MARTIN MARIETTA

Y/TS-1015/R1

Resource Conservation and Recovery Act (RCRA) General Contingency Plan for Hazardous Waste Treatment, Storage, and Disposal Units at the Oak Ridge Y-12 Plant

B. E. Skaggs

Environmental Management Department

Health, Safety, Environment, and Accountability Organization

November 1993

Prepared by the
Oak Ridge Y-12 Plant
Oak Ridge, Tennessee 37831
Managed by
MARTIN MARIETTA ENERGY SYSTEMS, INC.
for the
U.S. DEPARTMENT OF ENERGY
under contract DE-AC05-84OR21400

MANAGED BY
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RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)
GENERAL CONTINGENCY PLAN FOR
HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL UNITS
AT THE OAK RIDGE Y-12 PLANT

GENERAL FACILITY DESCRIPTION

The Oak Ridge Y-12 Plant was built by the U.S. Army Corps of Engineers in 1943 as part of the Manhattan Project and given the original mission of separating the fissionable isotope of uranium by the electromagnetic process. After World War II, the electromagnetic process was discontinued in favor of the more economical gaseous diffusion process. In recent years, the Y-12 Plant staff has developed this facility into a highly sophisticated manufacturing and developmental engineering organization.

The U.S. Department of Energy (DOE) owns and operates the Y-12 Plant. Martin Marietta Energy Systems, Inc., co-operates and manages the Y-12 Plant. Since 1984, the facility has been managed by Martin Marietta Energy Systems, Inc. personnel, under a prime contract with the U.S. DOE. The contract is administered by personnel at the DOE, Oak Ridge Operations.

The Y-12 Plant occupies approximately 800 acres in Anderson County, Tennessee, and is located southwest of the city of Oak Ridge. The site employs approximately 5,000 people, including employees of the Oak Ridge National Laboratory assigned to the Y-12 Plant. Two surface streams, East Fork Poplar Creek and Bear Creek, border the facility on the south, east, and southwest sides of the plant. There is access to the Y-12 Plant, controlled on Bear Creek Road, on the north side of the facility, indirect access from Scarboro Road on the east side of the facility, and indirect access to the facility on the south side via Bethel Valley Road. A controlled access road from Bethel Valley Road by way of Mt. Vernon Road is located on the southwest side of the site.

It is the mission of the Y-12 Plant to serve as a key manufacturing technology center for the development and demonstration of unique materials, components, and services of importance to the DOE and the nation. This is accomplished through the reclamation and storage of nuclear materials, manufacture of nuclear materials, manufacture of components for the defense capabilities of the nation, support to national security programs, and services provided to other customers as approved by DOE.

GENERAL INFORMATION

The Y-12 RCRA Contingency Plan will be continually reviewed and revised if any of the following occur: the facility permit is revised, the plan is inadequate in an emergency, the procedures herein can be improved, the operations of the facility change in a way that alters the

plan, the emergency coordinator changes, or the emergency equipment list changes. Copies of the Y-12 Emergency Management Plan are available at the Plant Shift Superintendent's Office and the Emergency Management Office. This document serves to supplement the Y-12 Emergency Management Plan to be appropriate for all RCRA hazardous waste treatment, storage, or disposal units. The 90-day accumulation areas at the Y-12 Plant have a separate contingency supplement as required by RCRA and are separate from this supplement.

The facility name, address, identification number, and owner/operator name are provided below:

U.S. Department of Energy Oak Ridge Y-12 Plant
Bear Creek Road
Post Office Box 2001
Oak Ridge, Tennessee 37831-8555
EPA ID TN3890090001
Owned and operated by U.S. Department of Energy
Managed and co-operated by Martin Marietta Energy Systems, Inc.

