.19E-11	3.40E-08	6.25E-08	0.00E+00
191	0.	7.28E-09	6.89E-10	3.55E-09	0.00E+00	1.47E-08	4.43E-10	4.19E-11	3.28E-08	5.95E-08	0.00E+00
192	0.	1.38E-08	1.30E-09	6.73E-09	0.00E+00	1.47E-08	8.38E-10	4.19E-11	3.94E-08	7.68E-08	0.00E+00
193	0.	1.37E-08	1.30E-09	6.70E-09	0.00E+00	1.47E-08	8.34E-10	4.19E-11	3.93E-08	7.66E-08	0.00E+00
194	0.	9.03E-09	8.54E-10	4.41E-09	0.00E+00	1.47E-08	5.49E-10	4.19E-11	3.46E-08	6.41E-08	0.00E+00
195	0.	7.31E-09	6.90E-10	3.56E-09	0.00E+00	1.47E-08	4.44E-10	4.19E-11	3.28E-08	5.95E-08	0.00E+00
196	0.	6.04E-09	5.67E-10	2.93E-09	0.00E+00	1.47E-08	3.64E-10	4.19E-11	3.15E-08	5.61E-08	0.00E+00
197	0.	1.08E-08	1.02E-09	5.27E-09	0.00E+00	1.47E-08	6.56E-10	4.19E-11	3.64E-08	6.88E-08	0.00E+00
198	0.	9.65E-09	9.12E-10	4.70E-09	0.00E+00	1.47E-08	5.86E-10	4.19E-11	3.52E-08	6.57E-08	0.00E+00
199	0.	7.81E-09	7.40E-10	3.82E-09	0.00E+00	1.47E-08	4.76E-10	4.19E-11	3.34E-08	6.09E-08	0.00E+00
200	0.	6.18E-09	5.84E-10	3.01E-09	0.00E+00	1.47E-08	3.75E-10	4.19E-11	3.17E-08	5.65E-08	0.00E+00
201	0.	1.27E-09	1.19E-10	6.12E-10	0.00E+00	1.47E-08	7.62E-11	4.19E-11	2.68E-08	4.35E-08	0.00E+00
202	0.	5.36E-09	5.06E-10	2.61E-09	0.00E+00	1.47E-08	3.25E-10	4.19E-11	3.09E-08	5.44E-08	0.00E+00
203	0.	8.09E-09	7.65E-10	3.95E-09	0.00E+00	1.47E-08	4.92E-10	4.19E-11	3.36E-08	6.16E-08	0.00E+00
204	0.	7.29E-09	6.90E-10	3.56E-09	0.00E+00	1.47E-08	4.44E-10	4.19E-11	3.28E-08	5.95E-08	0.00E+00
205	0.	5.98E-09	5.67E-10	2.93E-09	0.00E+00	1.47E-08	3.64E-10	4.19E-11	3.15E-08	5.61E-08	0.00E+00
										TOTAL BURDEN =	0.00E+00

R-RAM® RESULTS
PLAUSIBLE SCENARIO

ra:dez

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Wed Nov 29 15:47:06 1989

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lw ra:dez Job: plausible3.out Date: Wed Nov 29 15:47:06 1989

lw ra:dez Job: plausible3.out Date: Wed Nov 29 15:47:06 1989

lw ra:dez Job: plausible3.out Date: Wed Nov 29 15:47:06 1989

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plausible3.out

2

*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:27 VERSION: 42688

The Pathway Variables are:

** GENERAL **

Risk Threshold For Burden Calc.	1.900E-07
Body Weight (kg)	7.000E+01
Alternate Exposure Period (yrs)	3.000E+01

** RESPIRATION **

Respiration Rate (m ³ /day)	2.000E+01
Particle Correction	1.000E+00

** SOIL **

Mixing Depth (m)	1.500E-01
Soil Consumption, 70 Years (kg/day)	7.000E-05
Soil Consumption, Alt. Years (kg/day)	7.000E-05

** PLANT **

Rec. # Used as Farm (0=Rec. Specific)	0.000E+00
Interception Fraction (*)	6.000E-02
Elimination Constant (1/day)	6.930E-02
Days Exposed (day)	6.000E+01
Edible Crop Density (kg/m ²)	2.000E+00
Cleaning Efficiency (*)	2.500E-01
Plant Consumption (kg/day)	2.000E-02
Root Vegetable Consumption (kg/day)	1.000E-02

** FISH **

Rec. # Used as Water Body	1.950E+02
Rec. # Used as Runoff	1.950E+02
Water Surface Area (m ²)	3.200E+08
Water Flowrate (kg/day)	1.100E+10
Sediment Flowrate (kg/day)	0.000E+00
Deposition Period	1.000E+00
Fish Consumption (g/day)	0.000E+00

** DAIRY AND BEEF **

Rec. # Used as Dairy Pasture	1.200E+01
Rec. # Used as Dairy Feedlot	1.200E+01
Fraction of Dairy Feed From Grazing	1.000E+00
Bioconcentration Factor for Milk	7.000E+00
Rec. # Used as Beef Pasture	1.200E+01
REC. # Used as Beef Feedlot	1.200E+01
Fraction of Beef Feed from Grazing	1.000E+00
Bioconcentration Factor for Beef	7.000E+00
Cattle Inhalation Rate (m ³ /day)	1.580E+02
Fodder Exposure Period (days)	4.800E+01
Fodder Surface Area (m ² /day)	1.000E+00
Quantity of Fodder Exposed (kg)	3.600E+01
Water Surface Area (m ²)	8.550E+00
Water Residence Time (hr)	7.520E+00
Water Quantity in Water Tank (kg)	4.700E+03
Milk Production Rate (kg/day)	2.300E+00
Cattle Body Weight (kg)	2.400E+02

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:27 VERSION: 42688

Grass Interception (*)	5.700E-01
Grass Density (kg/m^2)	5.800E-01
Grass Consumption Rate (kg/day)	1.600E+01
Soil Consumption Rate (kg/day)	2.000E+00
Water Consumption Rate (kg/day)	1.500E+02
Fodder Consumption Rate (kg/day)	1.600E+01
Beef Consumption Rate (kg/day)	2.000E-03
Milk Consumption Rate (kg/day)	4.000E-03

** DERMAL **

Skin Surface Area (cm^2)	4.170E+03
Dust on Skin (mg/cm^2/day)	5.000E-01

** MOTHERS MILK **

Female Fat Content (kg)	1.800E+01
Infant Milk Consumption (ml/day)	4.250E+02
Infant Body Weight (kg)	8.500E+00

** DRINKING WATER **

Rec. # Used as Reservoir	6.400E+01
Reservoir Surface Area (m^2)	2.300E+04
Water Reservoir Outflow (kg/day)	2.600E+07
Drinking Water Consumption (kg/day)	2.000E+00

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:27 VERSION: 42688

THE POLLUTANT SPECIFIC DATA ARE:

SYMBOL	INGEST POT.	INHALE POT.	BIOCONC	ROOT	CLASS
BA	0.000E+00	0.000E+00	1.700E+00	1.05E-02	M
BENZ	2.900E-02	2.900E-02	5.000E+00	0.00E+00	A
BE	8.400E+00	8.400E+00	1.900E+01	7.79E-04	M
BEHP	1.400E-02	1.400E-02	3.800E+02	7.00E-02	A
BRCL2ME	1.300E-01	1.300E-01	0.000E+00	0.00E+00	A
CHBR3	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
BBPH	0.000E+00	0.000E+00	8.472E+03	1.70E-01	M
CCL4	1.300E-01	5.200E-02	1.900E+01	0.00E+00	A
CLBENZ	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
CHCL3	6.100E-03	8.100E-02	3.750E+00	0.00E+00	A
CD	0.000E+00	6.100E+00	8.100E+01	5.33E-02	M
CR	0.000E+00	4.100E+01	1.600E+01	1.11E-03	M
CU	0.000E+00	0.000E+00	2.000E+02	6.07E-02	M
DIETHPH	0.000E+00	0.000E+00	0.000E+00	5.00E-02	A
MDCBENZ	0.000E+00	0.000E+00	5.600E+01	0.00E+00	A
ODCBENZ	0.000E+00	0.000E+00	5.600E+01	0.00E+00	A
PDCBENZ	2.400E-02	2.400E-02	5.600E+01	0.00E+00	A
ME2PHEN	0.000E+00	0.000E+00	0.000E+00	5.30E-02	A
DIOXANE	1.100E-02	1.100E-02	0.000E+00	0.00E+00	A
EDC	7.300E-02	7.300E-02	0.000E+00	0.00E+00	A
ETHGLYC	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
HEXBENZ	1.700E+00	1.700E+00	8.690E+03	6.00E-02	A
PB	0.000E+00	0.000E+00	4.900E+01	3.86E-03	M
HG	0.000E+00	0.000E+00	5.500E+03	8.02E-02	M
CH2BR2	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
CH2CL2	7.500E-03	1.600E-03	5.000E+00	0.00E+00	A
NAPHTH	0.000E+00	0.000E+00	8.000E+01	6.00E-02	A
NI	0.000E+00	0.000E+00	4.700E+01	1.26E-02	M
NO2BEN	0.000E+00	0.000E+00	0.000E+00	9.00E-01	A
NO2PHEN	0.000E+00	0.000E+00	0.000E+00	2.50E-01	A
PFORMAL	4.600E-02	4.600E-02	0.000E+00	0.00E+00	A
PHENOL	0.000E+00	0.000E+00	1.100E+00	7.10E-01	M
AG	0.000E+00	0.000E+00	3.080E+03	3.74E-02	M
TCDD	1.560E+05	1.560E+05	5.000E+03	1.00E-02	M
PCE	5.100E-02	3.330E-03	3.100E+01	0.00E+00	A
1122PCA	0.000E+00	0.000E+00	4.200E+01	0.00E+00	A
TCE	1.100E-02	1.700E-02	1.060E+01	0.00E+00	A
CL3BENZ	0.000E+00	0.000E+00	0.000E+00	4.70E-02	A

SYMBOL - Pollutant name
 POTENCY - Pollutant ingestion potency slope
 INHALE POT. - Pollutant inhalation potency slope
 BIOCONC - Bioconcentration factor for fish
 ROOT - Root uptake factor
 CLASS - 'A' Area weighted deposition flux
 'M' Mass weighted deposition flux

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:27 VERSION: 42688

THE ELIMINATION RATE DATA ARE:

SYMBOL	SOIL	ANIMAL	MOTHERS MILK
BA	1.000E+00	1.000E-01	1.000E+00
BENZ	1.000E+00	1.000E-01	1.000E+00
BE	1.000E+00	1.000E-01	1.000E+00
BEHP	1.820E+01	7.500E-01	7.500E-01
BRCL2ME	1.000E+00	1.000E-01	1.000E+00
CHBR3	1.000E+00	1.000E-01	1.000E+00
BBPH	1.820E+01	7.500E-01	7.500E-01
CCL4	1.000E+00	1.000E-01	1.000E+00
CLBENZ	1.000E+00	3.300E-02	3.300E-02
CHCL3	1.000E+00	1.000E-01	1.000E+00
CD	1.000E+00	1.000E-01	1.000E+00
CR	1.000E+00	1.000E-01	1.000E+00
CU	1.000E+00	1.000E-01	1.000E+00
DIETHPH	1.820E+01	7.500E-01	7.500E-01
MDCBENZ	7.300E-01	7.000E-02	7.000E-02
ODCBENZ	7.300E-01	7.000E-02	7.000E-02
PDCBENZ	7.300E-01	7.000E-02	7.000E-02
ME2PHEN	1.000E+00	1.000E-01	7.000E-01
DIOXANE	1.000E+00	1.000E-01	1.000E+00
EDC	1.000E+00	1.000E-01	1.000E+00
ETHGLYC	1.000E+00	1.000E-01	1.000E+00
HEXBENZ	1.200E-01	1.400E-02	6.300E-04
PB	1.000E+00	1.000E-01	1.000E+00
HG	1.000E+00	1.000E-01	1.000E+00
CH2BR2	1.000E+00	1.000E-01	1.000E+00
CH2CL2	1.000E+00	1.000E-01	1.000E+00
NAPHTH	2.310E+02	9.900E-02	9.900E-02
NI	1.000E+00	1.000E-01	1.000E+00
NO2BEN	1.000E+00	2.300E-01	2.300E-01
NO2PHEN	1.000E+00	1.400E-01	1.400E-01
PFORMAL	1.000E+00	1.000E-01	1.000E+00
PHENOL	6.930E+01	1.400E-01	1.400E-01
AG	1.000E+00	1.000E-01	1.000E+00
TCDD	6.930E-02	1.060E-01	4.500E-04
PCE	1.000E+00	1.000E-01	1.000E+00
1122PCA	1.000E+00	1.000E-01	1.000E+00
TCE	1.000E+00	1.000E-01	1.000E+00
CL3BENZ	7.300E-01	3.300E-02	3.300E-02

SYMBOL - Pollutant name
 SOIL - Elimination constant for soil
 ANIMAL - Elimination constant for cattle
 MILK - Elimination constant for mothers milk

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*** LLNL HRA plausible scenario ***

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THE POPULATIONS OF THE RECEPTORS ARE:

Receptor	Population			
1	0.	555200	4200600	5
2	0.	555300	4200600	5
3	0.	555400	4200600	10
4	0.	555500	4200600	10
5	0.	555600	4200600	15
6	0.	555700	4200600	15
7	0.	555800	4200600	20
8	0.	555900	4200600	20
9	0.	556000	4200600	25
10	0.	556100	4200600	25
11	0.	555200	4200500	5
12	0.	555300	4200500	5
13	0.	555400	4200500	10
14	0.	555500	4200500	10
15	0.	555600	4200500	15
16	0.	555700	4200500	15
17	0.	555800	4200500	20
18	0.	555900	4200500	25
19	0.	556000	4200500	25
20	0.	556100	4200500	25
21	0.	555200	4200400	5
22	0.	555300	4200400	5
23	0.	555400	4200400	10
24	0.	555500	4200400	10
25	0.	555600	4200400	15
26	0.	555700	4200400	15
27	0.	555800	4200400	20
28	0.	555900	4200400	20
29	0.	556000	4200400	25
30	0.	556100	4200400	25
31	0.	555200	4200300	5
32	0.	555300	4200300	5
33	0.	555400	4200300	5
34	0.	555500	4200300	10
35	0.	555600	4200300	10
36	0.	555700	4200300	15
37	0.	555800	4200300	20
38	0.	555900	4200300	20
39	0.	556000	4200300	25
40	0.	556100	4200300	25
41	0.	555200	4200200	5
42	0.	555300	4200200	5
43	0.	555400	4200200	5
44	0.	555500	4200200	10
45	0.	555600	4200200	15
46	0.	555700	4200200	15

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*** LLNL HRA plausible scenario ***

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Receptor	Population			
47	0.	555800	4200200	20
48	0.	555900	4200200	20
49	0.	556000	4200200	20
50	0.	556100	4200200	25
51	0.	555200	4200100	5
52	0.	555300	4200100	5
53	0.	555400	4200100	10
54	0.	555500	4200100	15
55	0.	555600	4200100	15
56	0.	555700	4200100	15
57	0.	555800	4200100	20
58	0.	555900	4200100	20
59	0.	556000	4200100	20
60	0.	556100	4200100	25
61	0.	555200	4200000	5
62	0.	555300	4200000	10
63	0.	555400	4200000	15
64	0.	555500	4200000	15
65	0.	555600	4200000	15
66	0.	555700	4200000	15
67	0.	555800	4200000	20
68	0.	555900	4200000	20
69	0.	556000	4200000	20
70	0.	556100	4200000	25
71	0.	555200	4199900	10
72	0.	555300	4199900	10
73	0.	555400	4199900	15
74	0.	555500	4199900	15
75	0.	555600	4199900	15
76	0.	555700	4199900	20
77	0.	555800	4199900	20
78	0.	555900	4199900	20
79	0.	556000	4199900	20
80	0.	556100	4199900	25
81	0.	555200	4199800	10
82	0.	555300	4199800	10
83	0.	555400	4199800	15
84	0.	555500	4199800	15
85	0.	556250	4199100	25
86	0.	555700	4199800	20
87	0.	555800	4199800	20
88	0.	555900	4199800	20
89	0.	556000	4199800	20
90	0.	556100	4199800	25
91	0.	555400	4199100	15
92	0.	555500	4199200	15
93	0.	555600	4199300	15
94	0.	555650	4199400	15
95	0.	556000	4199200	25
96	0.	555700	4199700	15
97	0.	555800	4199700	15

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*** LLNL HRA plausible scenario ***

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Receptor	Population				
98	0.	555900	4199700	20	
99	0.	556000	4199700	20	
100	0.	556100	4199700	25	
101	0.	553500	4201500	0	
102	0.	554000	4201500	0	
103	0.	554500	4201500	0	
104	0.	555000	4201500	10	
105	0.	555500	4201500	15	
106	0.	556000	4201500	20	
107	0.	556500	4201500	30	
108	0.	557000	4201500	40	3680
109	0.	557500	4201500	50	3680
110	0.	553500	4201000	0	
111	0.	554000	4201000	0	
112	0.	554500	4201000	0	
113	0.	555000	4201000	10	
114	0.	555500	4201000	10	3650.02
115	0.	556000	4201000	20	3650.02
116	0.	556500	4201000	30	
117	0.	557000	4201000	40	3680
118	0.	557500	4201000	55	
119	0.	553500	4200500	0	
120	0.	554000	4200500	0	
121	0.	554500	4200500	0	
122	0.	555000	4200500	0	
123	0.	555500	4200500	10	3650.02
124	0.	556000	4200500	25	3650.02
125	0.	556500	4200500	40	3680
126	0.	557000	4200500	50	3680
127	0.	557500	4200500	65	3720
128	0.	553500	4200000	0	
129	436.				
130	436.				
131	436.				
132	436.				
133	436.				
134	436.				
135	436.				
136	436.				
137	436.				
138	1090.				
139	1090.				
140	1090.				
141	1090.				
142	1090.				
143	1090.				
144	1090.				
145	1090.				
146	5378.				
147	5378.				
148	3578.				

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:28 VERSION: 42688

Receptor	Population
149	3860.
150	3860.
151	3860.
152	3860.
153	3860.
154	3073.
155	3073.
156	3073.
157	3073.
158	3073.
159	3073.
160	3073.
161	2808.
162	2808.
163	2808.
164	2808.
165	2808.
166	4574.
167	4574.
168	4574.
169	4574.
170	4574.
171	0.
172	0.
173	0.
174	0.
175	0.
176	0.
177	0.
178	0.
179	0.
180	0.
181	0.
182	0.
183	0.
184	0.
185	0.
186	0.
187	0.
188	0.
189	0.
190	0.
191	0.
192	0.
193	0.
194	0.
195	0.
196	0.
197	0.
198	0.
199	0.

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*** LLNL HRA plausible scenario ***

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Receptor	Population
200	0.
201	0.
202	0.
203	0.
204	0.
205	0.