The overall layout of the Y-12 Plant and the location of RCRA units are shown in Figure 1, "Y-12 Plant RCRA Waste Unit Locations." Figure 2, "Y-12 Plant Emergency Facilities Directory," shows the locations of assembly stations, boundaries, and access controls to the plant. Figure 3, "Y-12 Plant Bear Creek Burial Ground Waste Unit Map," shows the units located at the west end of the plant, Gamewell alarm box locations, boundaries, and access controls to these areas. In the event of an emergency, the Plant Emergency Director (PED) will direct and inform all personnel of the evacuation routes.

EMERGENCY COORDINATORS

The emergency coordinator at the Y-12 Plant is the PED. The Y-12 Plant has several Plant Shift Superintendents (PSS) who share the responsibilities of the PED. At least one PSS is on duty 24 hours per day, every day of the year, and can be reached at (615) 574-7172 at the Emergency Operations Center (EOC) in Building 9706-2. The alternate EOC is located in Building 9709 and the phones are transferred if the operations are being conducted at this building. The PSS on duty is responsible for providing continuous plantwide emergency direction as the PED. If the PED is incapacitated during an emergency, the Site Security Commander on duty is his alternate until another PSS can report to the scene. The PSS, or alternate, has access to names, telephone numbers, and addresses of all emergency personnel and will determine who must be contacted to provide emergency activity support.

The duties of the PED as the Emergency Coordinator include:

- Receiving notice that an incident has occurred;
- Evaluating the threat;
- Activating internal alarm systems to notify or evacuate personnel, if appropriate;
- Proceeding immediately to obtain information concerning released materials and initiating appropriate activities for characterizing and abating the release;
- Ensuring that necessary on-site notifications are made;
- Performing an assessment of the potential for off-site effects upon the public health and environment and notifying DOE-Oak Ridge EOC of the same;
- Initiating and directing a plan of action;
- Mobilizing sufficient forces, including technical assistance, to respond to the emergency at hand;
- Directing the overall effort to respond to plant emergencies in such a way as to ensure that all emergency groups, both local and plantwide function as a team.
- Delegating authority in any capacity necessary if the need arises during an emergency;
- Authorizing all rescue efforts requiring any employee experiencing illness or injury;
- Seeing that off-site medical facilities are notified immediately when a seriously ill or injured patient is en route, and provide the nature of the injury or illness;
- Ensuring that a medical department staff member, a supervisor, or someone knowledgeable as to the circumstances or acquainted with the details of any serious accident or illness accompanies the patient to the emergency room;
- Determining the accessibility of plant areas after an accident and authorizing reentry of evacuated areas;
- Under special conditions, requesting the designation of a technical group to assist in

evaluating the advisability of reentry;

- Terminating emergency status when the threat is entirely gone;

- Authorizing, when applicable, the sounding of the "all clear" signal at the termination of an emergency; and

- Restoring the plant to normal operations.

The names and work numbers of the PSSs are provided below:

Name	Building Location	Work Phone
W. M. Bradley	9706-2	(615) 574-7172
L. K. Brooks	9706-2	(615) 574-7172
J. D. Chapman	9706-2	(615) 574-7172
E. Manis	9706-2	(615) 574-7172
P. C. Norris	9706-2	(615) 574-7172
C. L. Beeler	9706-2	(615) 574-7172
G. L. Calvert	9706-2	(615) 574-7172

Emergency resource books containing lists of emergency response telephone numbers (Emergency Response Organization personnel, facilities, off-site agencies, outside support organizations, etc.) are readily available to the PED in the EOC and alternate EOC. Telephone listings are revised as changes occur. In addition, a quarterly review is conducted by the Emergency Preparedness Operations Department Manager.

IMPLEMENTATION

The decision to implement this contingency plan, as part of the Emergency Management Plan, depends upon whether an imminent or actual incident could threaten human health or the environment.

The contingency plan will be implemented by the PED in the following situations:

- A fire and/or explosion occurs, such that:
  - The potential for human injury exists;
  - Toxic fumes that could endanger human health or the environment are released;

- The fire could spread on site or off site and possibly ignite other flammable materials or cause heat-induced explosions;
- The use of water and/or chemical fire suppressants could result in contaminated runoff that could endanger human health or the environment; and/or
- An imminent danger exists that an explosion could ignite other hazardous wastes at the facility and possibly result in the release of toxic materials.

- A spill or release of a hazardous material occurs such that:
  - The spill could result in release of flammable liquids or vapors, thus causing a fire or gas explosion hazard;
  - The spill could cause the release of toxic liquids or fumes that could endanger human health or the environment; and/or
  - The spill cannot be contained on site, resulting in off-site soil contamination and/or ground or surface water pollution that could endanger human health or the environment.

Many ways of discovering a spill or release of chemicals are possible. These include: routine and scheduled inspections of process equipment and material storage areas; unusual or strong chemical odors which may indicate a leak; and instrumentation such as level alarms, automatic sump pumps, and pH meters which may also reveal chemical spills or system malfunctions.

CONTROL PROCEDURES – INCIDENT COMMANDER

The incident commander is defined as the person assuming command and control of emergency response at the scene of the incident. The incident commander will be the operations supervisor on duty for a specific unit or, in the absence of a supervisor, the first arriving emergency response officer designated by the PED. The incident commander will be responsible for the following:

- Initial assessment of the incident scene to the PED;
- Establishing control and setting up the command post for emergency response;
- Initial evaluation of the magnitude of the problem;
- Evacuation of personnel from immediate danger;
- Arranging for assembly, organization, and briefing of emergency response personnel who have been summoned;
- Providing updated information on conditions, progress of response, and additional manpower or equipment needs to the PED;

- Directing operational changes needed (e.g., shutting off process flows);

- Implementing applicable prearranged plans and procedures; and

- Continuing to provide incident control until relieved by an alternate incident commander.

The following actions will be taken in areas affected by a fire or explosion:

1. Work in the affected areas will be shut down immediately.

2. Feedlines and additional equipment will be shut down, as necessary and practical.

3. The PED will be contacted.

4. The area will be cleared of all personnel not actively involved in fighting the fire. These persons are to report to the designated assembly points for accountability.

5. All injured persons will be removed, and medical treatment will be administered by Medical Department personnel with outside assistance, as required.

EMERGENCY RESPONSE PROCEDURES – EMERGENCY COORDINATOR

The PED is responsible for the overall direction of emergency response efforts as follows:

- Directs emergency service units and local emergency squads.

- Ensures that the incident commander at the scene of the emergency, evaluates:
  - Radiation and general safety situations as they affect the immediate and adjacent areas,
  - Need for interrupting utility services such as process water, ventilation, oxygen, natural gas, and electricity, and
  - Need for operational changes.

- Considers the need for and arranges for any large-scale alert, evacuation, general alert, invocation of mutual assistance agreements, and procurement of additional emergency personnel or emergency equipment.

- Keeps Y-12 Plant management and appropriate staff groups informed.

- Determines when the emergency is over, and orders the "all clear" signal.

The Emergency Management Department staff is responsible for:

- Y-12 Plant-wide emergency planning.
- Updating the Emergency Management Plan.
- Planning for practice exercises.
- Coordinating the organization and training of emergency service units and local emergency organizations.
- Ensuring that plans are in place for receiving and evaluating emergencies.
- Ensuring that plans are in place for activating internal alarm systems to alert/evacuate personnel.
- Planning coordination for the emergency response team; determine if outside assistance is required.
- Ensuring that plans are in place to report incidents to personnel at the DOE, Oak Ridge Operations in accordance with DOE Order 5000.3A "Occurrence and Processing of Operations Information."

Notification

The employee discovering a potential emergency incident will notify his immediate supervisor and/or the PED. The PED will immediately activate the internal alarm system to notify or evacuate personnel, if appropriate. The PED will also notify the Plant Manager, the Production Manager, the Environmental Coordinator, and Organization Managers of the operations involved. In the event that outside assistance is required, the PED will notify appropriate state and/or emergency response agencies.