Receptor - Receptor name
Population - Number of people living at receptor

*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:28 VERSION: 42688

Unit concentrations and deposition fluxes are:

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
1				
	1	1.610E+00	3.220E-02	3.220E-02
	2	6.630E-01	1.330E-02	1.330E-02
	3	7.750E-01	1.550E-02	1.550E-02
	4	1.090E+00	2.180E-02	2.180E-02
	5	9.960E-01	1.990E-02	1.990E-02
	6	7.400E-01	1.480E-02	1.480E-02
	7	5.500E-01	1.100E-02	1.100E-02
	8	4.280E-01	8.560E-03	8.560E-03
	9	3.420E-01	6.850E-03	6.850E-03
	10	8.400E-02	1.680E-03	1.680E-03
	11	3.990E+00	7.980E-02	7.980E-02
	12	3.970E+00	7.940E-02	7.940E-02
	13	2.410E+00	4.830E-02	4.830E-02
	14	1.830E+00	3.660E-02	3.660E-02
	15	1.180E+00	2.370E-02	2.370E-02
	16	7.810E-01	1.560E-02	1.560E-02
	17	5.480E-01	1.100E-02	1.100E-02
	18	4.060E-01	8.120E-03	8.120E-03
	19	5.730E-02	1.150E-03	1.150E-03
	20	1.450E-01	2.900E-03	2.900E-03
	21	2.350E+00	4.700E-02	4.700E-02
	22	2.020E+00	4.040E-02	4.040E-02
	23	1.630E+00	3.250E-02	3.250E-02
	24	1.400E+00	2.800E-02	2.800E-02
	25	8.720E-01	1.740E-02	1.740E-02
	26	6.450E-01	1.290E-02	1.290E-02
	27	4.820E-01	9.640E-03	9.640E-03
	28	5.140E-02	1.030E-03	1.030E-03
	29	9.030E-02	1.810E-03	1.810E-03
	30	3.520E-01	7.030E-03	7.030E-03
	31	1.450E+00	2.890E-02	2.890E-02
	32	1.670E+00	3.340E-02	3.340E-02
	33	1.500E+00	3.010E-02	3.010E-02
	34	1.030E+00	2.050E-02	2.050E-02
	35	7.080E-01	1.420E-02	1.420E-02
	36	5.200E-01	1.040E-02	1.040E-02
	37	5.560E-02	1.110E-03	1.110E-03
	38	9.430E-02	1.890E-03	1.890E-03
	39	1.640E-01	3.290E-03	3.290E-03
	40	6.150E-01	1.230E-02	1.230E-02
	41	1.300E+00	2.610E-02	2.610E-02
	42	1.580E+00	3.160E-02	3.160E-02
	43	1.030E+00	2.070E-02	2.070E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/sArea Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/sMass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:28 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	44	7.830E-01	1.570E-02	1.570E-02
	45	5.790E-01	1.160E-02	1.160E-02
	46	5.620E-02	1.120E-03	1.120E-03
	47	9.860E-02	1.970E-03	1.970E-03
	48	1.470E-01	2.930E-03	2.930E-03
	49	3.850E-01	7.700E-03	7.700E-03
	50	9.090E-01	1.820E-02	1.820E-02
	51	1.450E+00	2.910E-02	2.910E-02
	52	9.470E-01	1.890E-02	1.890E-02
	53	7.850E-01	1.570E-02	1.570E-02
	54	6.070E-01	1.210E-02	1.210E-02
	55	6.310E-02	1.260E-03	1.260E-03
	56	9.240E-02	1.850E-03	1.850E-03
	57	1.370E-01	2.730E-03	2.730E-03
	58	2.550E-01	5.110E-03	5.110E-03
	59	5.590E-01	1.120E-02	1.120E-02
	60	9.640E-01	1.930E-02	1.930E-02
	61	7.300E-01	1.460E-02	1.460E-02
	62	6.710E-01	1.340E-02	1.340E-02
	63	5.960E-01	1.190E-02	1.190E-02
	64	4.380E-01	8.760E-03	8.760E-03
	65	1.030E-01	2.060E-03	2.060E-03
	66	1.080E-01	2.150E-03	2.150E-03
	67	1.190E-01	2.380E-03	2.380E-03
	68	1.270E-01	2.550E-03	2.550E-03
	69	1.300E-01	2.590E-03	2.590E-03
	70	1.270E-01	2.540E-03	2.540E-03
	71	1.220E-01	2.440E-03	2.440E-03
	72	1.130E-01	2.260E-03	2.260E-03
	73	1.060E-01	2.120E-03	2.120E-03
	74	8.240E-02	1.650E-03	1.650E-03
	75	6.290E-02	1.260E-03	1.260E-03
	76	6.850E-02	1.370E-03	1.370E-03
	77	7.540E-02	1.510E-03	1.510E-03
	78	9.100E-02	1.820E-03	1.820E-03
	79	1.110E-01	2.220E-03	2.220E-03
	80	1.270E-01	2.550E-03	2.550E-03
	81	1.400E-01	2.800E-03	2.800E-03
	82	1.540E-01	3.080E-03	3.080E-03
	83	1.610E-01	3.220E-03	3.220E-03
	84	1.540E-01	3.080E-03	3.080E-03
	85	1.560E-01	3.120E-03	3.120E-03
	86	1.460E-01	2.910E-03	2.910E-03
	87	1.480E-01	2.950E-03	2.950E-03
	88	1.510E-01	3.020E-03	3.020E-03
	89	1.600E-01	3.200E-03	3.200E-03
	90	1.590E-01	3.190E-03	3.190E-03
	91	6.490E-02	1.300E-03	1.300E-03
	92	7.770E-02	1.550E-03	1.550E-03

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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plausible3.out

*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:29 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	93	1.100E-01	2.190E-03	2.190E-03
	94	1.300E-01	2.600E-03	2.600E-03
	95	1.570E-01	3.140E-03	3.140E-03
	96	1.630E-01	3.270E-03	3.270E-03
	97	1.630E-01	3.270E-03	3.270E-03
	98	1.340E-01	2.670E-03	2.670E-03
	99	1.260E-01	2.520E-03	2.520E-03
100		1.170E-01	2.330E-03	2.330E-03
101		1.380E-01	2.770E-03	2.770E-03
102		1.540E-01	3.090E-03	3.090E-03
103		1.840E-01	3.670E-03	3.670E-03
104		2.220E-01	4.450E-03	4.450E-03
105		2.760E-01	5.510E-03	5.510E-03
106		3.310E-01	6.620E-03	6.620E-03
107		4.900E-01	9.790E-03	9.790E-03
108		8.060E-01	1.610E-02	1.610E-02
109		9.140E-01	1.830E-02	1.830E-02
110		7.330E-01	1.470E-02	1.470E-02
111		4.660E-01	9.310E-03	9.310E-03
112		5.300E-01	1.060E-02	1.060E-02
113		4.300E-01	8.590E-03	8.590E-03
114		3.450E-01	6.900E-03	6.900E-03
115		1.480E-01	2.950E-03	2.950E-03
116		1.580E-01	3.170E-03	3.170E-03
117		1.790E-01	3.570E-03	3.570E-03
118		2.110E-01	4.210E-03	4.210E-03
119		2.850E-01	5.690E-03	5.690E-03
120		3.900E-01	7.810E-03	7.810E-03
121		4.300E-01	8.590E-03	8.590E-03
122		4.610E-01	9.220E-03	9.220E-03
123		5.150E-01	1.030E-02	1.030E-02
124		6.670E-01	1.330E-02	1.330E-02
125		4.670E-01	9.340E-03	9.340E-03
126		3.120E-01	6.230E-03	6.230E-03
127		2.040E-01	4.070E-03	4.070E-03
128		1.400E-01	2.810E-03	2.810E-03
129		1.960E-02	3.920E-04	3.920E-04
130		2.290E-02	4.570E-04	4.570E-04
131		5.460E-02	1.090E-03	1.090E-03
132		2.260E-02	4.510E-04	4.510E-04
133		8.240E-02	1.650E-03	1.650E-03
134		1.040E+00	2.080E-02	2.080E-02
135		3.770E-02	7.540E-04	7.540E-04
136		4.480E-02	8.950E-04	8.950E-04
137		2.400E-02	4.810E-04	4.810E-04
138		7.190E-02	1.440E-03	1.440E-03
139		1.790E-01	3.590E-03	3.590E-03
140		4.090E-02	8.170E-04	8.170E-04
141		5.500E-02	1.100E-03	1.100E-03

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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plausible3.out

*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:29 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
142		3.970E-02	7.930E-04	7.930E-04
143		1.520E-01	3.040E-03	3.040E-03
144		6.110E-02	1.220E-03	1.220E-03
145		3.740E-02	7.480E-04	7.480E-04
146		2.210E-02	4.430E-04	4.430E-04
147		2.080E-02	4.150E-04	4.150E-04
148		2.970E-02	5.940E-04	5.940E-04
149		2.660E-02	5.320E-04	5.320E-04
150		4.250E-02	8.500E-04	8.500E-04
151		3.250E-02	6.500E-04	6.500E-04
152		1.100E-01	2.200E-03	2.200E-03
153		1.970E-01	3.940E-03	3.940E-03
154		5.560E-02	1.110E-03	1.110E-03
155		9.440E-02	1.890E-03	1.890E-03
156		7.800E-02	1.560E-03	1.560E-03
157		9.470E-02	1.890E-03	1.890E-03
158		1.010E-01	2.030E-03	2.030E-03
159		9.580E-02	1.920E-03	1.920E-03
160		5.810E-02	1.160E-03	1.160E-03
161		3.100E-02	6.210E-04	6.210E-04
162		3.970E-02	7.940E-04	7.940E-04
163		5.390E-02	1.080E-03	1.080E-03
164		2.860E-02	5.710E-04	5.710E-04
165		3.770E-02	7.550E-04	7.550E-04
166		1.870E-02	3.740E-04	3.740E-04
167		2.390E-02	4.780E-04	4.780E-04
168		1.620E-02	3.240E-04	3.240E-04
169		2.140E-02	4.280E-04	4.280E-04
170		1.870E-02	3.750E-04	3.750E-04
171		3.770E-01	7.550E-03	7.550E-03
172		3.770E-01	7.530E-03	7.530E-03
173		3.450E-01	6.890E-03	6.890E-03
174		2.480E-01	4.950E-03	4.950E-03
175		2.590E-01	5.170E-03	5.170E-03
176		1.990E-01	3.990E-03	3.990E-03
177		1.850E-01	3.690E-03	3.690E-03
178		5.830E-01	1.170E-02	1.170E-02
179		4.410E-01	8.830E-03	8.830E-03
180		4.390E-01	8.770E-03	8.770E-03
181		3.870E-01	7.730E-03	7.730E-03
182		7.280E-01	1.460E-02	1.460E-02
183		1.020E+00	2.030E-02	2.030E-02
184		1.250E+00	2.500E-02	2.500E-02
185		1.460E+00	2.920E-02	2.920E-02
186		1.460E+00	2.930E-02	2.930E-02
187		5.020E+00	1.000E-01	1.000E-01
188		5.000E+00	1.000E-01	1.000E-01
189		3.770E+00	7.530E-02	7.530E-02
190		3.050E+00	6.090E-02	6.090E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:29 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	191	2.630E+00	5.260E-02	5.260E-02
	192	4.980E+00	9.960E-02	9.960E-02
	193	4.960E+00	9.910E-02	9.910E-02
	194	3.260E+00	6.520E-02	6.520E-02
	195	2.640E+00	5.270E-02	5.270E-02
	196	2.170E+00	4.330E-02	4.330E-02
	197	3.900E+00	7.800E-02	7.800E-02
	198	3.480E+00	6.960E-02	6.960E-02
	199	2.820E+00	5.650E-02	5.650E-02
	200	2.230E+00	4.460E-02	4.460E-02
	201	4.530E-01	9.050E-03	9.050E-03
	202	1.930E+00	3.860E-02	3.860E-02
	203	2.920E+00	5.840E-02	5.840E-02
	204	2.630E+00	5.270E-02	5.270E-02
	205	2.160E+00	4.330E-02	4.330E-02

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1	1.620E+01	3.240E-01	3.240E-01
2	2.180E+01	4.360E-01	4.360E-01
3	4.500E+00	9.000E-02	9.000E-02
4	2.730E+00	5.460E-02	5.460E-02
5	1.950E+00	3.900E-02	3.900E-02
6	1.350E+00	2.710E-02	2.710E-02
7	9.870E-01	1.970E-02	1.970E-02
8	7.640E-01	1.530E-02	1.530E-02
9	6.080E-01	1.220E-02	1.220E-02
10	8.820E+01	1.760E+00	1.760E+00
11	1.330E+02	2.660E+00	2.660E+00
12	2.430E+01	4.850E-01	4.850E-01
13	7.580E+00	1.520E-01	1.520E-01
14	3.660E+00	7.310E-02	7.310E-02
15	2.090E+00	4.170E-02	4.170E-02
16	1.330E+00	2.670E-02	2.670E-02
17	9.220E-01	1.840E-02	1.840E-02
18	6.720E-01	1.340E-02	1.340E-02
19	8.570E+00	1.710E-01	1.710E-01
20	9.080E+00	1.820E-01	1.820E-01
21	1.810E+01	3.610E-01	3.610E-01
22	9.940E+00	1.990E-01	1.990E-01
23	5.080E+00	1.020E-01	1.020E-01
24	2.580E+00	5.170E-02	5.170E-02
25	1.610E+00	3.210E-02	3.210E-02
26	1.150E+00	2.300E-02	2.300E-02
27	8.530E-01	1.710E-02	1.710E-02
28	3.370E+00	6.740E-02	6.740E-02
29	3.830E+00	7.660E-02	7.660E-02
30	5.140E+00	1.030E-01	1.030E-01
31	7.320E+00	1.460E-01	1.460E-01
32	6.000E+00	1.200E-01	1.200E-01
33	3.220E+00	6.440E-02	6.440E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:30 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	34	2.000E+00	4.000E-02	4.000E-02
	35	1.390E+00	2.790E-02	2.790E-02
	36	9.460E-01	1.890E-02	1.890E-02
	37	2.010E+00	4.010E-02	4.010E-02
	38	2.380E+00	4.760E-02	4.760E-02
	39	2.360E+00	4.720E-02	4.720E-02
	40	4.000E+00	8.010E-02	8.010E-02
	41	4.470E+00	8.930E-02	8.930E-02
	42	2.920E+00	5.840E-02	5.840E-02
	43	2.030E+00	4.070E-02	4.070E-02
	44	1.530E+00	3.060E-02	3.060E-02
	45	1.090E+00	2.180E-02	2.180E-02
	46	1.270E+00	2.550E-02	2.550E-02
	47	1.670E+00	3.340E-02	3.340E-02
	48	1.660E+00	3.310E-02	3.310E-02
	49	2.220E+00	4.430E-02	4.430E-02
	50	2.300E+00	4.590E-02	4.590E-02
	51	2.230E+00	4.460E-02	4.460E-02
	52	1.800E+00	3.610E-02	3.610E-02
	53	1.460E+00	2.920E-02	2.920E-02
	54	1.100E+00	2.190E-02	2.190E-02
	55	9.670E-01	1.930E-02	1.930E-02
	56	1.180E+00	2.370E-02	2.370E-02
	57	1.310E+00	2.620E-02	2.620E-02
	58	1.370E+00	2.730E-02	2.730E-02
	59	1.330E+00	2.650E-02	2.650E-02
	60	1.480E+00	2.950E-02	2.950E-02
	61	1.480E+00	2.960E-02	2.960E-02
	62	1.220E+00	2.440E-02	2.440E-02
	63	1.080E+00	2.160E-02	2.160E-02
	64	8.950E-01	1.790E-02	1.790E-02
	65	7.800E-01	1.560E-02	1.560E-02
	66	7.090E-01	1.420E-02	1.420E-02
	67	7.170E-01	1.430E-02	1.430E-02
	68	7.120E-01	1.420E-02	1.420E-02
	69	7.020E-01	1.400E-02	1.400E-02
	70	6.800E-01	1.360E-02	1.360E-02
	71	6.260E-01	1.250E-02	1.250E-02
	72	5.370E-01	1.070E-02	1.070E-02
	73	4.830E-01	9.660E-03	9.660E-03
	74	1.900E-01	3.800E-03	3.800E-03
	75	9.430E-01	1.890E-02	1.890E-02
	76	1.110E+00	2.220E-02	2.220E-02
	77	1.260E+00	2.510E-02	2.510E-02
	78	1.530E+00	3.060E-02	3.060E-02
	79	1.960E+00	3.920E-02	3.920E-02
	80	2.370E+00	4.740E-02	4.740E-02
	81	2.720E+00	5.440E-02	5.440E-02
	82	3.240E+00	6.490E-02	6.490E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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plausible3.out

*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:30 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	83	3.840E+00	7.680E-02	7.680E-02
	84	3.900E+00	7.800E-02	7.800E-02
	85	4.100E+00	8.200E-02	8.200E-02
	86	3.360E+00	6.720E-02	6.720E-02
	87	3.000E+00	6.010E-02	6.010E-02
	88	2.890E+00	5.770E-02	5.770E-02
	89	2.370E+00	4.730E-02	4.730E-02
	90	1.790E+00	3.580E-02	3.580E-02
	91	6.990E-01	1.400E-02	1.400E-02
	92	8.440E-01	1.690E-02	1.690E-02
	93	1.240E+00	2.470E-02	2.470E-02
	94	1.570E+00	3.140E-02	3.140E-02
	95	2.050E+00	4.100E-02	4.100E-02
	96	2.390E+00	4.770E-02	4.770E-02
	97	2.540E+00	5.070E-02	5.070E-02
	98	1.830E+00	3.660E-02	3.660E-02
	99	1.670E+00	3.330E-02	3.330E-02
100		1.160E+00	2.310E-02	2.310E-02
101		9.590E-01	1.920E-02	1.920E-02
102		1.140E+00	2.280E-02	2.280E-02
103		1.430E+00	2.860E-02	2.860E-02
104		1.850E+00	3.710E-02	3.710E-02
105		2.430E+00	4.860E-02	4.860E-02
106		2.740E+00	5.470E-02	5.470E-02
107		3.650E+00	7.310E-02	7.310E-02
108		5.180E+00	1.040E-01	1.040E-01
109		5.820E+00	1.160E-01	1.160E-01
110		5.200E+00	1.040E-01	1.040E-01
111		2.150E+00	4.300E-02	4.300E-02
112		1.270E+00	2.540E-02	2.540E-02
113		9.030E-01	1.810E-02	1.810E-02
114		6.820E-01	1.360E-02	1.360E-02
115		8.010E-01	1.600E-02	1.600E-02
116		8.330E-01	1.670E-02	1.670E-02
117		1.020E+00	2.030E-02	2.030E-02
118		1.140E+00	2.280E-02	2.280E-02
119		1.240E+00	2.480E-02	2.480E-02
120		1.770E+00	3.550E-02	3.550E-02
121		1.820E+00	3.640E-02	3.640E-02
122		2.230E+00	4.460E-02	4.460E-02
123		1.990E+00	3.990E-02	3.990E-02
124		1.640E+00	3.290E-02	3.290E-02
125		1.120E+00	2.250E-02	2.250E-02
126		8.050E-01	1.610E-02	1.610E-02
127		4.600E-01	9.210E-03	9.210E-03
128		2.970E-01	5.940E-03	5.940E-03
129		4.820E-02	9.640E-04	9.640E-04
130		4.460E-02	8.920E-04	8.920E-04
131		1.400E-01	2.810E-03	2.810E-03

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M^3/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M^2/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M^2/s/g/s

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:30 VERSION: 42688

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
132		4.310E-02	8.620E-04	8.620E-04
133		2.030E-01	4.060E-03	4.060E-03
134		1.400E+00	2.790E-02	2.790E-02
135		2.130E-01	4.250E-03	4.250E-03
136		1.030E-01	2.060E-03	2.060E-03
137		5.740E-02	1.150E-03	1.150E-03
138		2.210E-01	4.420E-03	4.420E-03
139		4.260E-01	8.530E-03	8.530E-03
140		2.320E-01	4.630E-03	4.630E-03
141		2.620E-01	5.240E-03	5.240E-03
142		1.620E-01	3.240E-03	3.240E-03
143		5.420E-01	1.080E-02	1.080E-02
144		1.480E-01	2.960E-03	2.960E-03
145		1.080E-01	2.160E-03	2.160E-03
146		8.500E-02	1.700E-03	1.700E-03
147		8.110E-02	1.620E-03	1.620E-03
148		1.230E-01	2.460E-03	2.460E-03
149		1.090E-01	2.170E-03	2.170E-03
150		1.890E-01	3.790E-03	3.790E-03
151		1.430E-01	2.870E-03	2.870E-03
152		4.350E-01	8.700E-03	8.700E-03
153		7.340E-01	1.470E-02	1.470E-02
154		2.970E-01	5.950E-03	5.950E-03
155		7.870E-01	1.570E-02	1.570E-02
156		2.570E-01	5.140E-03	5.140E-03
157		4.460E-01	8.910E-03	8.910E-03
158		6.330E-01	1.270E-02	1.270E-02
159		1.050E+00	2.090E-02	2.090E-02
160		3.760E-01	7.520E-03	7.520E-03
161		9.260E-02	1.850E-03	1.850E-03
162		1.230E-01	2.460E-03	2.460E-03
163		1.780E-01	3.570E-03	3.570E-03
164		1.050E-01	2.090E-03	2.090E-03
165		1.430E-01	2.860E-03	2.860E-03
166		6.250E-02	1.250E-03	1.250E-03
167		8.300E-02	1.660E-03	1.660E-03
168		4.690E-02	9.390E-04	9.390E-04
169		6.380E-02	1.280E-03	1.280E-03
170		4.900E-02	9.810E-04	9.810E-04
171		1.060E+00	2.120E-02	2.120E-02
172		9.010E-01	1.800E-02	1.800E-02
173		8.130E-01	1.630E-02	1.630E-02
174		5.840E-01	1.170E-02	1.170E-02
175		5.970E-01	1.190E-02	1.190E-02
176		4.440E-01	8.880E-03	8.880E-03
177		4.160E-01	8.310E-03	8.310E-03
178		8.010E-01	1.600E-02	1.600E-02
179		8.220E-01	1.640E-02	1.640E-02
180		7.790E-01	1.560E-02	1.560E-02

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M^3/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M^2/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M^2/s/g/s

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*** LLNL HRA plausible scenario ***

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Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
	181	6.770E-01	1.350E-02	1.350E-02
	182	1.490E+01	2.970E-01	2.970E-01
	183	8.710E+00	1.740E-01	1.740E-01
	184	7.040E+00	1.410E-01	1.410E-01
	185	5.090E+00	1.020E-01	1.020E-01
	186	4.190E+00	8.380E-02	8.380E-02
	187	6.650E+01	1.330E+00	1.330E+00
	188	3.030E+01	6.060E-01	6.060E-01
	189	1.700E+01	3.400E-01	3.400E-01
	190	1.040E+01	2.070E-01	2.070E-01
	191	6.830E+00	1.370E-01	1.370E-01
	192	8.060E+01	1.610E+00	1.610E+00
	193	3.230E+01	6.470E-01	6.470E-01
	194	1.410E+01	2.820E-01	2.820E-01
	195	9.130E+00	1.830E-01	1.830E-01
	196	4.340E+01	8.670E-01	8.670E-01
	197	3.790E+01	7.580E-01	7.580E-01
	198	2.320E+01	4.650E-01	4.650E-01
	199	1.450E+01	2.900E-01	2.900E-01
	200	9.510E+00	1.900E-01	1.900E-01
	201	1.530E+01	3.070E-01	3.070E-01
	202	2.250E+01	4.510E-01	4.510E-01
	203	2.150E+01	4.290E-01	4.290E-01
	204	1.570E+01	3.140E-01	3.140E-01
	205	1.120E+01	2.250E-01	2.250E-01

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M^3/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M^2/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M^2/s/g/s

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*** LLNL HRA plausible scenario ***

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Emission rate of Pollutants from all Sources is:

Source	Pollutant	Emission Rate
1		
	BA	2.720E-09
	BENZ	7.320E-06
	BE	2.380E-08
	BEHP	1.520E-06
	BRCL2ME	1.070E-06
	CHBR3	3.620E-05
	BBPH	1.600E-07
	CCL4	9.500E-07
	CLBENZ	2.160E-06
	CHCL3	2.120E-06
	CD	1.140E-09
	CR	9.580E-09
	CU	1.250E-06
	DIETHPH	1.410E-06
	MDCBENZ	1.500E-07
	ODCBENZ	1.930E-07
	PDCBENZ	1.090E-07
	ME2PHEN	2.300E-06
	DIOXANE	3.940E-07
	EDC	7.740E-12
	ETHGLYC	4.410E-06
	HEXBENZ	2.600E-07
	PB	8.160E-09
	HG	2.740E-07
	CH2BR2	6.330E-06
	CH2CL2	3.160E-06
	NAPHTH	7.900E-06
	NI	7.140E-08
	NO2BEN	4.800E-06
	NO2PHEN	2.090E-05
	PFORMAL	2.520E-08
	PHENOL	2.120E-06
	AG	2.220E-07
	TCDD	1.300E-12
	PCE	1.120E-06
	1122PCA	8.930E-10
	TCE	2.300E-06
	CL3BENZ	2.600E-07
2		
	BA	0.000E+00
	BENZ	5.200E-08
	BE	0.000E+00
	BEHP	0.000E+00
	BRCL2ME	0.000E+00
	CHBR3	0.000E+00
	BBPH	0.000E+00

Source - Source Identification

Pollutant - Pollutant Identification

Emission rate - Emission rate of each pollutant in g/s

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:31 VERSION: 42688

Source	Pollutant	Emission Rate
	CCL4	0.000E+00
	CLBENZ	0.000E+00
	CHCL3	1.180E-08
	CD	0.000E+00
	CR	0.000E+00
	CU	0.000E+00
	DIETHPH	0.000E+00
	MDCBENZ	0.000E+00
	ODCBENZ	0.000E+00
	PDCBENZ	0.000E+00
	ME2PHEN	0.000E+00
	DIOXANE	4.020E-07
	EDC	1.690E-11
	ETHGLYC	1.340E-08
	HEXBENZ	0.000E+00
	PB	0.000E+00
	HG	0.000E+00
	CH2BR2	0.000E+00
	CH2CL2	1.320E-08
	NAPHTH	4.780E-11
	NI	0.000E+00
	NO2BEN	0.000E+00
	NO2PHEN	0.000E+00
	PFORMAL	8.400E-10
	PHENOL	1.560E-10
	AG	0.000E+00
	TCDD	0.000E+00
	PCE	7.550E-10
	1122PCA	1.430E-10
	TCE	4.330E-09
	CL3BENZ	0.000E+00

Source - Source Identification

Pollutant - Pollutant Identification

Emission rate - Emission rate of each pollutant in g/s

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:32 VERSION: 42688

The Gastrointestinal Factors are:

Symbol	Inhal	Soil	Plant	Fish	D&B	Dermal	Water	Milk	Tissue
BA	1.000	1.000	1.000	0.000	1.000	0.010	1.000	0.000	1.000
BENZ	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BE	1.000	0.010	0.010	0.000	0.000	0.010	1.000	0.000	0.010
BEHP	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
BRCL2ME	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHBR3	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BBPH	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
CCL4	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CLBENZ	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHCL3	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CD	1.000	1.000	0.060	0.000	0.000	0.010	1.000	0.000	1.000
CR	1.000	1.000	0.050	0.000	0.000	0.010	1.000	0.000	1.000
CU	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
DIETHPH	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
MDCBENZ	1.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000
ODCBENZ	1.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000
PDCBENZ	1.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000
ME2PHEN	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
DIOXANE	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EDC	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ETHGLYC	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HEXBENZ	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
PB	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
HG	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
CH2BR2	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CH2CL2	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NAPHTH	1.000	1.000	1.000	0.000	0.000	0.010	1.000	1.000	1.000
NI	1.000	0.100	0.100	0.000	0.000	0.010	1.000	0.000	0.100
NO2BEN	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
NO2PHEN	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
PFORMAL	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PHENOL	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
AG	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
TCDD	1.000	0.300	0.300	0.000	1.700	0.010	0.300	1.700	1.000
PCE	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1122PCA	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCE	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CL3BENZ	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000

Symbol - Pollutant name
Inhal - Inhalation absorbtion efficiency
Soil - Soil ingestion GI factor
Plant - Plant ingestion GI factor
Fish - Fish consumption GI factor
D&B - Beef and dairy consumption GI factor
Dermal - Dermal uptake factor
Water - Water consumption GI factor
Milk - Mothers milk consumption GI factor
Tissue - GI factor for pollutants into plant tissue

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:33 VERSION: 42688

Acceptable Daily Intakes for all Pollutants are:

Pollutant	Inhalation ADI	Ingestion ADI
BA	1.000E-01	5.000E-02
BENZ	0.000E+00	0.000E+00
BE	0.000E+00	5.000E-03
BEHP	0.000E+00	2.000E-02
BRCL2ME	0.000E+00	2.000E-02
CHBR3	3.400E-03	2.000E-02
BBPH	2.000E-01	2.000E-01
CCL4	0.000E+00	7.000E-04
CLBENZ	5.000E-03	2.000E-02
CHCL3	0.000E+00	1.000E-02
CD	0.000E+00	3.000E-04
CR	0.000E+00	5.000E-03
CU	1.400E-04	8.600E-02
DIETHPH	3.400E-03	8.000E-01
MDCBENZ	4.000E-02	9.000E-02
ODCBENZ	4.000E-02	9.000E-02
PDCBENZ	2.000E-01	0.000E+00
ME2PHEN	6.000E-04	6.000E-04
DIOXANE	6.100E-02	0.000E+00
EDC	0.000E+00	0.000E+00
ETHGLYC	8.500E-02	2.000E+00
HEXBENZ	0.000E+00	0.000E+00
PB	4.300E-04	1.400E-03
HG	6.800E-05	3.000E-04
CH2BR2	2.500E-01	2.500E-01
CH2CL2	8.600E-01	6.000E-02
NAPHTH	3.400E-02	4.000E-01
NI	6.800E-05	2.000E-02
NO2BEN	6.000E-04	5.000E-04
NO2PHEN	6.500E-04	6.500E-04
PFORMAL	0.000E+00	0.000E+00
PHENOL	1.300E-02	6.000E-01
AG	6.800E-06	3.000E-03
TCDD	0.000E+00	0.000E+00
PCE	0.000E+00	1.000E-02
1122PCA	0.000E+00	0.000E+00
TCE	0.000E+00	0.000E+00
CL3BENZ	3.000E-03	2.000E-02

Pollutant - Pollutant name

Inhalation ADI - Acceptable daily intake for inhalation of pollutant

Ingestion ADI - Acceptable daily intake for ingestion of pollutant

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:38 VERSION: 42688

INHALATION				
RECEPTOR NUMBER 12				
POLLUTANT	70 YEARS		30.0 YEARS	
	DOSE	RISK	DOSE	RISK
BA	3.085E-12		3.085E-12	
BENZ	8.664E-09	2.513E-10	8.664E-09	1.077E-10
BE	2.700E-11	2.268E-10	2.700E-11	9.719E-11
BEHP	1.724E-09	2.414E-11	1.724E-09	1.034E-11
BRCL2M	1.214E-09	1.578E-10	1.214E-09	6.762E-11
CHBR3	4.106E-08		4.106E-08	
BBPH	1.815E-10		1.815E-10	
CCL4	1.078E-09	5.603E-11	1.078E-09	2.401E-11
CLBENZ	2.450E-09		2.450E-09	
CHCL3	2.487E-09	2.014E-10	2.487E-09	8.632E-11
CD	1.293E-12	7.888E-12	1.293E-12	3.380E-12
CR	1.087E-11	4.455E-10	1.087E-11	1.909E-10
CU	1.418E-09		1.418E-09	
DIETHP	1.599E-09		1.599E-09	
MDCBEN	1.701E-10		1.701E-10	
ODCBEN	2.189E-10		2.189E-10	
PDCBEN	1.236E-10	2.967E-12	1.236E-10	1.272E-12
ME2PHE	2.609E-09		2.609E-09	
DIOXAN	3.238E-09	3.562E-11	3.238E-09	1.526E-11
EDC	1.261E-13	9.206E-15	1.261E-13	3.946E-15
ETHGLY	5.095E-09		5.095E-09	
HEXBEN	2.949E-10	5.014E-10	2.949E-10	2.149E-10
PB	9.256E-12		9.256E-12	
HG	3.108E-10		3.108E-10	
CH2BR2	7.180E-09		7.180E-09	
CH2CL2	3.676E-09	5.882E-12	3.676E-09	2.521E-12
NAPHTH	8.961E-09		8.961E-09	
NI	8.099E-11		8.099E-11	
NO2BEN	5.445E-09		5.445E-09	
NO2PHE	2.371E-08		2.371E-08	
PFORMA	3.442E-11	1.583E-12	3.442E-11	6.785E-13
PHENOL	2.406E-09		2.406E-09	
AG	2.518E-10		2.518E-10	
TCDD	1.475E-15	2.300E-10	1.475E-15	9.859E-11
PCE	1.276E-09	4.248E-12	1.276E-09	1.821E-12
1122PC	2.006E-12		2.006E-12	
TCE	2.639E-09	4.486E-11	2.639E-09	1.923E-11
CL3BEN	2.949E-10		2.949E-10	

PATHWAY RISK -->		2.197E-09		9.417E-10

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:38 VERSION: 42688

POLLUTANT	SOIL RECEPTOR NUMBER 12			
	70 YEARS		30.0 YEARS	
	DOSE	RISK	DOSE	RISK
BA	2.119E-12		9.081E-13	
BE	1.854E-13	1.557E-12	7.946E-14	2.861E-13
BEHP	9.294E-13	1.301E-14	9.294E-13	5.577E-15
BBPH	9.783E-14		9.783E-14	
CD	8.881E-13		3.806E-13	
CR	7.463E-12		3.198E-12	
CU	9.738E-10		4.173E-10	
DIETHP	8.622E-13		8.622E-13	
ME2PHE	1.792E-09		7.679E-10	
HEXBEN	2.411E-11	4.098E-11	2.345E-11	1.709E-11
PB	6.357E-12		2.724E-12	
HG	2.134E-10		9.148E-11	
NAPHTH	3.806E-13		3.806E-13	
NI	5.562E-12		2.384E-12	
NO2BEN	3.739E-09		1.603E-09	
NO2PHE	1.628E-08		6.978E-09	
PHENOL	3.406E-13		3.406E-13	
AG	1.729E-10		7.412E-11	
TCDD	6.214E-17	9.694E-12	5.480E-17	3.664E-12
CL3BEN	3.964E-12		3.964E-12	

PATHWAY RISK ==>	5.225E-11		2.104E-11	

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:38 VERSION: 42688

POLLUTANT	PLANT			
	RECEPTOR NUMBER 12			
	70 YEARS		30.0 YEARS	
	DOSE	RISK	DOSE	RISK
BA	6.471E-12		3.747E-12	
BE	1.800E-13	1.512E-12	1.624E-13	5.845E-13
BEHP	9.800E-10	1.372E-11	9.800E-10	5.880E-12
BBPH	1.074E-10		1.073E-10	
CD	1.019E-11		4.390E-12	
CR	2.075E-12		1.061E-12	
CU	1.345E-08		6.211E-09	
DIETHP	9.017E-10		9.017E-10	
ME2PHE	2.179E-08		1.016E-08	
HEXBEN	7.091E-10	1.205E-09	6.154E-10	4.483E-10
PB	1.037E-11		7.365E-12	
HG	3.840E-09		1.744E-09	
NAPHTH	4.959E-09		4.959E-09	
NI	1.949E-11		1.091E-11	
NO2BEN	7.241E-07		3.121E-07	
NO2PHE	8.853E-07		3.869E-07	
PHENOL	1.432E-09		1.432E-09	
AG	1.525E-09		7.331E-10	
TCDD	9.560E-16	1.491E-10	7.625E-16	5.098E-11
CL3BEN	2.411E-10		2.391E-10	

PATHWAY RISK ==>		1.370E-09		5.058E-10

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:38 VERSION: 42688

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      DAIRY AND BEEF
    RECEPTOR NUMBER 12
      70 YEARS          30.0 YEARS
POLLUTANT    DOSE      RISK      DOSE      RISK
BA           3.158E-11      2.220E-11
BEHP         8.487E-09 1.188E-10  8.487E-09 5.092E-11
BPPH         8.940E-10      8.940E-10
DIETHP       7.872E-09      7.872E-09
MDCBEN       8.530E-10      8.530E-10
ODCBEN       1.098E-09      1.098E-09
PDCBEN       6.199E-10 1.488E-11  6.199E-10 6.376E-12
ME2PHE       3.105E-08      2.064E-08
HEXBEN       1.706E-09 2.901E-09  1.699E-09 1.238E-09
NO2BEN       2.458E-07      1.206E-07
NO2PHE       4.655E-07      2.661E-07
PHENOL       1.185E-08      1.185E-08
TCDD         1.504E-14 2.347E-09  1.472E-14 9.843E-10
CL3BEN       1.490E-09      1.490E-09
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PATHWAY RISK ==> 5.381E-09      2.280E-09

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:38 VERSION: 42688

DERMAL (CONTACT W/ SOIL)				
RECEPTOR NUMBER 12				
70 YEARS				
POLLUTANT	DOSE	RISK	DOSE	RISK
BA	6.311E-13		2.705E-13	
BE	5.522E-12	4.639E-11	2.367E-12	8.520E-12
BEHP	2.768E-13	3.876E-15	2.768E-13	1.661E-15
BBPH	2.914E-14		2.914E-14	
CD	2.645E-13		1.134E-13	
CR	2.223E-12		9.527E-13	
CU	2.900E-10		1.243E-10	
DIETHP	2.568E-13		2.568E-13	
ME2PHE	5.337E-10		2.287E-10	
HEXBEN	7.180E-12	1.221E-11	6.986E-12	5.090E-12
PB	1.893E-12		8.115E-13	
HG	6.358E-11		2.725E-11	
NAPHTH	1.134E-13		1.134E-13	
NI	1.657E-11		7.100E-12	
NO2BEN	1.114E-09		4.773E-10	
NO2PHE	4.850E-09		2.078E-09	
PHENOL	1.014E-13		1.014E-13	
AG	5.151E-11		2.208E-11	
TCDD	6.170E-17	9.624E-12	5.441E-17	3.637E-12
CL3BEN	1.181E-12		1.181E-12	

PATHWAY RISK -->	6.822E-11		1.725E-11	

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:38 VERSION: 42688

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      DRINKING WATER
      RECEPTOR NUMBER 12
      70 YEARS          30.0 YEARS
POLLUTANT  DOSE      RISK      DOSE      RISK
BA          5.203E-14      2.230E-14
BE          4.553E-13  3.824E-12  1.951E-13  3.824E-12
BEHP        2.908E-11  4.071E-13  1.246E-11  4.071E-13
BBPH        3.061E-12      1.312E-12
CD          2.181E-14      9.346E-15
CR          1.833E-13      7.854E-14
CU          2.391E-11      1.025E-11
DIETHP      2.697E-11      1.156E-11
ME2PHE      4.400E-11      1.886E-11
HEXBEN      4.974E-12  8.455E-12  2.132E-12  8.455E-12
PB          1.561E-13      6.690E-14
HG          5.241E-12      2.246E-12
NAPHTH      1.511E-10      6.477E-11
NI          1.366E-12      5.854E-13
NO2BEN      9.182E-11      3.935E-11
NO2PHE      3.998E-10      1.713E-10
PHENOL      4.056E-11      1.738E-11
AG          4.247E-12      1.820E-12
TCDD       7.461E-18  3.879E-12  3.197E-18  3.879E-12
CL3BEN      4.974E-12      2.132E-12
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PATHWAY RISK ==>  1.657E-11      1.657E-11

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:39 VERSION: 42688

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      MOTHERS MILK
      RECEPTOR NUMBER 12
      70 YEARS          30.0 YEARS
POLLUTANT  DOSE    RISK    DOSE    RISK
BEHP      1.891E-12  2.647E-14  4.406E-12  2.644E-14
BBPH      1.999E-13              4.657E-13
DIETHP    1.753E-12              4.084E-12
PDCBEN    1.342E-12  3.222E-14  3.132E-12  3.222E-14
ME2PHE    1.044E-11              1.450E-11
HEXBEN    5.510E-10  9.367E-10  1.237E-09  9.011E-10
NAPHTH    1.796E-11              4.166E-11
NO2BEN    5.387E-10              5.645E-10
NO2PHE    1.260E-09              1.445E-09
PHENOL    1.420E-11              3.307E-11
TCDD      8.406E-15  1.311E-09  1.902E-14  1.272E-09
CL3BEN    7.797E-12              1.815E-11
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PATHWAY RISK -->  2.248E-09          2.173E-09

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:39 VERSION: 42688

RISK TABLE FOR RECEPTOR : 12

POLLUTANT	INHALATION	SOIL	PLANT	FISH	DAIRY	DERMAL	WATER	HUMAN MILK	TOTAL
BENZ	2.513E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.513E-10
BE	2.268E-10	1.557E-12	1.512E-12	0.000E+00	0.000E+00	4.639E-11	3.824E-12	0.000E+00	2.800E-10
BEHP	2.414E-11	1.301E-14	1.372E-11	0.000E+00	1.188E-10	3.876E-15	4.071E-13	2.647E-14	1.571E-10
BRCL2M	1.578E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.578E-10
CCL4	5.603E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.603E-11
CHCL3	2.014E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.014E-10
CD	7.888E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.888E-12
CR	4.455E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.455E-10
PDCBEN	2.967E-12	0.000E+00	0.000E+00	0.000E+00	1.488E-11	0.000E+00	0.000E+00	3.222E-14	1.788E-11
DIOXAN	3.562E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.562E-11
EDC	9.206E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.206E-15
HEXBEN	5.014E-10	4.098E-11	1.205E-09	0.000E+00	2.901E-09	1.221E-11	8.455E-12	9.367E-10	5.606E-09
CH2CL2	5.882E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.882E-12
PFORMA	1.583E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.583E-12
TCDD	2.300E-10	9.694E-12	1.491E-10	0.000E+00	2.347E-09	9.624E-12	3.879E-12	1.311E-09	4.060E-09
PCE	4.248E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.248E-12
TCE	4.486E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.486E-11