Identification of Hazardous Materials

The incident commander will immediately attempt to identify the character, exact source, amount, and aerial extent of the material involved in the fire or release. The initial identification method will be by visual analysis of the material and location of the release. Plant records, including inventories and process and waste log sheets, are available at the operating department offices of the RCRA units to aid in estimating the composition and quantity of released material. In the event of a spill, a sample of the spilled material is taken if the material enters a storm drain, there is some question as to the identity of the material, or the material is suspected to contain

polychlorinated biphenyls (PCBs). The Health, Safety, Environment, and Accountability Organization staff will sample to verify hazardous material identification, determine boundaries of contaminated areas and contaminant concentrations, and verify proper cleanup after cleanup activities are completed.

Information such as storm sewer locations and topographic information is available to support the PED in the process of identifying potential flow/contamination paths and determine appropriate control actions.

Hazard Assessment

Assessment of possible hazards to human health or the environment will be made using the following methods:

1. Process knowledge (i.e., knowledge of the nature of waste materials released);
2. Review of Material Safety Data Sheets, if available;
3. Chemical analysis/monitoring data;
4. Results of modeling for releases to air, surface water, or groundwater; and
5. Specific health-based and environmental criteria or limits which may be exceeded.

Based on the hazard assessment, evacuation of the immediate unit area, entire facility, or local areas outside the facility may be necessary.

Off-Site Notification/Evacuation

The Y-12 Emergency Management Plan describes the methods used for notification of Y-12 emergency response personnel and appropriate federal, state, and local emergency response centers. Individuals or groups that may be notified include, but are not limited to, the following:

- DOE Oak Ridge Operations EOC,
- DOE Headquarters EOC (through the Oak Ridge Operations EOC voice bridge),
- Tennessee Emergency Management Agency,
- National Response Center,
- Local Emergency Planning Councils,
- Affected county notification points,
- City of Oak Ridge (Anderson County),
- Regional U.S. Environmental Protection Agency, and
- Other agencies as required by regulatory guidance.

Evacuation of nonessential personnel is ordered by the PED if it is determined that a threat to the safety of plant personnel exists. Evacuation routes will be determined by the PED.

Prevention of Recurrence or Spread

After incident mitigation, a recovery manager will be appointed to return the incident scene to preincident conditions and analyze the root cause of the incident.

Storage and Treatment of Released Material

Any hazardous materials that results from a release, fire, or explosion at the Y-12 Plant will be contained, removed, and placed in 55-gallon drums (or smaller containers if appropriate). Leaking or damaged containers will be placed in 85-gallon overpack drums so they can be stored until treatment or disposal arrangements are finalized.

Contaminated absorbent materials, protective clothing, and other disposable material used in remediation of the emergency and subsequent decontamination activities will be placed in 55-gallon drums and stored at a RCRA storage unit pending treatment or disposal. These items will be handled with the same degree of caution as the wastes themselves so that public health and the environment are not further threatened.

Immediately after an emergency, the emergency coordinator will make arrangements for treatment, storage, or disposal of recovered waste, contaminated soil, surface water, or any other contaminated material. Emergency and spill response equipment available for cleanup, storage, and treatment are identified in the Y-12 Emergency Management Plan.

Incompatible Waste

In order to prevent reactions caused by proximity of incompatible substances, wastes which have been spilled or released must be segregated from other wastes or materials which are incompatible. It is a duty of the Spill Response Coordinator to ensure that wastes which may be incompatible with the released material are not treated, stored, or disposed of in the vicinity of the spill or fire until cleanup procedures are completed.

Incompatible wastes are unlikely to be treated, stored, or located in the affected areas until cleanup is completed because of the waste segregation practices used at the facility. If possible, no additional wastes will be stored in the affected area until the cleanup is completed. If waste storage there is necessary, wastes will be placed only in those areas where no incompatible wastes are present.