TOTAL -	2.197E-09	5.225E-11	1.370E-09	0.000E+00	5.381E-09	6.822E-11	1.657E-11	2.248E-09	1.133E-08

*** TOTAL 30.0 YR RISK ==> 5.955E-09 ***

*** TOTAL 70.0 YR RISK ==> 1.133E-08 ***

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:39 VERSION: 42688

Pollutant Name	Inhalation Exposure	Inhalation ADI	Safety Factor	Ingestion Exposure	Ingestion ADI	Safety Factor
BA	3.09E-12	1.00E-01	3.24E+10	4.09E-11	5.00E-02	1.22E+09
BENZ	8.66E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BE	2.70E-11	0.00E+00	0.00E+00	4.25E-11	5.00E-03	1.18E+08
BEHP	1.72E-09	0.00E+00	0.00E+00	9.50E-09	2.00E-02	2.11E+06
BRCL2M	1.21E-09	0.00E+00	0.00E+00	0.00E+00	2.00E-02	0.00E+00
CHBR3	4.11E-08	3.40E-03	8.28E+04	0.00E+00	2.00E-02	0.00E+00
BBPH	1.81E-10	2.00E-01	1.10E+09	1.00E-09	2.00E-01	1.99E+08
CCL4	1.08E-09	0.00E+00	0.00E+00	0.00E+00	7.00E-04	0.00E+00
CLBENZ	2.45E-09	5.00E-03	2.04E+06	0.00E+00	2.00E-02	0.00E+00
CHCL3	2.49E-09	0.00E+00	0.00E+00	0.00E+00	1.00E-02	0.00E+00
CD	1.29E-12	0.00E+00	0.00E+00	1.20E-11	3.00E-04	2.49E+07
CR	1.09E-11	0.00E+00	0.00E+00	1.76E-11	5.00E-03	2.83E+08
CU	1.42E-09	1.40E-04	9.87E+04	1.47E-08	8.60E-02	5.84E+06
DIETHP	1.60E-09	3.40E-03	2.13E+06	8.80E-09	8.00E-01	9.09E+07
MDCBEN	1.70E-10	4.00E-02	2.35E+08	8.53E-10	9.00E-02	1.06E+08
ODCBEN	2.19E-10	4.00E-02	1.83E+08	1.10E-09	9.00E-02	8.20E+07
PDCBEN	1.24E-10	2.00E-01	1.62E+09	6.21E-10	0.00E+00	0.00E+00
ME2PHE	2.61E-09	6.00E-04	2.30E+05	5.52E-08	6.00E-04	1.09E+04
DIOXAN	3.24E-09	6.10E-02	1.88E+07	0.00E+00	0.00E+00	0.00E+00
EDC	1.26E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ETHGLY	5.10E-09	8.50E-02	1.67E+07	0.00E+00	2.00E+00	0.00E+00
HEXBEN	2.95E-10	0.00E+00	0.00E+00	3.00E-09	0.00E+00	0.00E+00
PB	9.26E-12	4.30E-04	4.65E+07	1.88E-11	1.40E-03	7.46E+07
HG	3.11E-10	6.80E-05	2.19E+05	4.12E-09	3.00E-04	7.28E+04
CH2BR2	7.18E-09	2.50E-01	3.48E+07	0.00E+00	2.50E-01	0.00E+00
CH2CL2	3.68E-09	8.60E-01	2.34E+08	0.00E+00	6.00E-02	0.00E+00
NAPHTH	8.96E-09	3.40E-02	3.79E+06	5.13E-09	4.00E-01	7.80E+07
NI	8.10E-11	6.80E-05	8.40E+05	2.68E-10	2.00E-02	7.45E+07
NO2BEN	5.44E-09	6.00E-04	1.10E+05	9.75E-07	5.00E-04	5.13E+02
NO2PHE	2.37E-08	6.50E-04	2.74E+04	1.37E-06	6.50E-04	4.73E+02
PFORMA	3.44E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PHENOL	2.41E-09	1.30E-02	5.40E+06	1.33E-08	6.00E-01	4.50E+07
AG	2.52E-10	6.80E-06	2.70E+04	1.75E-09	3.00E-03	1.71E+06
TCDD	1.47E-15	0.00E+00	0.00E+00	1.56E-14	0.00E+00	0.00E+00
PCE	1.28E-09	0.00E+00	0.00E+00	0.00E+00	1.00E-02	0.00E+00
1122PC	2.01E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TCE	2.64E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CL3BEN	2.95E-10	3.00E-03	1.02E+07	1.75E-09	2.00E-02	1.14E+07

POLLUTANT - Pollutant identifier

INHALATION EXPOSURE - Exposure through inhalation of pollutant

INHALATION ADI - Inhalation Acceptable Daily Intake

INHALATION SAFETY FACTOR - ADI divided by exposure

INGESTION EXPOSURE - Exposure through all pathways other than inhalation

INGESTION ADI - Ingestion Acceptable Daily Intake

INGESTION SAFETY FACTOR - ADI divided by exposure

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:53 VERSION: 42688

MAXIMUM TOTAL 30.00 YR RISK --> 6.51E-09 ***

MAXIMUM TOTAL 70.0 YR RISK --> 1.25E-08 ***

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:53 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
1	0.	9.04E-10	2.12E-11	5.56E-10	0.00E+00	5.38E-09	2.77E-11	1.66E-11	1.93E-09	8.83E-09	0.00E+00
2	0.	4.03E-10	8.75E-12	2.29E-10	0.00E+00	5.38E-09	1.14E-11	1.66E-11	1.80E-09	7.85E-09	0.00E+00
3	0.	4.28E-10	1.02E-11	2.67E-10	0.00E+00	5.38E-09	1.33E-11	1.66E-11	1.81E-09	7.93E-09	0.00E+00
4	0.	5.95E-10	1.43E-11	3.76E-10	0.00E+00	5.38E-09	1.87E-11	1.66E-11	1.85E-09	8.26E-09	0.00E+00
5	0.	5.43E-10	1.31E-11	3.43E-10	0.00E+00	5.38E-09	1.71E-11	1.66E-11	1.84E-09	8.15E-09	0.00E+00
6	0.	4.03E-10	9.74E-12	2.55E-10	0.00E+00	5.38E-09	1.27E-11	1.66E-11	1.81E-09	7.88E-09	0.00E+00
7	0.	3.00E-10	7.24E-12	1.90E-10	0.00E+00	5.38E-09	9.45E-12	1.66E-11	1.78E-09	7.68E-09	0.00E+00
8	0.	2.33E-10	5.63E-12	1.48E-10	0.00E+00	5.38E-09	7.36E-12	1.66E-11	1.76E-09	7.55E-09	0.00E+00
9	0.	1.86E-10	4.51E-12	1.18E-10	0.00E+00	5.38E-09	5.89E-12	1.66E-11	1.75E-09	7.46E-09	0.00E+00
10	0.	2.22E-10	1.11E-12	2.90E-11	0.00E+00	5.38E-09	1.44E-12	1.66E-11	1.72E-09	7.37E-09	0.00E+00
11	0.	2.43E-09	5.25E-11	1.38E-09	0.00E+00	5.38E-09	6.86E-11	1.66E-11	2.25E-09	1.16E-08	0.00E+00
12	0.	2.20E-09	5.22E-11	1.37E-09	0.00E+00	5.38E-09	6.82E-11	1.66E-11	2.25E-09	1.13E-08	0.00E+00
13	0.	1.32E-09	3.18E-11	8.33E-10	0.00E+00	5.38E-09	4.15E-11	1.66E-11	2.03E-09	9.66E-09	0.00E+00
14	0.	9.98E-10	2.41E-11	6.31E-10	0.00E+00	5.38E-09	3.14E-11	1.66E-11	1.96E-09	9.04E-09	0.00E+00
15	0.	6.43E-10	1.56E-11	4.09E-10	0.00E+00	5.38E-09	2.04E-11	1.66E-11	1.87E-09	8.35E-09	0.00E+00
16	0.	4.25E-10	1.03E-11	2.69E-10	0.00E+00	5.38E-09	1.34E-11	1.66E-11	1.81E-09	7.93E-09	0.00E+00
17	0.	2.98E-10	7.24E-12	1.90E-10	0.00E+00	5.38E-09	9.45E-12	1.66E-11	1.78E-09	7.68E-09	0.00E+00
18	0.	2.21E-10	5.34E-12	1.40E-10	0.00E+00	5.38E-09	6.82E-12	1.66E-11	1.76E-09	7.53E-09	0.00E+00
19	0.	4.82E-11	7.57E-13	1.98E-11	0.00E+00	5.38E-09	9.88E-13	1.66E-11	1.71E-09	7.18E-09	0.00E+00
20	0.	9.67E-11	1.91E-12	5.00E-11	0.00E+00	5.38E-09	2.49E-12	1.66E-11	1.72E-09	7.27E-09	0.00E+00
21	0.	1.31E-09	3.09E-11	8.11E-10	0.00E+00	5.38E-09	4.04E-11	1.66E-11	2.03E-09	9.61E-09	0.00E+00
22	0.	1.11E-09	2.66E-11	6.97E-10	0.00E+00	5.38E-09	3.47E-11	1.66E-11	1.98E-09	9.25E-09	0.00E+00
23	0.	8.92E-10	2.14E-11	5.61E-10	0.00E+00	5.38E-09	2.79E-11	1.66E-11	1.93E-09	8.83E-09	0.00E+00
24	0.	7.63E-10	1.84E-11	4.83E-10	0.00E+00	5.38E-09	2.41E-11	1.66E-11	1.90E-09	8.58E-09	0.00E+00
25	0.	4.75E-10	1.14E-11	3.00E-10	0.00E+00	5.38E-09	1.50E-11	1.66E-11	1.82E-09	8.02E-09	0.00E+00
26	0.	3.51E-10	8.49E-12	2.23E-10	0.00E+00	5.38E-09	1.11E-11	1.66E-11	1.79E-09	7.78E-09	0.00E+00
27	0.	2.63E-10	6.34E-12	1.66E-10	0.00E+00	5.38E-09	8.28E-12	1.66E-11	1.77E-09	7.61E-09	0.00E+00
28	0.	3.46E-11	6.78E-13	1.78E-11	0.00E+00	5.38E-09	8.85E-13	1.66E-11	1.71E-09	7.16E-09	0.00E+00
29	0.	5.66E-11	1.19E-12	3.12E-11	0.00E+00	5.38E-09	1.56E-12	1.66E-11	1.72E-09	7.21E-09	0.00E+00
30	0.	2.01E-10	4.63E-12	1.21E-10	0.00E+00	5.38E-09	6.04E-12	1.66E-11	1.75E-09	7.48E-09	0.00E+00
31	0.	7.99E-10	1.90E-11	4.99E-10	0.00E+00	5.38E-09	2.48E-11	1.66E-11	1.90E-09	8.64E-09	0.00E+00
32	0.	9.16E-10	2.20E-11	5.76E-10	0.00E+00	5.38E-09	2.87E-11	1.66E-11	1.93E-09	8.87E-09	0.00E+00
33	0.	8.18E-10	1.98E-11	5.19E-10	0.00E+00	5.38E-09	2.59E-11	1.66E-11	1.91E-09	8.69E-09	0.00E+00
34	0.	5.61E-10	1.35E-11	3.54E-10	0.00E+00	5.38E-09	1.76E-11	1.66E-11	1.85E-09	8.19E-09	0.00E+00
35	0.	3.86E-10	9.34E-12	2.45E-10	0.00E+00	5.38E-09	1.22E-11	1.66E-11	1.80E-09	7.85E-09	0.00E+00
36	0.	2.83E-10	6.84E-12	1.79E-10	0.00E+00	5.38E-09	8.94E-12	1.66E-11	1.78E-09	7.65E-09	0.00E+00
37	0.	3.41E-11	7.30E-13	1.92E-11	0.00E+00	5.38E-09	9.54E-13	1.66E-11	1.71E-09	7.16E-09	0.00E+00
38	0.	5.58E-11	1.24E-12	3.26E-11	0.00E+00	5.38E-09	1.62E-12	1.66E-11	1.72E-09	7.21E-09	0.00E+00
39	0.	9.35E-11	2.16E-12	5.68E-11	0.00E+00	5.38E-09	2.83E-12	1.66E-11	1.73E-09	7.28E-09	0.00E+00
40	0.	3.41E-10	8.09E-12	2.12E-10	0.00E+00	5.38E-09	1.06E-11	1.66E-11	1.79E-09	7.76E-09	0.00E+00
41	0.	7.13E-10	1.72E-11	4.50E-10	0.00E+00	5.38E-09	2.24E-11	1.66E-11	1.88E-09	8.48E-09	0.00E+00
42	0.	8.61E-10	2.08E-11	5.45E-10	0.00E+00	5.38E-09	2.72E-11	1.66E-11	1.92E-09	8.77E-09	0.00E+00
43	0.	5.62E-10	1.36E-11	3.57E-10	0.00E+00	5.38E-09	1.78E-11	1.66E-11	1.85E-09	8.19E-09	0.00E+00
44	0.	4.27E-10	1.03E-11	2.71E-10	0.00E+00	5.38E-09	1.35E-11	1.66E-11	1.81E-09	7.93E-09	0.00E+00
45	0.	3.16E-10	7.63E-12	2.00E-10	0.00E+00	5.38E-09	9.97E-12	1.66E-11	1.78E-09	7.71E-09	0.00E+00
46	0.	3.30E-11	7.37E-13	1.93E-11	0.00E+00	5.38E-09	9.62E-13	1.66E-11	1.71E-09	7.16E-09	0.00E+00
47	0.	5.67E-11	1.30E-12	3.40E-11	0.00E+00	5.38E-09	1.69E-12	1.66E-11	1.72E-09	7.21E-09	0.00E+00
48	0.	8.29E-11	1.93E-12	5.05E-11	0.00E+00	5.38E-09	2.52E-12	1.66E-11	1.72E-09	7.26E-09	0.00E+00
49	0.	2.13E-10	5.07E-12	1.33E-10	0.00E+00	5.38E-09	6.62E-12	1.66E-11	1.76E-09	7.51E-09	0.00E+00
50	0.	4.97E-10	1.20E-11	3.14E-10	0.00E+00	5.38E-09	1.56E-11	1.66E-11	1.83E-09	8.06E-09	0.00E+00
51	0.	7.89E-10	1.91E-11	5.02E-10	0.00E+00	5.38E-09	2.50E-11	1.66E-11	1.90E-09	8.64E-09	0.00E+00
52	0.	5.16E-10	1.24E-11	3.26E-10	0.00E+00	5.38E-09	1.62E-11	1.66E-11	1.83E-09	8.10E-09	0.00E+00
53	0.	4.28E-10	1.03E-11	2.71E-10	0.00E+00	5.38E-09	1.35E-11	1.66E-11	1.81E-09	7.93E-09	0.00E+00
54	0.	3.31E-10	7.96E-12	2.09E-10	0.00E+00	5.38E-09	1.04E-11	1.66E-11	1.79E-09	7.74E-09	0.00E+00
55	0.	3.61E-11	8.29E-13	2.17E-11	0.00E+00	5.38E-09	1.08E-12	1.66E-11	1.71E-09	7.17E-09	0.00E+00

89/11/29
15:39:36

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plausible3.out

*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:53 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
56	0.	5.24E-11	1.22E-12	3.19E-11	0.00E+00	5.38E-09	1.59E-12	1.66E-11	1.72E-09	7.20E-09	0.00E+00
57	0.	7.68E-11	1.80E-12	4.71E-11	0.00E+00	5.38E-09	2.35E-12	1.66E-11	1.72E-09	7.25E-09	0.00E+00
58	0.	1.41E-10	3.36E-12	8.82E-11	0.00E+00	5.38E-09	4.39E-12	1.66E-11	1.74E-09	7.37E-09	0.00E+00
59	0.	3.05E-10	7.37E-12	1.93E-10	0.00E+00	5.38E-09	9.62E-12	1.66E-11	1.78E-09	7.69E-09	0.00E+00
60	0.	5.25E-10	1.27E-11	3.33E-10	0.00E+00	5.38E-09	1.66E-11	1.66E-11	1.84E-09	8.12E-09	0.00E+00
61	0.	3.98E-10	9.61E-12	2.52E-10	0.00E+00	5.38E-09	1.25E-11	1.66E-11	1.80E-09	7.87E-09	0.00E+00
62	0.	3.66E-10	8.82E-12	2.31E-10	0.00E+00	5.38E-09	1.15E-11	1.66E-11	1.80E-09	7.81E-09	0.00E+00
63	0.	3.25E-10	7.83E-12	2.05E-10	0.00E+00	5.38E-09	1.02E-11	1.66E-11	1.79E-09	7.73E-09	0.00E+00
64	0.	2.39E-10	5.76E-12	1.51E-10	0.00E+00	5.38E-09	7.53E-12	1.66E-11	1.76E-09	7.57E-09	0.00E+00
65	0.	5.73E-11	1.36E-12	3.55E-11	0.00E+00	5.38E-09	1.77E-12	1.66E-11	1.72E-09	7.21E-09	0.00E+00
66	0.	5.99E-11	1.41E-12	3.71E-11	0.00E+00	5.38E-09	1.85E-12	1.66E-11	1.72E-09	7.22E-09	0.00E+00
67	0.	6.58E-11	1.57E-12	4.11E-11	0.00E+00	5.38E-09	2.04E-12	1.66E-11	1.72E-09	7.23E-09	0.00E+00
68	0.	7.02E-11	1.68E-12	4.40E-11	0.00E+00	5.38E-09	2.19E-12	1.66E-11	1.72E-09	7.24E-09	0.00E+00
69	0.	7.18E-11	1.70E-12	4.47E-11	0.00E+00	5.38E-09	2.23E-12	1.66E-11	1.72E-09	7.24E-09	0.00E+00
70	0.	7.01E-11	1.67E-12	4.38E-11	0.00E+00	5.38E-09	2.18E-12	1.66E-11	1.72E-09	7.24E-09	0.00E+00
71	0.	6.73E-11	1.61E-12	4.21E-11	0.00E+00	5.38E-09	2.10E-12	1.66E-11	1.72E-09	7.23E-09	0.00E+00
72	0.	6.22E-11	1.49E-12	3.90E-11	0.00E+00	5.38E-09	1.94E-12	1.66E-11	1.72E-09	7.22E-09	0.00E+00
73	0.	5.83E-11	1.39E-12	3.66E-11	0.00E+00	5.38E-09	1.82E-12	1.66E-11	1.72E-09	7.21E-09	0.00E+00
74	0.	4.50E-11	1.09E-12	2.85E-11	0.00E+00	5.38E-09	1.42E-12	1.66E-11	1.72E-09	7.19E-09	0.00E+00
75	0.	3.59E-11	8.29E-13	2.17E-11	0.00E+00	5.38E-09	1.08E-12	1.66E-11	1.71E-09	7.17E-09	0.00E+00
76	0.	3.93E-11	9.01E-13	2.36E-11	0.00E+00	5.38E-09	1.18E-12	1.66E-11	1.71E-09	7.18E-09	0.00E+00
77	0.	4.33E-11	9.94E-13	2.61E-11	0.00E+00	5.38E-09	1.30E-12	1.66E-11	1.71E-09	7.18E-09	0.00E+00
78	0.	5.23E-11	1.20E-12	3.14E-11	0.00E+00	5.38E-09	1.56E-12	1.66E-11	1.72E-09	7.20E-09	0.00E+00
79	0.	6.40E-11	1.46E-12	3.83E-11	0.00E+00	5.38E-09	1.91E-12	1.66E-11	1.72E-09	7.22E-09	0.00E+00
80	0.	7.35E-11	1.68E-12	4.40E-11	0.00E+00	5.38E-09	2.19E-12	1.66E-11	1.72E-09	7.24E-09	0.00E+00
81	0.	8.12E-11	1.84E-12	4.83E-11	0.00E+00	5.38E-09	2.41E-12	1.66E-11	1.72E-09	7.26E-09	0.00E+00
82	0.	8.98E-11	2.03E-12	5.31E-11	0.00E+00	5.38E-09	2.65E-12	1.66E-11	1.73E-09	7.27E-09	0.00E+00
83	0.	9.48E-11	2.12E-12	5.56E-11	0.00E+00	5.38E-09	2.77E-12	1.66E-11	1.73E-09	7.28E-09	0.00E+00
84	0.	9.12E-11	2.03E-12	5.31E-11	0.00E+00	5.38E-09	2.65E-12	1.66E-11	1.73E-09	7.27E-09	0.00E+00
85	0.	9.27E-11	2.05E-12	5.38E-11	0.00E+00	5.38E-09	2.68E-12	1.66E-11	1.73E-09	7.27E-09	0.00E+00
86	0.	8.58E-11	1.91E-12	5.02E-11	0.00E+00	5.38E-09	2.50E-12	1.66E-11	1.72E-09	7.26E-09	0.00E+00
87	0.	8.61E-11	1.94E-12	5.09E-11	0.00E+00	5.38E-09	2.53E-12	1.66E-11	1.72E-09	7.26E-09	0.00E+00
88	0.	8.75E-11	1.99E-12	5.21E-11	0.00E+00	5.38E-09	2.59E-12	1.66E-11	1.73E-09	7.27E-09	0.00E+00
89	0.	9.13E-11	2.11E-12	5.52E-11	0.00E+00	5.38E-09	2.75E-12	1.66E-11	1.73E-09	7.28E-09	0.00E+00
90	0.	8.96E-11	2.10E-12	5.50E-11	0.00E+00	5.38E-09	2.74E-12	1.66E-11	1.73E-09	7.27E-09	0.00E+00
91	0.	3.65E-11	8.55E-13	2.24E-11	0.00E+00	5.38E-09	1.12E-12	1.66E-11	1.71E-09	7.17E-09	0.00E+00
92	0.	4.37E-11	1.02E-12	2.67E-11	0.00E+00	5.38E-09	1.33E-12	1.66E-11	1.72E-09	7.19E-09	0.00E+00
93	0.	6.20E-11	1.44E-12	3.78E-11	0.00E+00	5.38E-09	1.88E-12	1.66E-11	1.72E-09	7.22E-09	0.00E+00
94	0.	7.35E-11	1.71E-12	4.49E-11	0.00E+00	5.38E-09	2.23E-12	1.66E-11	1.72E-09	7.24E-09	0.00E+00
95	0.	8.91E-11	2.07E-12	5.42E-11	0.00E+00	5.38E-09	2.70E-12	1.66E-11	1.73E-09	7.27E-09	0.00E+00
96	0.	9.30E-11	2.15E-12	5.64E-11	0.00E+00	5.38E-09	2.81E-12	1.66E-11	1.73E-09	7.28E-09	0.00E+00
97	0.	9.33E-11	2.15E-12	5.64E-11	0.00E+00	5.38E-09	2.81E-12	1.66E-11	1.73E-09	7.28E-09	0.00E+00
98	0.	7.62E-11	1.76E-12	4.61E-11	0.00E+00	5.38E-09	2.29E-12	1.66E-11	1.72E-09	7.25E-09	0.00E+00
99	0.	7.15E-11	1.66E-12	4.35E-11	0.00E+00	5.38E-09	2.17E-12	1.66E-11	1.72E-09	7.24E-09	0.00E+00
100	0.	6.56E-11	1.53E-12	4.02E-11	0.00E+00	5.38E-09	2.00E-12	1.66E-11	1.72E-09	7.23E-09	0.00E+00
101	0.	7.66E-11	1.82E-12	4.78E-11	0.00E+00	5.38E-09	2.38E-12	1.66E-11	1.72E-09	7.25E-09	0.00E+00
102	0.	8.56E-11	2.03E-12	5.33E-11	0.00E+00	5.38E-09	2.66E-12	1.66E-11	1.73E-09	7.27E-09	0.00E+00
103	0.	1.02E-10	2.41E-12	6.33E-11	0.00E+00	5.38E-09	3.15E-12	1.66E-11	1.73E-09	7.30E-09	0.00E+00
104	0.	1.24E-10	2.93E-12	7.68E-11	0.00E+00	5.38E-09	3.82E-12	1.66E-11	1.74E-09	7.34E-09	0.00E+00
105	0.	1.54E-10	3.63E-12	9.51E-11	0.00E+00	5.38E-09	4.73E-12	1.66E-11	1.74E-09	7.40E-09	0.00E+00
106	0.	1.85E-10	4.36E-12	1.14E-10	0.00E+00	5.38E-09	5.69E-12	1.66E-11	1.75E-09	7.46E-09	0.00E+00
107	0.	2.73E-10	6.44E-12	1.69E-10	0.00E+00	5.38E-09	8.41E-12	1.66E-11	1.77E-09	7.63E-09	0.00E+00
108	0.	4.47E-10	1.06E-11	2.78E-10	0.00E+00	5.38E-09	1.38E-11	1.66E-11	1.81E-09	7.96E-09	0.00E+00
109	0.	5.06E-10	1.20E-11	3.16E-10	0.00E+00	5.38E-09	1.57E-11	1.66E-11	1.83E-09	8.08E-09	0.00E+00
110	0.	4.07E-10	9.67E-12	2.54E-10	0.00E+00	5.38E-09	1.26E-11	1.66E-11	1.81E-09	7.89E-09	0.00E+00
111	0.	2.57E-10	6.13E-12	1.61E-10	0.00E+00	5.38E-09	8.00E-12	1.66E-11	1.77E-09	7.60E-09	0.00E+00
112	0.	2.89E-10	6.97E-12	1.83E-10	0.00E+00	5.38E-09	9.11E-12	1.66E-11	1.78E-09	7.66E-09	0.00E+00