Postemergency Equipment Maintenance

All emergency response elements will ensure that team equipment is properly decontaminated, supplies are restocked, and the team is returned to preemergency readiness.

Container Spills and Leakage

In the event of a hazardous material spill or release, the following general procedures will be used for rapid and safe response and control of the situation. Spills or releases and impending spills or releases discovered during routine inspections will be handled in the same manner as described below for spill and release emergencies. These are general guidelines, and circumstances may dictate some alterations to these procedures.

If an employee discovers a chemical spill or process upset resulting in a hazardous material release, he or she will immediately report it to the area supervisor. The area supervisor or the employee will contact the PED. When contacted, the PED will obtain information pertaining to the following:

1. The material spilled or released,
2. Location and source of the release or spillage of hazardous material,
3. An estimate of the quantity released and the rate at which it is being released,
4. The direction in which the spill, vapor, or smoke release is heading,
5. Any injuries involved, and
6. Fire and/or explosion or possibility of these events.

This information will help the PED to assess the magnitude and potential seriousness of the spill or release. The PED will contact and deploy the necessary in-plant personnel. If additional assistance is required, the PED will also contact the other Oak Ridge plants that have agreed to provide assistance and the agencies discussed in the Coordination Agreements section of this plan.

The initial response to any emergency will be to protect human health and safety, and then the environment. Identification, containment, treatment, and disposal assessment will be the secondary responses.

Medical assistance for injured persons will be obtained from the Y-12 Health Services staff.

Cleanup personnel summoned by the PED will don protective clothing and equipment, as specified by the Health, Safety, Environment, and Accountability Organization staff. If a flammable waste is involved, all ignition sources will be removed, and spark and explosion-proof equipment and clothing will be used for containment and cleanup activities. If possible, cleanup personnel will try to stop the leak. Special materials, such as tank patch kits, will be kept on hand for temporary repairs. All surrounding materials that could be reactive with the waste materials will be removed. The major components of the waste will be determined.

Absorbent pads, booms, earth, sandbags, sand, and other inert materials will be used to contain,

divert, and clean up a spill if it has not been contained by a dike or sump. Sewer plugs are available, if required, to isolate a spill. Spills contained within a dike or sump may be pumped back into the appropriate storage tank or drum, if it is structurally sound. All containment and cleanup materials will be placed in drums for proper disposal. Some items, such as absorbent rags or booms, may have to be cut up. All recovered liquid wastes and contaminated soil that cannot be returned to their original storage tanks or containers will be placed in drums for removal to an approved storage or disposal site.

Most tank and container spills and leaks are contained within the dikes and sumps provided in the tank and container areas. Small spills occurring in a diked area are directed to the sump provided in that area. Immediately after the spill is detected, the Waste Management Organization staff will be summoned to remove any standing liquids (as described above) and arrange to have the spilled material taken to a unit approved to handle that particular waste. If necessary, a portable sump pump will be used to pump the diluted waste material into 55-gallon drums. The transfer of the spilled material will be performed within 24 hours or at the earliest practical time if it is demonstrated that the material cannot be transferred within 24 hours.

If, for some reason, a chemical spill is not contained within a dike or sump area, an appropriately sized area of isolation will be established around the spill. The size of the area will generally depend on the size of the spill and the materials involved. An area at least 50 feet in all directions will be isolated. For large spills, an area at least 100 feet in all directions will be isolated. When any spill occurs, only those persons involved in overseeing or performing emergency operations will be allowed within the designated hazard area. If possible, the area will be roped or otherwise blocked off. All persons not actively involved in managing the spill will be kept upwind.

If the PED determines that Y-12 and the other DOE plants are unable to handle the emergency, then local, state, and federal authorities will be notified of the situation. When necessary, evacuation of all potentially affected plant areas will begin as soon as possible.