*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:53 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
113	0.	2.35E-10	5.65E-12	1.48E-10	0.00E+00	5.38E-09	7.38E-12	1.66E-11	1.76E-09	7.56E-09	0.00E+00
114	0.	1.88E-10	4.54E-12	1.19E-10	0.00E+00	5.38E-09	5.93E-12	1.66E-11	1.75E-09	7.47E-09	0.00E+00
115	0.	8.17E-11	1.94E-12	5.09E-11	0.00E+00	5.38E-09	2.53E-12	1.66E-11	1.72E-09	7.26E-09	0.00E+00
116	0.	8.72E-11	2.09E-12	5.47E-11	0.00E+00	5.38E-09	2.72E-12	1.66E-11	1.73E-09	7.27E-09	0.00E+00
117	0.	9.89E-11	2.35E-12	6.16E-11	0.00E+00	5.38E-09	3.07E-12	1.66E-11	1.73E-09	7.29E-09	0.00E+00
118	0.	1.16E-10	2.77E-12	7.26E-11	0.00E+00	5.38E-09	3.62E-12	1.66E-11	1.73E-09	7.33E-09	0.00E+00
119	0.	1.57E-10	3.74E-12	9.82E-11	0.00E+00	5.38E-09	4.89E-12	1.66E-11	1.74E-09	7.40E-09	0.00E+00
120	0.	2.15E-10	5.14E-12	1.35E-10	0.00E+00	5.38E-09	6.71E-12	1.66E-11	1.76E-09	7.52E-09	0.00E+00
121	0.	2.36E-10	5.65E-12	1.48E-10	0.00E+00	5.38E-09	7.38E-12	1.66E-11	1.76E-09	7.56E-09	0.00E+00
122	0.	2.54E-10	6.07E-12	1.59E-10	0.00E+00	5.38E-09	7.92E-12	1.66E-11	1.77E-09	7.59E-09	0.00E+00
123	0.	2.83E-10	6.78E-12	1.78E-10	0.00E+00	5.38E-09	8.85E-12	1.66E-11	1.78E-09	7.65E-09	0.00E+00
124	0.	3.64E-10	8.75E-12	2.29E-10	0.00E+00	5.38E-09	1.14E-11	1.66E-11	1.80E-09	7.81E-09	0.00E+00
125	0.	2.55E-10	6.15E-12	1.61E-10	0.00E+00	5.38E-09	8.03E-12	1.66E-11	1.77E-09	7.60E-09	0.00E+00
126	0.	1.70E-10	4.10E-12	1.07E-10	0.00E+00	5.38E-09	5.35E-12	1.66E-11	1.75E-09	7.43E-09	0.00E+00
127	0.	1.11E-10	2.68E-12	7.02E-11	0.00E+00	5.38E-09	3.50E-12	1.66E-11	1.73E-09	7.32E-09	0.00E+00
128	0.	7.64E-11	1.85E-12	4.85E-11	0.00E+00	5.38E-09	2.41E-12	1.66E-11	1.72E-09	7.25E-09	0.00E+00
129	436.	1.07E-11	2.58E-13	6.76E-12	0.00E+00	5.38E-09	3.37E-13	1.66E-11	1.71E-09	7.12E-09	0.00E+00
130	436.	1.07E-11	3.01E-13	7.88E-12	0.00E+00	5.38E-09	3.93E-13	1.66E-11	1.71E-09	7.13E-09	0.00E+00
131	436.	2.98E-11	7.17E-13	1.88E-11	0.00E+00	5.38E-09	9.37E-13	1.66E-11	1.71E-09	7.16E-09	0.00E+00
132	436.	1.23E-11	2.97E-13	7.78E-12	0.00E+00	5.38E-09	3.88E-13	1.66E-11	1.71E-09	7.13E-09	0.00E+00
133	436.	4.50E-11	1.09E-12	2.85E-11	0.00E+00	5.38E-09	1.42E-12	1.66E-11	1.72E-09	7.19E-09	0.00E+00
134	436.	5.66E-10	1.37E-11	3.59E-10	0.00E+00	5.38E-09	1.79E-11	1.66E-11	1.85E-09	8.20E-09	0.00E+00
135	436.	2.08E-11	4.96E-13	1.30E-11	0.00E+00	5.38E-09	6.48E-13	1.66E-11	1.71E-09	7.14E-09	0.00E+00
136	436.	2.45E-11	5.89E-13	1.54E-11	0.00E+00	5.38E-09	7.69E-13	1.66E-11	1.71E-09	7.15E-09	0.00E+00
137	436.	1.31E-11	3.17E-13	8.30E-12	0.00E+00	5.38E-09	4.13E-13	1.66E-11	1.71E-09	7.13E-09	0.00E+00
138	1090.	3.94E-11	9.48E-13	2.48E-11	0.00E+00	5.38E-09	1.24E-12	1.66E-11	1.71E-09	7.18E-09	0.00E+00
139	1090.	9.77E-11	2.36E-12	6.19E-11	0.00E+00	5.38E-09	3.08E-12	1.66E-11	1.73E-09	7.29E-09	0.00E+00
140	1090.	2.26E-11	5.38E-13	1.41E-11	0.00E+00	5.38E-09	7.02E-13	1.66E-11	1.71E-09	7.15E-09	0.00E+00
141	1090.	3.03E-11	7.24E-13	1.90E-11	0.00E+00	5.38E-09	9.45E-13	1.66E-11	1.71E-09	7.16E-09	0.00E+00
142	1090.	2.18E-11	5.22E-13	1.37E-11	0.00E+00	5.38E-09	6.81E-13	1.66E-11	1.71E-09	7.14E-09	0.00E+00
143	1090.	8.34E-11	2.00E-12	5.24E-11	0.00E+00	5.38E-09	2.61E-12	1.66E-11	1.73E-09	7.26E-09	0.00E+00
144	1090.	3.34E-11	8.03E-13	2.10E-11	0.00E+00	5.38E-09	1.05E-12	1.66E-11	1.71E-09	7.17E-09	0.00E+00
145	1090.	2.05E-11	4.92E-13	1.29E-11	0.00E+00	5.38E-09	6.43E-13	1.66E-11	1.71E-09	7.14E-09	0.00E+00
146	5378.	1.21E-11	2.91E-13	7.64E-12	0.00E+00	5.38E-09	3.81E-13	1.66E-11	1.71E-09	7.13E-09	0.00E+00
147	5378.	1.14E-11	2.73E-13	7.16E-12	0.00E+00	5.38E-09	3.57E-13	1.66E-11	1.71E-09	7.12E-09	0.00E+00
148	3578.	1.63E-11	3.91E-13	1.02E-11	0.00E+00	5.38E-09	5.10E-13	1.66E-11	1.71E-09	7.13E-09	0.00E+00
149	3860.	1.46E-11	3.50E-13	9.18E-12	0.00E+00	5.38E-09	4.57E-13	1.66E-11	1.71E-09	7.13E-09	0.00E+00
150	3860.	2.34E-11	5.59E-13	1.47E-11	0.00E+00	5.38E-09	7.30E-13	1.66E-11	1.71E-09	7.15E-09	0.00E+00
151	3860.	1.79E-11	4.28E-13	1.12E-11	0.00E+00	5.38E-09	5.59E-13	1.66E-11	1.71E-09	7.14E-09	0.00E+00
152	3860.	6.04E-11	1.45E-12	3.80E-11	0.00E+00	5.38E-09	1.89E-12	1.66E-11	1.72E-09	7.22E-09	0.00E+00
153	3860.	1.08E-10	2.59E-12	6.80E-11	0.00E+00	5.38E-09	3.39E-12	1.66E-11	1.73E-09	7.31E-09	0.00E+00
154	3073.	3.07E-11	7.30E-13	1.92E-11	0.00E+00	5.38E-09	9.54E-13	1.66E-11	1.71E-09	7.16E-09	0.00E+00
155	3073.	5.27E-11	1.24E-12	3.26E-11	0.00E+00	5.38E-09	1.62E-12	1.66E-11	1.72E-09	7.20E-09	0.00E+00
156	3073.	4.27E-11	1.03E-12	2.69E-11	0.00E+00	5.38E-09	1.34E-12	1.66E-11	1.72E-09	7.18E-09	0.00E+00
157	3073.	5.21E-11	1.24E-12	3.26E-11	0.00E+00	5.38E-09	1.62E-12	1.66E-11	1.72E-09	7.20E-09	0.00E+00
158	3073.	5.59E-11	1.34E-12	3.50E-11	0.00E+00	5.38E-09	1.74E-12	1.66E-11	1.72E-09	7.21E-09	0.00E+00
159	3073.	5.40E-11	1.26E-12	3.31E-11	0.00E+00	5.38E-09	1.65E-12	1.66E-11	1.72E-09	7.21E-09	0.00E+00
160	3073.	3.22E-11	7.63E-13	2.00E-11	0.00E+00	5.38E-09	9.97E-13	1.66E-11	1.71E-09	7.16E-09	0.00E+00
161	2808.	1.70E-11	4.09E-13	1.07E-11	0.00E+00	5.38E-09	5.34E-13	1.66E-11	1.71E-09	7.14E-09	0.00E+00
162	2808.	2.17E-11	5.22E-13	1.37E-11	0.00E+00	5.38E-09	6.82E-13	1.66E-11	1.71E-09	7.14E-09	0.00E+00
163	2808.	2.95E-11	7.11E-13	1.86E-11	0.00E+00	5.38E-09	9.28E-13	1.66E-11	1.71E-09	7.16E-09	0.00E+00
164	2808.	1.57E-11	3.76E-13	9.85E-12	0.00E+00	5.38E-09	4.91E-13	1.66E-11	1.71E-09	7.13E-09	0.00E+00
165	2808.	2.07E-11	4.97E-13	1.30E-11	0.00E+00	5.38E-09	6.49E-13	1.66E-11	1.71E-09	7.14E-09	0.00E+00
166	4574.	1.02E-11	2.46E-13	6.45E-12	0.00E+00	5.38E-09	3.21E-13	1.66E-11	1.71E-09	7.12E-09	0.00E+00
167	4574.	1.31E-11	3.15E-13	8.25E-12	0.00E+00	5.38E-09	4.11E-13	1.66E-11	1.71E-09	7.13E-09	0.00E+00
168	4574.	8.86E-12	2.13E-13	5.59E-12	0.00E+00	5.38E-09	2.78E-13	1.66E-11	1.71E-09	7.12E-09	0.00E+00
169	4574.	1.17E-11	2.82E-13	7.38E-12	0.00E+00	5.38E-09	3.68E-13	1.66E-11	1.71E-09	7.12E-09	0.00E+00

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4:39:56

plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:54 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
170	4574.	1.02E-11	2.47E-13	6.47E-12	0.00E+00	5.38E-09	3.22E-13	1.66E-11	1.71E-09	7.12E-09	0.00E+00
171	0.	2.06E-10	4.97E-12	1.30E-10	0.00E+00	5.38E-09	6.49E-12	1.66E-11	1.76E-09	7.50E-09	0.00E+00
172	0.	2.06E-10	4.95E-12	1.30E-10	0.00E+00	5.38E-09	6.47E-12	1.66E-11	1.76E-09	7.50E-09	0.00E+00
173	0.	1.88E-10	4.53E-12	1.19E-10	0.00E+00	5.38E-09	5.92E-12	1.66E-11	1.75E-09	7.47E-09	0.00E+00
174	0.	1.35E-10	3.26E-12	8.54E-11	0.00E+00	5.38E-09	4.25E-12	1.66E-11	1.74E-09	7.36E-09	0.00E+00
175	0.	1.41E-10	3.40E-12	8.92E-11	0.00E+00	5.38E-09	4.44E-12	1.66E-11	1.74E-09	7.38E-09	0.00E+00
176	0.	1.09E-10	2.63E-12	6.88E-11	0.00E+00	5.38E-09	3.43E-12	1.66E-11	1.73E-09	7.31E-09	0.00E+00
177	0.	1.01E-10	2.43E-12	6.37E-11	0.00E+00	5.38E-09	3.17E-12	1.66E-11	1.73E-09	7.30E-09	0.00E+00
178	0.	3.17E-10	7.70E-12	2.02E-10	0.00E+00	5.38E-09	1.01E-11	1.66E-11	1.78E-09	7.72E-09	0.00E+00
179	0.	2.40E-10	5.81E-12	1.52E-10	0.00E+00	5.38E-09	7.59E-12	1.66E-11	1.77E-09	7.57E-09	0.00E+00
180	0.	2.39E-10	5.77E-12	1.51E-10	0.00E+00	5.38E-09	7.54E-12	1.66E-11	1.76E-09	7.57E-09	0.00E+00
181	0.	2.11E-10	5.09E-12	1.33E-10	0.00E+00	5.38E-09	6.64E-12	1.66E-11	1.76E-09	7.51E-09	0.00E+00
182	0.	4.24E-10	9.61E-12	2.52E-10	0.00E+00	5.38E-09	1.25E-11	1.66E-11	1.80E-09	7.90E-09	0.00E+00
183	0.	5.70E-10	1.34E-11	3.50E-10	0.00E+00	5.38E-09	1.74E-11	1.66E-11	1.84E-09	8.19E-09	0.00E+00
184	0.	6.91E-10	1.65E-11	4.31E-10	0.00E+00	5.38E-09	2.15E-11	1.66E-11	1.88E-09	8.43E-09	0.00E+00
185	0.	8.00E-10	1.92E-11	5.04E-10	0.00E+00	5.38E-09	2.51E-11	1.66E-11	1.90E-09	8.65E-09	0.00E+00
186	0.	7.99E-10	1.93E-11	5.05E-10	0.00E+00	5.38E-09	2.52E-11	1.66E-11	1.90E-09	8.65E-09	0.00E+00
187	0.	2.85E-09	6.58E-11	1.73E-09	0.00E+00	5.38E-09	8.59E-11	1.66E-11	2.39E-09	1.25E-08	0.00E+00
188	0.	2.77E-09	6.58E-11	1.73E-09	0.00E+00	5.38E-09	8.59E-11	1.66E-11	2.39E-09	1.24E-08	0.00E+00
189	0.	2.07E-09	4.95E-11	1.30E-09	0.00E+00	5.38E-09	6.47E-11	1.66E-11	2.22E-09	1.11E-08	0.00E+00
190	0.	1.67E-09	4.01E-11	1.05E-09	0.00E+00	5.38E-09	5.23E-11	1.66E-11	2.12E-09	1.03E-08	0.00E+00
191	0.	1.44E-09	3.46E-11	9.07E-10	0.00E+00	5.38E-09	4.52E-11	1.66E-11	2.06E-09	9.89E-09	0.00E+00
192	0.	2.86E-09	6.55E-11	1.72E-09	0.00E+00	5.38E-09	8.56E-11	1.66E-11	2.39E-09	1.25E-08	0.00E+00
193	0.	2.75E-09	6.52E-11	1.71E-09	0.00E+00	5.38E-09	8.52E-11	1.66E-11	2.38E-09	1.24E-08	0.00E+00
194	0.	1.79E-09	4.29E-11	1.12E-09	0.00E+00	5.38E-09	5.60E-11	1.66E-11	2.15E-09	1.06E-08	0.00E+00
195	0.	1.45E-09	3.47E-11	9.09E-10	0.00E+00	5.38E-09	4.53E-11	1.66E-11	2.07E-09	9.90E-09	0.00E+00
196	0.	1.26E-09	2.85E-11	7.47E-10	0.00E+00	5.38E-09	3.72E-11	1.66E-11	2.00E-09	9.47E-09	0.00E+00
197	0.	2.19E-09	5.13E-11	1.35E-09	0.00E+00	5.38E-09	6.70E-11	1.66E-11	2.24E-09	1.13E-08	0.00E+00
198	0.	1.93E-09	4.58E-11	1.20E-09	0.00E+00	5.38E-09	5.98E-11	1.66E-11	2.18E-09	1.08E-08	0.00E+00
199	0.	1.56E-09	3.72E-11	9.75E-10	0.00E+00	5.38E-09	4.85E-11	1.66E-11	2.09E-09	1.01E-08	0.00E+00
200	0.	1.23E-09	2.93E-11	7.69E-10	0.00E+00	5.38E-09	3.83E-11	1.66E-11	2.01E-09	9.47E-09	0.00E+00
201	0.	2.76E-10	5.95E-12	1.56E-10	0.00E+00	5.38E-09	7.78E-12	1.66E-11	1.77E-09	7.61E-09	0.00E+00
202	0.	1.09E-09	2.54E-11	6.66E-10	0.00E+00	5.38E-09	3.32E-11	1.66E-11	1.97E-09	9.18E-09	0.00E+00
203	0.	1.62E-09	3.84E-11	1.01E-09	0.00E+00	5.38E-09	5.02E-11	1.66E-11	2.10E-09	1.02E-08	0.00E+00
204	0.	1.45E-09	3.47E-11	9.09E-10	0.00E+00	5.38E-09	4.53E-11	1.66E-11	2.07E-09	9.91E-09	0.00E+00
205	0.	1.19E-09	2.85E-11	7.47E-10	0.00E+00	5.38E-09	3.72E-11	1.66E-11	2.00E-09	9.40E-09	0.00E+00
TOTAL BURDEN =										0.00E+00	