All emergency equipment used for spill management must be cleaned by the responsible personnel so that it is fit for use prior to resumption of plant operations in the affected areas.

Tank Spills and Leakage

In the event of a hazardous material spill or release, the procedures described for container spills and leakage apply for tank releases.

EMERGENCY EQUIPMENT

A listing of the emergency and spill response equipment is provided in the Y-12 Emergency Management Plan. In addition, emergency equipment is maintained at the units in this plan for minor releases which include, but is not limited to, absorbent material, fire extinguishers, shovels, shoe scuffs, gloves, eye protection, and protective clothing. The inspection lists and frequency for inspection of the spill response equipment at the units are presented in the Y-12 Emergency Management Plan.

COORDINATION AGREEMENTS

The Y-12 Emergency Management Plan details all coordination agreements currently held with local agencies. A copy of this plan has been provided to all mutual aid organizations. Designated emergency coordinators will commit the necessary resources to implement the contingency plan.

EVACUATION PLAN

All emergencies at the Y-12 Plant warrant prompt and deliberate action. Criteria for evacuation have been established. The PED is responsible for determining whether evacuation is necessary. The Y-12 Emergency Management Plan contains details of this criteria.

REQUIRED REPORTS

The PED will note in the operating record the time, date, and details of any incident which required implementation of the Contingency Plan. Internal reports will be filed as required by DOE and Martin Marietta Energy Systems, Inc., personnel.

Within 15 days after the incident, personnel from the Y-12 Plant will submit a written report on the incident which required implementation of the Contingency Plan to the DOE staff for review and transmittal to the Commissioner of the Tennessee Department of Environment and Conservation, as required by Tennessee Rule 1200-1-11- .06(6)(g)(10). The report will include:

- Name, address, and telephone number of the owner or operator;
- Name, address, and telephone number of the facility;
- Date, time, and type of incident (e.g., fire, explosion);
- Name and quantity of material(s) involved;
- The extent of injuries, if any;

- An assessment of actual or potential hazards to public health or the environment, where this is applicable; and

- Estimated quantity and disposition of recovered material that resulted from the incident.

APPENDIX

UNIT-SPECIFIC EMERGENCY and WASTE DESCRIPTIONS

This section summarizes unit-specific contingency and waste description information for the treatment, storage, and disposal units below.

Cyanide Treatment Unit

The Cyanide Treatment Unit is located in Building 9201-5N. The nearest Gamewell box is located on the south wall outside of Building 9201-5N. This Gamewell box is connected to the existing plant Gamewell Fire Alarm System and Plant Monitoring System. A telephone is available in the room where the unit is located. An eyewash and safety shower station is also available in this room. Two-way radios are available to communicate with the PED office, if emergency assistance is necessary.

The Cyanide Treatment Unit treats cyanide wastes that have been generated in various plant operations.

Kerr Hollow Quarry Treatment Unit

The Kerr Hollow Quarry Treatment Unit is located 0.4 miles west of the intersection of Scarboro Road and Bethel Valley Road on the north side of Bethel Valley Road. A public address system is installed at this unit, along with closed circuit television. Two-way radios are used, and a telephone is available in the guard shack for communication with the PED office, if emergency assistance is required.

This unit no longer receives hazardous waste. It is currently undergoing closure.

Garage Underground Tanks

The Garage Underground Tanks are located near Building 9737. A Gamewell box is located nearby at the service station and connected to the existing plant Gamewell Fire Alarm System and Plant Monitoring System. Two-way radios are used by personnel at this site to provide communication with the PED office, if emergency assistance is needed. A phone is available in Building 9712 East End Garage, as well as an eyewash/safety shower station.

This unit no longer receives hazardous waste. It is currently undergoing closure.