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plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:54 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
1	0.	3.87E-10	8.53E-12	2.05E-10	0.00E+00	2.28E-09	7.00E-12	1.66E-11	1.88E-09	4.78E-09	0.00E+00
2	0.	1.73E-10	3.52E-12	8.47E-11	0.00E+00	2.28E-09	2.89E-12	1.66E-11	1.76E-09	4.32E-09	0.00E+00
3	0.	1.84E-10	4.11E-12	9.87E-11	0.00E+00	2.28E-09	3.37E-12	1.66E-11	1.77E-09	4.36E-09	0.00E+00
4	0.	2.55E-10	5.78E-12	1.39E-10	0.00E+00	2.28E-09	4.74E-12	1.66E-11	1.81E-09	4.51E-09	0.00E+00
5	0.	2.33E-10	5.27E-12	1.27E-10	0.00E+00	2.28E-09	4.32E-12	1.66E-11	1.80E-09	4.47E-09	0.00E+00
6	0.	1.73E-10	3.92E-12	9.43E-11	0.00E+00	2.28E-09	3.22E-12	1.66E-11	1.77E-09	4.34E-09	0.00E+00
7	0.	1.28E-10	2.92E-12	7.01E-11	0.00E+00	2.28E-09	2.39E-12	1.66E-11	1.75E-09	4.25E-09	0.00E+00
8	0.	9.99E-11	2.27E-12	5.45E-11	0.00E+00	2.28E-09	1.86E-12	1.66E-11	1.73E-09	4.19E-09	0.00E+00
9	0.	7.98E-11	1.82E-12	4.36E-11	0.00E+00	2.28E-09	1.49E-12	1.66E-11	1.72E-09	4.14E-09	0.00E+00
10	0.	9.53E-11	4.45E-13	1.07E-11	0.00E+00	2.28E-09	3.65E-13	1.66E-11	1.69E-09	4.09E-09	0.00E+00
11	0.	1.04E-09	2.11E-11	5.08E-10	0.00E+00	2.28E-09	1.73E-11	1.66E-11	2.18E-09	6.06E-09	0.00E+00
12	0.	9.42E-10	2.10E-11	5.06E-10	0.00E+00	2.28E-09	1.72E-11	1.66E-11	2.17E-09	5.95E-09	0.00E+00
13	0.	5.66E-10	1.28E-11	3.08E-10	0.00E+00	2.28E-09	1.05E-11	1.66E-11	1.98E-09	5.17E-09	0.00E+00
14	0.	4.28E-10	9.70E-12	2.33E-10	0.00E+00	2.28E-09	7.95E-12	1.66E-11	1.91E-09	4.88E-09	0.00E+00
15	0.	2.75E-10	6.28E-12	1.51E-10	0.00E+00	2.28E-09	5.15E-12	1.66E-11	1.82E-09	4.56E-09	0.00E+00
16	0.	1.82E-10	4.13E-12	9.94E-11	0.00E+00	2.28E-09	3.39E-12	1.66E-11	1.77E-09	4.36E-09	0.00E+00
17	0.	1.28E-10	2.92E-12	7.01E-11	0.00E+00	2.28E-09	2.39E-12	1.66E-11	1.75E-09	4.25E-09	0.00E+00
18	0.	9.47E-11	2.15E-12	5.17E-11	0.00E+00	2.28E-09	1.76E-12	1.66E-11	1.73E-09	4.17E-09	0.00E+00
19	0.	2.07E-11	3.05E-13	7.33E-12	0.00E+00	2.28E-09	2.50E-13	1.66E-11	1.68E-09	4.01E-09	0.00E+00
20	0.	4.14E-11	7.69E-13	1.85E-11	0.00E+00	2.28E-09	6.30E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
21	0.	5.61E-10	1.25E-11	2.99E-10	0.00E+00	2.28E-09	1.02E-11	1.66E-11	1.97E-09	5.15E-09	0.00E+00
22	0.	4.77E-10	1.07E-11	2.57E-10	0.00E+00	2.28E-09	8.78E-12	1.66E-11	1.93E-09	4.98E-09	0.00E+00
23	0.	3.82E-10	8.61E-12	2.07E-10	0.00E+00	2.28E-09	7.06E-12	1.66E-11	1.88E-09	4.78E-09	0.00E+00
24	0.	3.27E-10	7.42E-12	1.78E-10	0.00E+00	2.28E-09	6.08E-12	1.66E-11	1.85E-09	4.67E-09	0.00E+00
25	0.	2.04E-10	4.61E-12	1.11E-10	0.00E+00	2.28E-09	3.78E-12	1.66E-11	1.79E-09	4.40E-09	0.00E+00
26	0.	1.51E-10	3.42E-12	8.22E-11	0.00E+00	2.28E-09	2.80E-12	1.66E-11	1.76E-09	4.29E-09	0.00E+00
27	0.	1.13E-10	2.55E-12	6.14E-11	0.00E+00	2.28E-09	2.09E-12	1.66E-11	1.74E-09	4.21E-09	0.00E+00
28	0.	1.48E-11	2.73E-13	6.56E-12	0.00E+00	2.28E-09	2.24E-13	1.66E-11	1.68E-09	4.00E-09	0.00E+00
29	0.	2.42E-11	4.80E-13	1.15E-11	0.00E+00	2.28E-09	3.93E-13	1.66E-11	1.69E-09	4.02E-09	0.00E+00
30	0.	8.61E-11	1.86E-12	4.48E-11	0.00E+00	2.28E-09	1.53E-12	1.66E-11	1.72E-09	4.15E-09	0.00E+00
31	0.	3.43E-10	7.66E-12	1.84E-10	0.00E+00	2.28E-09	6.28E-12	1.66E-11	1.86E-09	4.69E-09	0.00E+00
32	0.	3.93E-10	8.85E-12	2.13E-10	0.00E+00	2.28E-09	7.26E-12	1.66E-11	1.89E-09	4.80E-09	0.00E+00
33	0.	3.51E-10	7.98E-12	1.92E-10	0.00E+00	2.28E-09	6.54E-12	1.66E-11	1.86E-09	4.72E-09	0.00E+00
34	0.	2.41E-10	5.43E-12	1.31E-10	0.00E+00	2.28E-09	4.45E-12	1.66E-11	1.81E-09	4.48E-09	0.00E+00
35	0.	1.65E-10	3.76E-12	9.05E-11	0.00E+00	2.28E-09	3.08E-12	1.66E-11	1.77E-09	4.32E-09	0.00E+00
36	0.	1.21E-10	2.76E-12	6.62E-11	0.00E+00	2.28E-09	2.26E-12	1.66E-11	1.74E-09	4.23E-09	0.00E+00
37	0.	1.46E-11	2.94E-13	7.07E-12	0.00E+00	2.28E-09	2.41E-13	1.66E-11	1.68E-09	4.00E-09	0.00E+00
38	0.	2.39E-11	5.01E-13	1.20E-11	0.00E+00	2.28E-09	4.11E-13	1.66E-11	1.69E-09	4.02E-09	0.00E+00
39	0.	4.01E-11	8.72E-13	2.10E-11	0.00E+00	2.28E-09	7.15E-13	1.66E-11	1.70E-09	4.06E-09	0.00E+00
40	0.	1.46E-10	3.26E-12	7.84E-11	0.00E+00	2.28E-09	2.67E-12	1.66E-11	1.75E-09	4.28E-09	0.00E+00
41	0.	3.05E-10	6.92E-12	1.66E-10	0.00E+00	2.28E-09	5.67E-12	1.66E-11	1.84E-09	4.62E-09	0.00E+00
42	0.	3.69E-10	8.37E-12	2.01E-10	0.00E+00	2.28E-09	6.86E-12	1.66E-11	1.87E-09	4.76E-09	0.00E+00
43	0.	2.41E-10	5.49E-12	1.32E-10	0.00E+00	2.28E-09	4.50E-12	1.66E-11	1.81E-09	4.48E-09	0.00E+00
44	0.	1.83E-10	4.16E-12	1.00E-10	0.00E+00	2.28E-09	3.41E-12	1.66E-11	1.78E-09	4.36E-09	0.00E+00
45	0.	1.35E-10	3.07E-12	7.39E-11	0.00E+00	2.28E-09	2.52E-12	1.66E-11	1.75E-09	4.26E-09	0.00E+00
46	0.	1.41E-11	2.97E-13	7.13E-12	0.00E+00	2.28E-09	2.43E-13	1.66E-11	1.68E-09	4.00E-09	0.00E+00
47	0.	2.43E-11	5.22E-13	1.25E-11	0.00E+00	2.28E-09	4.28E-13	1.66E-11	1.69E-09	4.02E-09	0.00E+00
48	0.	3.55E-11	7.77E-13	1.87E-11	0.00E+00	2.28E-09	6.37E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
49	0.	9.12E-11	2.04E-12	4.90E-11	0.00E+00	2.28E-09	1.67E-12	1.66E-11	1.73E-09	4.17E-09	0.00E+00
50	0.	2.13E-10	4.82E-12	1.16E-10	0.00E+00	2.28E-09	3.95E-12	1.66E-11	1.79E-09	4.42E-09	0.00E+00
51	0.	3.38E-10	7.71E-12	1.85E-10	0.00E+00	2.28E-09	6.32E-12	1.66E-11	1.86E-09	4.69E-09	0.00E+00
52	0.	2.21E-10	5.01E-12	1.20E-10	0.00E+00	2.28E-09	4.11E-12	1.66E-11	1.80E-09	4.44E-09	0.00E+00
53	0.	1.83E-10	4.16E-12	1.00E-10	0.00E+00	2.28E-09	3.41E-12	1.66E-11	1.78E-09	4.36E-09	0.00E+00
54	0.	1.42E-10	3.21E-12	7.71E-11	0.00E+00	2.28E-09	2.63E-12	1.66E-11	1.75E-09	4.27E-09	0.00E+00
55	0.	1.55E-11	3.34E-13	8.03E-12	0.00E+00	2.28E-09	2.74E-13	1.66E-11	1.68E-09	4.01E-09	0.00E+00

11/11/29
15:39:36

plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:54 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
56	0.	2.24E-11	4.90E-13	1.18E-11	0.00E+00	2.28E-09	4.02E-13	1.66E-11	1.69E-09	4.02E-09	0.00E+00
57	0.	3.29E-11	7.24E-13	1.74E-11	0.00E+00	2.28E-09	5.93E-13	1.66E-11	1.69E-09	4.04E-09	0.00E+00
58	0.	6.03E-11	1.35E-12	3.26E-11	0.00E+00	2.28E-09	1.11E-12	1.66E-11	1.71E-09	4.10E-09	0.00E+00
59	0.	1.31E-10	2.97E-12	7.13E-11	0.00E+00	2.28E-09	2.43E-12	1.66E-11	1.75E-09	4.25E-09	0.00E+00
60	0.	2.25E-10	5.11E-12	1.23E-10	0.00E+00	2.28E-09	4.19E-12	1.66E-11	1.80E-09	4.45E-09	0.00E+00
61	0.	1.71E-10	3.87E-12	9.30E-11	0.00E+00	2.28E-09	3.17E-12	1.66E-11	1.77E-09	4.34E-09	0.00E+00
62	0.	1.57E-10	3.55E-12	8.54E-11	0.00E+00	2.28E-09	2.91E-12	1.66E-11	1.76E-09	4.31E-09	0.00E+00
63	0.	1.39E-10	3.15E-12	7.58E-11	0.00E+00	2.28E-09	2.59E-12	1.66E-11	1.75E-09	4.27E-09	0.00E+00
64	0.	1.02E-10	2.32E-12	5.58E-11	0.00E+00	2.28E-09	1.90E-12	1.66E-11	1.73E-09	4.19E-09	0.00E+00
65	0.	2.46E-11	5.46E-13	1.31E-11	0.00E+00	2.28E-09	4.48E-13	1.66E-11	1.69E-09	4.02E-09	0.00E+00
66	0.	2.57E-11	5.70E-13	1.37E-11	0.00E+00	2.28E-09	4.67E-13	1.66E-11	1.69E-09	4.03E-09	0.00E+00
67	0.	2.82E-11	6.31E-13	1.52E-11	0.00E+00	2.28E-09	5.17E-13	1.66E-11	1.69E-09	4.03E-09	0.00E+00
68	0.	3.01E-11	6.76E-13	1.62E-11	0.00E+00	2.28E-09	5.54E-13	1.66E-11	1.69E-09	4.04E-09	0.00E+00
69	0.	3.08E-11	6.86E-13	1.65E-11	0.00E+00	2.28E-09	5.63E-13	1.66E-11	1.69E-09	4.04E-09	0.00E+00
70	0.	3.00E-11	6.73E-13	1.62E-11	0.00E+00	2.28E-09	5.52E-13	1.66E-11	1.69E-09	4.04E-09	0.00E+00
71	0.	2.88E-11	6.47E-13	1.55E-11	0.00E+00	2.28E-09	5.30E-13	1.66E-11	1.69E-09	4.03E-09	0.00E+00
72	0.	2.67E-11	5.99E-13	1.44E-11	0.00E+00	2.28E-09	4.91E-13	1.66E-11	1.69E-09	4.03E-09	0.00E+00
73	0.	2.50E-11	5.62E-13	1.35E-11	0.00E+00	2.28E-09	4.61E-13	1.66E-11	1.69E-09	4.03E-09	0.00E+00
74	0.	1.93E-11	4.37E-13	1.05E-11	0.00E+00	2.28E-09	3.58E-13	1.66E-11	1.69E-09	4.01E-09	0.00E+00
75	0.	1.54E-11	3.34E-13	8.03E-12	0.00E+00	2.28E-09	2.74E-13	1.66E-11	1.68E-09	4.01E-09	0.00E+00
76	0.	1.68E-11	3.63E-13	8.73E-12	0.00E+00	2.28E-09	2.98E-13	1.66E-11	1.69E-09	4.01E-09	0.00E+00
77	0.	1.86E-11	4.00E-13	9.62E-12	0.00E+00	2.28E-09	3.28E-13	1.66E-11	1.69E-09	4.01E-09	0.00E+00
78	0.	2.24E-11	4.82E-13	1.16E-11	0.00E+00	2.28E-09	3.95E-13	1.66E-11	1.69E-09	4.02E-09	0.00E+00
79	0.	2.74E-11	5.88E-13	1.41E-11	0.00E+00	2.28E-09	4.82E-13	1.66E-11	1.69E-09	4.03E-09	0.00E+00
80	0.	3.15E-11	6.76E-13	1.62E-11	0.00E+00	2.28E-09	5.54E-13	1.66E-11	1.69E-09	4.04E-09	0.00E+00
81	0.	3.48E-11	7.42E-13	1.78E-11	0.00E+00	2.28E-09	6.08E-13	1.66E-11	1.69E-09	4.04E-09	0.00E+00
82	0.	3.85E-11	8.16E-13	1.96E-11	0.00E+00	2.28E-09	6.68E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
83	0.	4.06E-11	8.53E-13	2.05E-11	0.00E+00	2.28E-09	7.00E-13	1.66E-11	1.70E-09	4.06E-09	0.00E+00
84	0.	3.91E-11	8.16E-13	1.96E-11	0.00E+00	2.28E-09	6.69E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
85	0.	3.97E-11	8.27E-13	1.99E-11	0.00E+00	2.28E-09	6.78E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
86	0.	3.68E-11	7.71E-13	1.85E-11	0.00E+00	2.28E-09	6.32E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
87	0.	3.69E-11	7.82E-13	1.88E-11	0.00E+00	2.28E-09	6.41E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
88	0.	3.75E-11	8.00E-13	1.92E-11	0.00E+00	2.28E-09	6.56E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
89	0.	3.91E-11	8.48E-13	2.04E-11	0.00E+00	2.28E-09	6.95E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
90	0.	3.84E-11	8.45E-13	2.03E-11	0.00E+00	2.28E-09	6.93E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
91	0.	1.57E-11	3.45E-13	8.28E-12	0.00E+00	2.28E-09	2.82E-13	1.66E-11	1.69E-09	4.01E-09	0.00E+00
92	0.	1.87E-11	4.11E-13	9.87E-12	0.00E+00	2.28E-09	3.37E-13	1.66E-11	1.69E-09	4.01E-09	0.00E+00
93	0.	2.66E-11	5.80E-13	1.40E-11	0.00E+00	2.28E-09	4.76E-13	1.66E-11	1.69E-09	4.03E-09	0.00E+00
94	0.	3.15E-11	6.89E-13	1.66E-11	0.00E+00	2.28E-09	5.65E-13	1.66E-11	1.69E-09	4.04E-09	0.00E+00
95	0.	3.82E-11	8.32E-13	2.00E-11	0.00E+00	2.28E-09	6.82E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
96	0.	3.99E-11	8.67E-13	2.08E-11	0.00E+00	2.28E-09	7.10E-13	1.66E-11	1.70E-09	4.06E-09	0.00E+00
97	0.	4.00E-11	8.67E-13	2.08E-11	0.00E+00	2.28E-09	7.10E-13	1.66E-11	1.70E-09	4.06E-09	0.00E+00
98	0.	3.27E-11	7.08E-13	1.70E-11	0.00E+00	2.28E-09	5.80E-13	1.66E-11	1.69E-09	4.04E-09	0.00E+00
99	0.	3.07E-11	6.68E-13	1.61E-11	0.00E+00	2.28E-09	5.47E-13	1.66E-11	1.69E-09	4.04E-09	0.00E+00
100	0.	2.81E-11	6.17E-13	1.48E-11	0.00E+00	2.28E-09	5.06E-13	1.66E-11	1.69E-09	4.03E-09	0.00E+00
101	0.	3.28E-11	7.34E-13	1.76E-11	0.00E+00	2.28E-09	6.02E-13	1.66E-11	1.69E-09	4.04E-09	0.00E+00
102	0.	3.67E-11	8.19E-13	1.97E-11	0.00E+00	2.28E-09	6.71E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
103	0.	4.39E-11	9.73E-13	2.34E-11	0.00E+00	2.28E-09	7.97E-13	1.66E-11	1.70E-09	4.07E-09	0.00E+00
104	0.	5.31E-11	1.18E-12	2.83E-11	0.00E+00	2.28E-09	9.67E-13	1.66E-11	1.70E-09	4.08E-09	0.00E+00
105	0.	6.61E-11	1.46E-12	3.51E-11	0.00E+00	2.28E-09	1.20E-12	1.66E-11	1.71E-09	4.11E-09	0.00E+00
106	0.	7.91E-11	1.75E-12	4.22E-11	0.00E+00	2.28E-09	1.44E-12	1.66E-11	1.72E-09	4.14E-09	0.00E+00
107	0.	1.17E-10	2.59E-12	6.24E-11	0.00E+00	2.28E-09	2.13E-12	1.66E-11	1.74E-09	4.22E-09	0.00E+00
108	0.	1.91E-10	4.27E-12	1.03E-10	0.00E+00	2.28E-09	3.50E-12	1.66E-11	1.78E-09	4.38E-09	0.00E+00
109	0.	2.17E-10	4.85E-12	1.17E-10	0.00E+00	2.28E-09	3.98E-12	1.66E-11	1.79E-09	4.43E-09	0.00E+00
110	0.	1.74E-10	3.90E-12	9.36E-11	0.00E+00	2.28E-09	3.19E-12	1.66E-11	1.77E-09	4.34E-09	0.00E+00
111	0.	1.10E-10	2.47E-12	5.93E-11	0.00E+00	2.28E-09	2.02E-12	1.66E-11	1.74E-09	4.21E-09	0.00E+00
112	0.	1.24E-10	2.81E-12	6.75E-11	0.00E+00	2.28E-09	2.30E-12	1.66E-11	1.74E-09	4.24E-09	0.00E+00

89-11-29
15:39:56

plausible3.out

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*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:55 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
113	0.	1.01E-10	2.28E-12	5.47E-11	0.00E+00	2.28E-09	1.87E-12	1.66E-11	1.73E-09	4.19E-09	0.00E+00
114	0.	8.06E-11	1.83E-12	4.40E-11	0.00E+00	2.28E-09	1.50E-12	1.66E-11	1.72E-09	4.14E-09	0.00E+00
115	0.	3.50E-11	7.82E-13	1.88E-11	0.00E+00	2.28E-09	6.41E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
116	0.	3.74E-11	8.40E-13	2.02E-11	0.00E+00	2.28E-09	6.89E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
117	0.	4.24E-11	9.46E-13	2.27E-11	0.00E+00	2.28E-09	7.76E-13	1.66E-11	1.70E-09	4.06E-09	0.00E+00
118	0.	4.99E-11	1.12E-12	2.68E-11	0.00E+00	2.28E-09	9.15E-13	1.66E-11	1.70E-09	4.08E-09	0.00E+00
119	0.	6.72E-11	1.51E-12	3.62E-11	0.00E+00	2.28E-09	1.24E-12	1.66E-11	1.71E-09	4.12E-09	0.00E+00
120	0.	9.20E-11	2.07E-12	4.98E-11	0.00E+00	2.28E-09	1.70E-12	1.66E-11	1.73E-09	4.17E-09	0.00E+00
121	0.	1.01E-10	2.28E-12	5.47E-11	0.00E+00	2.28E-09	1.87E-12	1.66E-11	1.73E-09	4.19E-09	0.00E+00
122	0.	1.09E-10	2.44E-12	5.87E-11	0.00E+00	2.28E-09	2.00E-12	1.66E-11	1.73E-09	4.20E-09	0.00E+00
123	0.	1.21E-10	2.73E-12	6.56E-11	0.00E+00	2.28E-09	2.24E-12	1.66E-11	1.74E-09	4.23E-09	0.00E+00
124	0.	1.56E-10	3.52E-12	8.47E-11	0.00E+00	2.28E-09	2.89E-12	1.66E-11	1.76E-09	4.30E-09	0.00E+00
125	0.	1.09E-10	2.48E-12	5.95E-11	0.00E+00	2.28E-09	2.03E-12	1.66E-11	1.74E-09	4.20E-09	0.00E+00
126	0.	7.31E-11	1.65E-12	3.97E-11	0.00E+00	2.28E-09	1.35E-12	1.66E-11	1.72E-09	4.13E-09	0.00E+00
127	0.	4.77E-11	1.08E-12	2.59E-11	0.00E+00	2.28E-09	8.84E-13	1.66E-11	1.70E-09	4.07E-09	0.00E+00
128	0.	3.27E-11	7.45E-13	1.79E-11	0.00E+00	2.28E-09	6.10E-13	1.66E-11	1.69E-09	4.04E-09	0.00E+00
129	436.	4.59E-12	1.04E-13	2.50E-12	0.00E+00	2.28E-09	8.52E-14	1.66E-11	1.68E-09	3.98E-09	0.00E+00
130	436.	5.35E-12	1.21E-13	2.91E-12	0.00E+00	2.28E-09	9.93E-14	1.66E-11	1.68E-09	3.98E-09	0.00E+00
131	436.	1.28E-11	2.89E-13	6.94E-12	0.00E+00	2.28E-09	2.37E-13	1.66E-11	1.68E-09	4.00E-09	0.00E+00
132	436.	5.28E-12	1.20E-13	2.87E-12	0.00E+00	2.28E-09	9.80E-14	1.66E-11	1.68E-09	3.98E-09	0.00E+00
133	436.	1.93E-11	4.37E-13	1.05E-11	0.00E+00	2.28E-09	3.58E-13	1.66E-11	1.69E-09	4.01E-09	0.00E+00
134	436.	2.42E-10	5.51E-12	1.32E-10	0.00E+00	2.28E-09	4.52E-12	1.66E-11	1.81E-09	4.49E-09	0.00E+00
135	436.	8.93E-12	2.00E-13	4.80E-12	0.00E+00	2.28E-09	1.64E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
136	436.	1.05E-11	2.37E-13	5.70E-12	0.00E+00	2.28E-09	1.94E-13	1.66E-11	1.68E-09	4.00E-09	0.00E+00
137	436.	5.62E-12	1.27E-13	3.06E-12	0.00E+00	2.28E-09	1.04E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
138	1090.	1.69E-11	3.82E-13	9.17E-12	0.00E+00	2.28E-09	3.13E-13	1.66E-11	1.69E-09	4.01E-09	0.00E+00
139	1090.	4.19E-11	9.51E-13	2.29E-11	0.00E+00	2.28E-09	7.80E-13	1.66E-11	1.70E-09	4.06E-09	0.00E+00
140	1090.	9.69E-12	2.17E-13	5.20E-12	0.00E+00	2.28E-09	1.77E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
141	1090.	1.30E-11	2.92E-13	7.01E-12	0.00E+00	2.28E-09	2.39E-13	1.66E-11	1.68E-09	4.00E-09	0.00E+00
142	1090.	9.35E-12	2.10E-13	5.05E-12	0.00E+00	2.28E-09	1.72E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
143	1090.	3.57E-11	8.06E-13	1.94E-11	0.00E+00	2.28E-09	6.60E-13	1.66E-11	1.70E-09	4.05E-09	0.00E+00
144	1090.	1.43E-11	3.23E-13	7.77E-12	0.00E+00	2.28E-09	2.65E-13	1.66E-11	1.68E-09	4.00E-09	0.00E+00
145	1090.	8.77E-12	1.98E-13	4.76E-12	0.00E+00	2.28E-09	1.62E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
146	5378.	5.20E-12	1.17E-13	2.82E-12	0.00E+00	2.28E-09	9.62E-14	1.66E-11	1.68E-09	3.98E-09	0.00E+00
147	5378.	4.89E-12	1.10E-13	2.64E-12	0.00E+00	2.28E-09	9.02E-14	1.66E-11	1.68E-09	3.98E-09	0.00E+00
148	3578.	6.99E-12	1.57E-13	3.78E-12	0.00E+00	2.28E-09	1.29E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
149	3860.	6.26E-12	1.41E-13	3.39E-12	0.00E+00	2.28E-09	1.16E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
150	3860.	1.00E-11	2.25E-13	5.41E-12	0.00E+00	2.28E-09	1.85E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
151	3860.	7.66E-12	1.72E-13	4.14E-12	0.00E+00	2.28E-09	1.41E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
152	3860.	2.59E-11	5.83E-13	1.40E-11	0.00E+00	2.28E-09	4.78E-13	1.66E-11	1.69E-09	4.03E-09	0.00E+00
153	3860.	4.63E-11	1.04E-12	2.51E-11	0.00E+00	2.28E-09	8.56E-13	1.66E-11	1.70E-09	4.07E-09	0.00E+00
154	3073.	1.32E-11	2.94E-13	7.07E-12	0.00E+00	2.28E-09	2.41E-13	1.66E-11	1.68E-09	4.00E-09	0.00E+00
155	3073.	2.26E-11	5.01E-13	1.20E-11	0.00E+00	2.28E-09	4.11E-13	1.66E-11	1.69E-09	4.02E-09	0.00E+00
156	3073.	1.83E-11	4.13E-13	9.94E-12	0.00E+00	2.28E-09	3.39E-13	1.66E-11	1.69E-09	4.01E-09	0.00E+00
157	3073.	2.23E-11	5.01E-13	1.20E-11	0.00E+00	2.28E-09	4.11E-13	1.66E-11	1.69E-09	4.02E-09	0.00E+00
158	3073.	2.40E-11	5.38E-13	1.29E-11	0.00E+00	2.28E-09	4.41E-13	1.66E-11	1.69E-09	4.02E-09	0.00E+00
159	3073.	2.31E-11	5.09E-13	1.22E-11	0.00E+00	2.28E-09	4.17E-13	1.66E-11	1.69E-09	4.02E-09	0.00E+00
160	3073.	1.38E-11	3.07E-13	7.39E-12	0.00E+00	2.28E-09	2.52E-13	1.66E-11	1.68E-09	4.00E-09	0.00E+00
161	2808.	7.27E-12	1.65E-13	3.96E-12	0.00E+00	2.28E-09	1.35E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
162	2808.	9.31E-12	2.10E-13	5.06E-12	0.00E+00	2.28E-09	1.72E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
163	2808.	1.27E-11	2.86E-13	6.88E-12	0.00E+00	2.28E-09	2.35E-13	1.66E-11	1.68E-09	4.00E-09	0.00E+00
164	2808.	6.72E-12	1.51E-13	3.64E-12	0.00E+00	2.28E-09	1.24E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
165	2808.	8.87E-12	2.00E-13	4.81E-12	0.00E+00	2.28E-09	1.64E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
166	4574.	4.39E-12	9.91E-14	2.38E-12	0.00E+00	2.28E-09	8.12E-14	1.66E-11	1.68E-09	3.98E-09	0.00E+00
167	4574.	5.61E-12	1.27E-13	3.04E-12	0.00E+00	2.28E-09	1.04E-13	1.66E-11	1.68E-09	3.99E-09	0.00E+00
168	4574.	3.80E-12	8.59E-14	2.06E-12	0.00E+00	2.28E-09	7.04E-14	1.66E-11	1.68E-09	3.98E-09	0.00E+00
169	4574.	5.02E-12	1.13E-13	2.73E-12	0.00E+00	2.28E-09	9.30E-14	1.66E-11	1.68E-09	3.98E-09	0.00E+00

10/11/29
13:39:56

plausible3.out

42

*** LLNL HRA plausible scenario ***

DATE: 11-29-1989 TIME: 15:38:55 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
170	4574.	4.38E-12	9.94E-14	2.39E-12	0.00E+00	2.28E-09	8.15E-14	1.66E-11	1.68E-09	3.98E-09	0.00E+00
171	0.	8.84E-11	2.00E-12	4.81E-11	0.00E+00	2.28E-09	1.64E-12	1.66E-11	1.72E-09	4.16E-09	0.00E+00
172	0.	8.82E-11	2.00E-12	4.80E-11	0.00E+00	2.28E-09	1.64E-12	1.66E-11	1.72E-09	4.16E-09	0.00E+00
173	0.	8.07E-11	1.83E-12	4.39E-11	0.00E+00	2.28E-09	1.50E-12	1.66E-11	1.72E-09	4.14E-09	0.00E+00
174	0.	5.80E-11	1.31E-12	3.15E-11	0.00E+00	2.28E-09	1.08E-12	1.66E-11	1.71E-09	4.10E-09	0.00E+00
175	0.	6.06E-11	1.37E-12	3.29E-11	0.00E+00	2.28E-09	1.12E-12	1.66E-11	1.71E-09	4.10E-09	0.00E+00
176	0.	4.65E-11	1.06E-12	2.54E-11	0.00E+00	2.28E-09	8.67E-13	1.66E-11	1.70E-09	4.07E-09	0.00E+00
177	0.	4.33E-11	9.78E-13	2.35E-11	0.00E+00	2.28E-09	8.02E-13	1.66E-11	1.70E-09	4.06E-09	0.00E+00
178	0.	1.36E-10	3.10E-12	7.45E-11	0.00E+00	2.28E-09	2.54E-12	1.66E-11	1.75E-09	4.26E-09	0.00E+00
179	0.	1.03E-10	2.34E-12	5.62E-11	0.00E+00	2.28E-09	1.92E-12	1.66E-11	1.73E-09	4.19E-09	0.00E+00
180	0.	1.02E-10	2.32E-12	5.59E-11	0.00E+00	2.28E-09	1.91E-12	1.66E-11	1.73E-09	4.19E-09	0.00E+00
181	0.	9.03E-11	2.05E-12	4.92E-11	0.00E+00	2.28E-09	1.68E-12	1.66E-11	1.73E-09	4.16E-09	0.00E+00
182	0.	1.82E-10	3.87E-12	9.30E-11	0.00E+00	2.28E-09	3.17E-12	1.66E-11	1.77E-09	4.35E-09	0.00E+00
183	0.	2.44E-10	5.38E-12	1.29E-10	0.00E+00	2.28E-09	4.41E-12	1.66E-11	1.80E-09	4.48E-09	0.00E+00
184	0.	2.96E-10	6.63E-12	1.59E-10	0.00E+00	2.28E-09	5.43E-12	1.66E-11	1.83E-09	4.60E-09	0.00E+00
185	0.	3.43E-10	7.74E-12	1.86E-10	0.00E+00	2.28E-09	6.34E-12	1.66E-11	1.86E-09	4.70E-09	0.00E+00
186	0.	3.42E-10	7.77E-12	1.87E-10	0.00E+00	2.28E-09	6.37E-12	1.66E-11	1.86E-09	4.70E-09	0.00E+00
187	0.	1.22E-09	2.65E-11	6.37E-10	0.00E+00	2.28E-09	2.17E-11	1.66E-11	2.30E-09	6.51E-09	0.00E+00
188	0.	1.19E-09	2.65E-11	6.37E-10	0.00E+00	2.28E-09	2.17E-11	1.66E-11	2.30E-09	6.47E-09	0.00E+00
189	0.	8.89E-10	2.00E-11	4.80E-10	0.00E+00	2.28E-09	1.64E-11	1.66E-11	2.15E-09	5.85E-09	0.00E+00
190	0.	7.16E-10	1.61E-11	3.88E-10	0.00E+00	2.28E-09	1.32E-11	1.66E-11	2.06E-09	5.49E-09	0.00E+00
191	0.	6.16E-10	1.39E-11	3.35E-10	0.00E+00	2.28E-09	1.14E-11	1.66E-11	2.01E-09	5.28E-09	0.00E+00
192	0.	1.22E-09	2.64E-11	6.34E-10	0.00E+00	2.28E-09	2.16E-11	1.66E-11	2.30E-09	6.50E-09	0.00E+00
193	0.	1.18E-09	2.63E-11	6.31E-10	0.00E+00	2.28E-09	2.15E-11	1.66E-11	2.30E-09	6.45E-09	0.00E+00
194	0.	7.68E-10	1.73E-11	4.15E-10	0.00E+00	2.28E-09	1.42E-11	1.66E-11	2.08E-09	5.60E-09	0.00E+00
195	0.	6.20E-10	1.40E-11	3.36E-10	0.00E+00	2.28E-09	1.14E-11	1.66E-11	2.01E-09	5.28E-09	0.00E+00
196	0.	5.41E-10	1.15E-11	2.76E-10	0.00E+00	2.28E-09	9.41E-12	1.66E-11	1.95E-09	5.08E-09	0.00E+00
197	0.	9.37E-10	2.07E-11	4.97E-10	0.00E+00	2.28E-09	1.69E-11	1.66E-11	2.16E-09	5.93E-09	0.00E+00
198	0.	8.27E-10	1.84E-11	4.43E-10	0.00E+00	2.28E-09	1.51E-11	1.66E-11	2.11E-09	5.71E-09	0.00E+00
199	0.	6.67E-10	1.50E-11	3.60E-10	0.00E+00	2.28E-09	1.23E-11	1.66E-11	2.03E-09	5.38E-09	0.00E+00
200	0.	5.25E-10	1.18E-11	2.84E-10	0.00E+00	2.28E-09	9.69E-12	1.66E-11	1.96E-09	5.08E-09	0.00E+00
201	0.	1.18E-10	2.40E-12	5.76E-11	0.00E+00	2.28E-09	1.97E-12	1.66E-11	1.73E-09	4.21E-09	0.00E+00
202	0.	4.67E-10	1.02E-11	2.46E-10	0.00E+00	2.28E-09	8.39E-12	1.66E-11	1.92E-09	4.95E-09	0.00E+00
203	0.	6.96E-10	1.55E-11	3.72E-10	0.00E+00	2.28E-09	1.27E-11	1.66E-11	2.04E-09	5.43E-09	0.00E+00
204	0.	6.24E-10	1.40E-11	3.36E-10	0.00E+00	2.28E-09	1.14E-11	1.66E-11	2.01E-09	5.29E-09	0.00E+00
205	0.	5.11E-10	1.15E-11	2.76E-10	0.00E+00	2.28E-09	9.41E-12	1.66E-11	1.95E-09	5.05E-09	0.00E+00
TOTAL BURDEN =										0.00E+00	

R-RAM® RESULTS
WINE PATHWAY

ra:dez

wine2.out

Thu Nov 30 09:09:24 1989

lw / OmniLaser

lw ra:dez Job: wine2.out Date: Thu Nov 30 09:09:24 1989

lw ra:dez Job: wine2.out Date: Thu Nov 30 09:09:24 1989

lw ra:dez Job: wine2.out Date: Thu Nov 30 09:09:24 1989

lw ra:dez Job: wine2.out Date: Thu Nov 30 09:09:24 1989

89/11/30
09:07:22

wine2.out

1

09/11/30
09:07:22

wine2.out

2

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:06:59 VERSION: 42688

The Pathway Variables are:

** GENERAL **

Risk Threshold For Burden Calc.	1.000E-07
Body Weight (kg)	7.000E+01
Alternate Exposure Period (yrs)	3.000E+01

** RESPIRATION **

Respiration Rate (m ³ /day)	0.000E+00
Particle Correction	1.000E+00

** SOIL **

Mixing Depth (m)	1.500E-01
Soil Consumption, 70 Years (kg/day)	0.000E+00
Soil Consumption, Alt. Years (kg/day)	0.000E+00

** PLANT **

Rec. # Used as Farm (0=Rec. Specific)	1.000E+00
Interception Fraction (*)	5.400E-02
Elimination Constant (1/day)	3.870E-02
Days Exposed (day)	1.800E+02
Edible Crop Density (kg/m ²)	4.800E-01
Cleaning Efficiency (*)	9.500E-01
Plant Consumption (kg/day)	5.400E-01
Root Vegetable Consumption (kg/day)	1.000E-10

** FISH **

Rec. # Used as Water Body	1.950E+02
Rec. # Used as Runoff	1.950E+02
Water Surface Area (m ²)	3.200E+08
Water Flowrate (kg/day)	1.100E+10
Sediment Flowrate (kg/day)	0.000E+00
Deposition Period	1.000E+00
Fish Consumption (g/day)	0.000E+00

** DAIRY AND BEEF **

Rec. # Used as Dairy Pasture	1.200E+01
Rec. # Used as Dairy Feedlot	1.200E+01
Fraction of Dairy Feed From Grazing	1.000E+00
Bioconcentration Factor for Milk	7.000E+00
Rec. # Used as Beef Pasture	1.200E+01
REC. # Used as Beef Feedlot	1.200E+01
Fraction of Beef Feed from Grazing	1.000E+00
Bioconcentration Factor for Beef	7.000E+00
Cattle Inhalation Rate (m ³ /day)	1.580E+02
Fodder Exposure Period (days)	4.800E+01
Fodder Surface Area (m ² /day)	1.000E+00
Quantity of Fodder Exposed (kg)	3.600E+01
Water Surface Area (m ²)	8.550E+00
Water Residence Time (hr)	7.520E+00
Water Quantity in Water Tank (kg)	4.700E+03
Milk Production Rate (kg/day)	2.300E+00
Cattle Body Weight (kg)	2.400E+02

89/11/30
09:07:22

wine2.out

3

*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:06:59 VERSION: 42688

Grass Interception (*)	5.700E-01
Grass Density (kg/m ²)	5.800E-01
Grass Consumption Rate (kg/day)	1.600E+01
Soil Consumption Rate (kg/day)	2.000E+00
Water Consumption Rate (kg/day)	1.500E+02
Fodder Consumption Rate (kg/day)	1.600E+01
Beef Consumption Rate (kg/day)	0.000E+00
Milk Consumption Rate (kg/day)	0.000E+00

** DERMAL **

Skin Surface Area (cm ²)	4.170E+03
Dust on Skin (mg/cm ² /day)	0.000E+00

** MOTHERS MILK **

Female Fat Content (kg)	2.100E+01
Infant Milk Consumption (ml/day)	0.000E+00
Infant Body Weight (kg)	8.500E+00

** DRINKING WATER **

Rec. # Used as Reservoir	1.710E-01
Reservoir Surface Area (m ²)	4.500E+04
Water Reservoir Outflow (kg/day)	2.100E+08
Drinking Water Consumption (kg/day)	0.000E+00

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wine2.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:06:59 VERSION: 42688

THE POLLUTANT SPECIFIC DATA ARE:

SYMBOL	INGEST POT.	INHALE POT.	BIOCONC	ROOT	CLASS
BA	0.000E+00	0.000E+00	1.700E+00	1.04E-02	M
BENZ	1.700E-01	1.700E-01	5.000E+00	0.00E+00	A
BE	8.400E+00	8.400E+00	1.900E+01	7.79E-04	M
BEHP	1.400E-02	1.400E-02	3.800E+02	8.40E-02	A
BRCL2ME	1.300E-01	1.300E-01	0.000E+00	0.00E+00	A
CHBR3	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
BBPH	0.000E+00	0.000E+00	8.472E+03	2.10E-01	M
CCL4	1.300E-01	1.300E-01	1.900E+01	0.00E+00	A
CLBENZ	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
CHCL3	6.100E-03	8.100E-02	3.750E+00	0.00E+00	A
CD	0.000E+00	4.000E+01	8.100E+01	5.41E-02	M
CR	0.000E+00	5.100E+02	1.600E+01	1.15E-03	M
CU	0.000E+00	0.000E+00	2.000E+02	6.29E-02	M
DIETHPH	0.000E+00	0.000E+00	0.000E+00	6.00E-02	A
MDCBENZ	0.000E+00	0.000E+00	5.600E+01	0.00E+00	A
ODCBENZ	0.000E+00	0.000E+00	5.600E+01	0.00E+00	A
PDCBENZ	2.400E-02	2.400E-02	5.600E+01	0.00E+00	A
ME2PHEN	0.000E+00	0.000E+00	0.000E+00	6.40E-02	A
DIOXANE	1.100E-02	1.100E-02	0.000E+00	0.00E+00	A
EDC	7.300E-02	7.300E-02	0.000E+00	0.00E+00	A
ETHGLYC	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
HEXBENZ	1.700E+00	1.700E+00	8.690E+03	7.00E-02	A
PB	0.000E+00	0.000E+00	4.900E+01	3.88E-03	M
HG	0.000E+00	0.000E+00	5.500E+03	8.10E-02	M
CH2BR2	0.000E+00	0.000E+00	0.000E+00	0.00E+00	A
CH2CL2	7.500E-03	3.300E-03	5.000E+00	0.00E+00	A
NAPHTH	0.000E+00	0.000E+00	8.000E+01	7.20E-02	A
NI	1.700E+00	1.700E+00	4.700E+01	1.32E-02	M
NO2BEN	0.000E+00	0.000E+00	0.000E+00	9.00E-01	A
NO2PHEN	0.000E+00	0.000E+00	0.000E+00	2.50E-01	A
PFORMAL	4.600E-02	4.600E-02	0.000E+00	0.00E+00	A
PHENOL	0.000E+00	0.000E+00	1.100E+00	7.10E-01	M
AG	0.000E+00	0.000E+00	3.080E+03	3.78E-02	M
TCDD	1.330E+05	1.330E+05	5.000E+03	1.00E-02	M
PCE	5.100E-02	3.330E-03	3.100E+01	0.00E+00	A
1122PCA	2.000E-01	2.000E-01	4.200E+01	0.00E+00	A
TCE	1.100E-02	1.700E-02	1.060E+01	0.00E+00	A
CL3BENZ	0.000E+00	0.000E+00	0.000E+00	5.60E-02	A

SYMBOL - Pollutant name
 POTENCY - Pollutant ingestion potency slope
 INHALE POT. - Pollutant inhalation potency slope
 BIOCONC - Bioconcentration factor for fish
 ROOT - Root uptake factor
 CLASS - 'A' Area weighted deposition flux
 'M' Mass weighted deposition flux

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:06:59 VERSION: 42688

THE ELIMINATION RATE DATA ARE:

SYMBOL	SOIL	ANIMAL	MOTHERS MILK
BA	1.000E+00	1.000E-01	1.000E+00
BENZ	1.000E+00	1.000E-01	1.000E+00
BE	1.000E+00	1.000E-01	1.000E+00
BEHP	1.820E+01	7.500E-01	7.500E-01
BRCL2ME	1.000E+00	1.000E-01	1.000E+00
CHBR3	1.000E+00	1.000E-01	1.000E+00
BBPH	1.820E+01	7.500E-01	7.500E-01
CCL4	1.000E+00	1.000E-01	1.000E+00
CLBENZ	1.000E+00	3.300E-02	3.300E-02
CHCL3	1.000E+00	1.000E-01	1.000E+00
CD	1.000E+00	1.000E-01	1.000E+00
CR	1.000E+00	1.000E-01	1.000E+00
CU	1.000E+00	1.000E-01	1.000E+00
DIETHPH	1.820E+01	7.500E-01	7.500E-01
MDCBENZ	1.000E+00	7.000E-02	7.000E-02
ODCBENZ	1.000E+00	7.000E-02	7.000E-02
PDCBENZ	1.200E-01	7.000E-02	7.000E-02
ME2PHEN	1.000E+00	1.000E-01	7.000E-01
DIOXANE	1.000E+00	1.000E-01	1.000E+00
EDC	1.000E+00	1.000E-01	1.000E+00
ETHGLYC	1.000E+00	1.000E-01	1.000E+00
HEXBENZ	1.200E-01	1.400E-02	6.300E-04
PB	1.000E+00	1.000E-01	1.000E+00
HG	1.000E+00	1.000E-01	1.000E+00
CH2BR2	1.000E+00	1.000E-01	1.000E+00
CH2CL2	1.000E+00	1.000E-01	1.000E+00
NAPHTH	2.310E+02	9.900E-02	9.900E-02
NI	1.000E+00	1.000E-01	1.000E+00
NO2BEN	1.000E+00	2.300E-01	2.300E-01
NO2PHEN	1.000E+00	1.400E-01	1.400E-01
PFORMAL	1.000E+00	1.000E-01	1.000E+00
PHENOL	6.930E+01	1.400E-01	1.400E-01
AG	1.000E+00	1.000E-01	1.000E+00
TCDD	5.780E-02	1.060E-01	4.500E-04
PCE	1.000E+00	1.000E-01	1.000E+00
1122PCA	1.000E+00	1.000E-01	1.000E+00
TCE	1.000E+00	1.000E-01	1.000E+00
CL3BENZ	1.200E-01	3.300E-02	3.300E-02

SYMBOL - Pollutant name
SOIL - Elimination constant for soil
ANIMAL - Elimination constant for cattle
MILK - Elimination constant for mothers milk

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:07:00 VERSION: 42688

THE POPULATIONS OF THE RECEPTORS ARE:

Receptor	Population			
1	0.	555200	4200600	5

Receptor - Receptor name
Population - Number of people living at receptor

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:07:00 VERSION: 42688

Unit concentrations and deposition fluxes are:

Source	Receptor	Unit Conc.	Area Dep.	Mass Dep.
1	1	2.140E-02	4.280E-04	4.280E-04
2	1	6.380E-02	1.280E-03	1.280E-03

Source - Source Identification

Receptor - Receptor Identification

Unit Conc. - Unit emission rate ground level concentration in UG/M³/g/s

Area Dep. - Unit emission rate area weighted deposition flux in UG/M²/s/g/s

Mass Dep. - Unit emission rate mass weighted deposition flux in UG/M²/s/g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:07:00 VERSION: 42688

Emission rate of Pollutants from all Sources is:

Source	Pollutant	Emission Rate
1	BA	2.720E-09
	BENZ	7.320E-06
	BE	2.380E-08
	BEHP	1.520E-06
	BRCL2ME	1.070E-06
	CHBR3	3.620E-05
	BBPH	1.600E-07
	CCL4	9.500E-07
	CLBENZ	2.160E-06
	CHCL3	2.120E-06
	CD	1.140E-09
	CR	4.790E-07
	CU	1.250E-06
	DIETHPH	1.410E-06
	MDCBENZ	1.500E-07
	ODCBENZ	1.930E-07
	PDCBENZ	1.090E-07
	ME2PHEN	2.300E-06
	DIOXANE	3.940E-07
	EDC	7.740E-12
	ETHGLYC	4.410E-06
	HEXBENZ	2.600E-07
	PB	8.160E-09
	HG	2.740E-07
	CH2BR2	6.330E-06
	CH2CL2	3.160E-06
	NAPHTH	7.900E-06
	NI	7.140E-08
	NO2BEN	4.800E-06
	NO2PHEN	2.090E-05
	PFORMAL	2.520E-08
	PHENOL	2.120E-06
	AG	2.220E-07
	TCDD	9.800E-12
	PCE	1.120E-06
	1122PCA	8.930E-10
	TCE	2.300E-06
	CL3BENZ	2.600E-07
2	BA	0.000E+00
	BENZ	5.200E-08
	BE	0.000E+00
	BEHP	0.000E+00
	BRCL2ME	0.000E+00
	CHBR3	0.000E+00
	BBPH	0.000E+00

Source - Source Identification

Pollutant - Pollutant Identification

Emission rate - Emission rate of each pollutant in g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:07:00 VERSION: 42688

Source	Pollutant	Emission Rate
	CCL4	0.000E+00
	CLBENZ	0.000E+00
	CHCL3	1.180E-08
	CD	0.000E+00
	CR	0.000E+00
	CU	0.000E+00
	DIETHPH	0.000E+00
	MDCBENZ	0.000E+00
	ODCBENZ	0.000E+00
	PDCBENZ	0.000E+00
	ME2PHEN	0.000E+00
	DIOXANE	4.020E-07
	EDC	1.690E-11
	ETHGLYC	1.340E-08
	HEXBENZ	0.000E+00
	PB	0.000E+00
	HG	0.000E+00
	CH2BR2	0.000E+00
	CH2CL2	1.320E-08
	NAPHTH	4.780E-11
	NI	0.000E+00
	NO2BEN	0.000E+00
	NO2PHEN	0.000E+00
	PFORMAL	8.400E-10
	PHENOL	1.560E-10
	AG	0.000E+00
	TCDD	0.000E+00
	PCE	7.550E-10
	1122PCA	1.430E-10
	TCE	4.330E-09
	CL3BENZ	0.000E+00

Source - Source Identification
Pollutant - Pollutant Identification
Emission rate - Emission rate of each pollutant in g/s

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:07:00 VERSION: 42688

The Gastrointestinal Factors are:

Symbol	Inhal	Soil	Plant	Fish	D&B	Dermal	Water	Milk	Tissue
BA	1.000	1.000	1.000	0.000	1.000	0.010	1.000	0.000	1.000
BENZ	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BE	1.000	0.010	0.010	0.000	0.000	0.010	1.000	0.000	0.100
BEHP	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
BRCL2ME	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHBR3	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BBPH	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
CCL4	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CLBENZ	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHCL3	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CD	1.000	1.000	0.060	0.000	0.000	0.010	1.000	0.000	1.000
CR	1.000	1.000	0.050	0.000	0.000	0.010	1.000	0.000	1.000
CU	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
DIETHPH	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
MDCBENZ	1.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000
ODCBENZ	1.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000
PDCBENZ	1.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000
ME2PHEN	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
DIOXANE	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EDC	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ETHGLYC	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HEXBENZ	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
PB	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
HG	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
CH2BR2	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CH2CL2	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NAPHTH	1.000	1.000	1.000	0.000	0.000	0.010	1.000	1.000	1.000
NI	1.000	0.100	0.100	0.000	0.000	0.010	1.000	0.000	0.100
NO2BEN	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
NO2PHEN	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
PFORMAL	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PHENOL	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000
AG	1.000	1.000	1.000	0.000	0.000	0.010	1.000	0.000	1.000
TCDD	1.000	0.300	0.300	0.860	1.700	0.010	0.300	1.700	1.000
PCE	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1122PCA	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TCE	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CL3BENZ	1.000	1.000	1.000	0.000	1.000	0.010	1.000	1.000	1.000

Symbol - Pollutant name
Inhal - Inhalation absorbtion efficiency
Soil - Soil ingestion GI factor
Plant - Plant ingestion GI factor
Fish - Fish consumption GI factor
D&B - Beef and dairy consumption GI factor
Dermal - Dermal uptake factor
Water - Water consumption GI factor
Milk - Mothers milk consumption GI factor
Tissue - GI factor for pollutants into plant tissue

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wine2.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:07:00 VERSION: 42688

Acceptable Daily Intakes for all Pollutants are:

Pollutant	Inhalation ADI	Ingestion ADI
BA	1.000E-01	5.000E-02
BENZ	0.000E+00	0.000E+00
BE	0.000E+00	5.000E-03
BEHP	0.000E+00	2.000E-02
BRCL2ME	0.000E+00	2.000E-02
CHBR3	3.400E-03	2.000E-02
BBPH	2.000E-01	2.000E-01
CCL4	0.000E+00	7.000E-04
CLBENZ	5.000E-03	2.000E-02
CHCL3	0.000E+00	1.000E-02
CD	0.000E+00	3.000E-04
CR	0.000E+00	5.000E-03
CU	1.400E-04	8.600E-02
DIETHPH	3.400E-03	8.000E-01
MDCBENZ	4.000E-02	9.000E-02
ODCBENZ	4.000E-02	9.000E-02
PDCBENZ	2.000E-01	0.000E+00
ME2PHEN	6.000E-04	6.000E-04
DIOXANE	6.100E-02	0.000E+00
EDC	0.000E+00	0.000E+00
ETHGLYC	8.500E-02	2.000E+00
HEXBENZ	0.000E+00	0.000E+00
PB	4.300E-04	1.400E-03
HG	6.800E-05	3.000E-04
CH2BR2	2.500E-01	2.500E-01
CH2CL2	8.600E-01	6.000E-02
NAPHTH	3.400E-02	4.000E-01
NI	0.000E+00	0.000E+00
NO2BEN	6.000E-04	5.000E-04
NO2PHEN	6.500E-04	6.500E-04
PFORMAL	0.000E+00	0.000E+00
PHENOL	1.300E-02	6.000E-01
AG	6.800E-06	3.000E-03
TCDD	0.000E+00	0.000E+00
PCE	0.000E+00	1.000E-02
1122PCA	0.000E+00	0.000E+00
TCE	0.000E+00	0.000E+00
CL3BENZ	3.000E-03	2.000E-02

Pollutant - Pollutant name

Inhalation ADI - Acceptable daily intake for inhalation of pollutant

Ingestion ADI - Acceptable daily intake for ingestion of pollutant

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:07:02 VERSION: 42688

PLANT					
RECEPTOR NUMBER 1					
		70 YEARS		30.0 YEARS	
POLLUTANT	DOSE	RISK	DOSE	RISK	
BA	5.709E-13		3.090E-13		
BE	3.989E-14	3.351E-13	2.273E-14	8.182E-14	
BEHP	6.621E-11	9.269E-13	6.621E-11	3.972E-13	
BBPH	7.482E-12		7.481E-12		
CD	1.002E-12		4.309E-13		
CR	9.914E-12		4.816E-12		
CU	1.325E-09		5.976E-10		
DIETHP	6.056E-11		6.056E-11		
ME2PHE	2.479E-09		1.117E-09		
HEXBEN	7.260E-11	1.234E-10	6.199E-11	4.517E-11	
PB	8.508E-13		5.578E-13		
HG	3.708E-10		1.654E-10		
NAPHTH	3.284E-10		3.284E-10		
NI	1.822E-12	3.098E-12	9.500E-13	6.921E-13	
NO2BEN	7.017E-08		3.019E-08		
NO2PHE	8.549E-08		3.714E-08		
PHENOL	9.789E-11		9.789E-11		
AG	1.451E-10		6.745E-11		
TCDD	7.159E-16	9.521E-11	5.338E-16	3.043E-11	
CL3BEN	6.024E-11		5.175E-11		

PATHWAY RISK ==>	2.230E-10		7.677E-11		

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:07:02 VERSION: 42688

RISK TABLE FOR RECEPTOR : 1

POLLUTANT	PATHWAY									TOTAL
	INHALATION	SOIL	PLANT	FISH	DAIRY	DERMAL	WATER	HUMAN MILK		
BENZ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE	0.000E+00	0.000E+00	3.351E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.351E-13
BEHP	0.000E+00	0.000E+00	9.269E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.269E-13
BRCL2M	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CCL4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CHCL3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CR	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PDCBEN	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DIOXAN	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EDC	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HEXBEN	0.000E+00	0.000E+00	1.234E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.234E-10
CH2CL2	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI	0.000E+00	0.000E+00	3.098E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.098E-12
PFORMA	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TCDD	0.000E+00	0.000E+00	9.521E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.521E-11
PCE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1122PC	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TCE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

TOTAL -	0.000E+00	0.000E+00	2.230E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.230E-10

*** TOTAL 30.0 YR RISK ==> 7.677E-11 ***

*** TOTAL 70.0 YR RISK ==> 2.230E-10 ***

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:07:02 VERSION: 42688

Pollutant Name	Inhalation Exposure	Inhalation ADI	Safety Factor	Ingestion Exposure	Ingestion ADI	Safety Factor
BA	0.00E+00	1.00E-01	0.00E+00	5.71E-13	5.00E-02	8.76E+10
BENZ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BE	0.00E+00	0.00E+00	0.00E+00	1.29E-12	5.00E-03	3.89E+09
BEHP	0.00E+00	0.00E+00	0.00E+00	6.62E-11	2.00E-02	3.02E+08
BRL2M	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-02	0.00E+00
CHBR3	0.00E+00	3.40E-03	0.00E+00	0.00E+00	2.00E-02	0.00E+00
BBPH	0.00E+00	2.00E-01	0.00E+00	7.48E-12	2.00E-01	2.67E+10
CCL4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.00E-04	0.00E+00
CLBENZ	0.00E+00	5.00E-03	0.00E+00	0.00E+00	2.00E-02	0.00E+00
CHCL3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-02	0.00E+00
CD	0.00E+00	0.00E+00	0.00E+00	1.05E-12	3.00E-04	2.87E+08
CR	0.00E+00	0.00E+00	0.00E+00	2.88E-11	5.00E-03	1.74E+08
CU	0.00E+00	1.40E-04	0.00E+00	1.33E-09	8.60E-02	6.49E+07
DIETHP	0.00E+00	3.40E-03	0.00E+00	6.06E-11	8.00E-01	1.32E+10
MDCBEN	0.00E+00	4.00E-02	0.00E+00	0.00E+00	9.00E-02	0.00E+00
ODCBEN	0.00E+00	4.00E-02	0.00E+00	0.00E+00	9.00E-02	0.00E+00
PDCBEN	0.00E+00	2.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ME2PHE	0.00E+00	6.00E-04	0.00E+00	2.48E-09	6.00E-04	2.42E+05
DIOXAN	0.00E+00	6.10E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EDC	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ETHGLY	0.00E+00	8.50E-02	0.00E+00	0.00E+00	2.00E+00	0.00E+00
HEXBEN	0.00E+00	0.00E+00	0.00E+00	7.26E-11	0.00E+00	0.00E+00
PB	0.00E+00	4.30E-04	0.00E+00	8.51E-13	1.40E-03	1.65E+09
HG	0.00E+00	6.80E-05	0.00E+00	3.71E-10	3.00E-04	8.09E+05
CH2BR2	0.00E+00	2.50E-01	0.00E+00	0.00E+00	2.50E-01	0.00E+00
CH2CL2	0.00E+00	8.60E-01	0.00E+00	0.00E+00	6.00E-02	0.00E+00
NAPHTH	0.00E+00	3.40E-02	0.00E+00	3.28E-10	4.00E-01	1.22E+09
NI	0.00E+00	0.00E+00	0.00E+00	1.82E-11	0.00E+00	0.00E+00
NO2BEN	0.00E+00	6.00E-04	0.00E+00	7.02E-08	5.00E-04	7.13E+03
NO2PHE	0.00E+00	6.50E-04	0.00E+00	8.55E-08	6.50E-04	7.60E+03
PFORMA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PHENOL	0.00E+00	1.30E-02	0.00E+00	9.79E-11	6.00E-01	6.13E+09
AG	0.00E+00	6.80E-06	0.00E+00	1.45E-10	3.00E-03	2.07E+07
TCDD	0.00E+00	0.00E+00	0.00E+00	1.00E-15	0.00E+00	0.00E+00
PCE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-02	0.00E+00
1122PC	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TCE	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CL3BEN	0.00E+00	3.00E-03	0.00E+00	6.02E-11	2.00E-02	3.32E+08

POLLUTANT - Pollutant identifier

INHALATION EXPOSURE - Exposure through inhalation of pollutant

INHALATION ADI - Inhalation Acceptable Daily Intake

INHALATION SAFETY FACTOR - ADI divided by exposure

INGESTION EXPOSURE - Exposure through all pathways other than inhalation

INGESTION ADI - Ingestion Acceptable Daily Intake

INGESTION SAFETY FACTOR - ADI divided by exposure

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:07:02 VERSION: 42688

MAXIMUM TOTAL 30.00 YR RISK ==> 7.68E-11 ***

MAXIMUM TOTAL 70.0 YR RISK ==> 2.23E-10 ***

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wine2.out

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:07:02 VERSION: 42688

70.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
1	0.	0.00E+00	0.00E+00	2.23E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.23E-10	0.00E+00
										TOTAL BURDEN =	0.00E+00

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*** LLNL CAPCOA HRA upper bound ***

DATE: 11-30-1989 TIME: 9:07:02 VERSION: 42688

30.0 YEAR TOTAL RISK & BRDN

RECEPTOR	POP	INHALE	SOIL	PLANT	FISH	BEEF	DERMAL	WATER	MILK	TOTAL	BURDEN
1	0.	0.00E+00	0.00E+00	7.68E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.68E-11	0.00E+00
										TOTAL BURDEN =	0.00E+00