Walk-In Pits

The Walk-In Pits are located north of Disposal Area Remedial Action (DARA) Solids Storage Unit, in the Bear Creek Burial Grounds. The nearest available phone, Gamewell box, eyewash

and safety shower are located at the DARA Liquid Storage and Treatment Unit. The Gamewell box is connected to the existing plant Gamewell Fire Alarm System and Plant Monitoring System. Two-way radios are used for communication with the PED office, if emergency assistance is needed.

This unit is currently undergoing closure.

Interim Drum Yard

Interim Drum Yard is located near Building 9720-32. The nearest available Gamewell box is located on the east end of Building 9720-32. This Gamewell box is connected to the existing plant Gamewell Fire Alarm System and the Plant Monitoring System. A portable eyewash and safety shower are used by personnel at this unit. Two-way radios are used for communication with the PED if emergency assistance is needed, and a phone is also available nearby in Building 9401-5.

This unit no longer receives hazardous waste and the closure plan has been submitted for this unit. Approval and closure activities are pending.

Building 9720-9, Storage Unit

Building 9720-9 is located on Third Street. Two Gamewell boxes are located at the east and west sides of the building and connected to the existing plant Gamewell Fire Alarm System and the Plant Monitoring System. Telephones and two-way radios are also used by personnel to provide communication with the PED office, if emergency assistance is needed. Two eyewash/safety showers are provided and located at the west and south sides of the building.

This unit provides storage for hazardous and nonhazardous waste and uranium-contaminated flammable materials. Waste is stored at this unit until waste analysis and appropriate disposal (bulk storage and/or off-site shipment) can be arranged. All classes of RCRA wastes, except for K-listed wastes, and hazardous wastes from specific sources (40 CFR Part 261.32 and Tennessee Rule 1200-1-11.02(4)) are stored in this unit.

RCRA and Mixed Waste Storage and Staging Unit, Building 9720-31

Building 9720-31 is located on West Third Street. Two Gamewell boxes are located on the east and west side of the building and connected to the existing plant Gamewell Fire Alarm System and the Plant Monitoring System. Telephones and two-way radios are also used by personnel to provide communication with the PED offices, if emergency assistance is needed.

This unit is used to store solids, liquids, and sludge wastes. It is a one-story structure constructed of light-weight, concrete block, masonry walls and partitions. The building is partitioned into

fifteen rooms: one supply room, seven staging rooms, and seven storage rooms. Normally, the largest containers in any of the staging or storage rooms are 55-gallon drums, however, 85-gallon overpack containers may be used to store waste. Waste stored in the staging and storage rooms may be in Department of Transportation-specification containers or the original product containers.

Building 9811-1 RCRA Tank Storage Unit (OD-7)

Building 9811-1 RCRA Tank Storage Unit is located at the intersection of West Second Street and K Road. It is served by an auxiliary fire alarm pull box which is inside the south side of Building 9811-1. Additional alarm boxes are located at Building 9720-16, and at the intersection of Second Street and K Road which is southwest of OD-7. These boxes are connected to the existing plant Gamewell Fire Alarm System and the Plant Monitoring System. Two fire hydrants are located near this unit. One is approximately 20 feet north of the RCRA Storage Unit, and the second hydrant is located approximately 75 feet southwest. Telephones and two-way radios are used by personnel to provide communication with the PED office, if emergency assistance is needed. A telephone is also located in the OD-7 operator trailer for communication with emergency personnel. A safety shower/eyewash assembly is planned for installation at a future date at the drum loading/unloading area and the transfer station as part of an OD-7 upgrade project.

This unit is designated as the primary storage unit for nonignitable- and nonreactive-uranium-contaminated waste oils and solvents. Contaminated oils, nonchlorinated solvents, and some toxicity characteristic wastes, may also be accepted at the unit. The storage tank area of the unit consists of a 51- x 58-foot, concrete, diked area. Positioned within the diked area are four, 30,000-gallon tanks and one, 10,000-gallon tank. Two additional 10,000-gallon tanks will be installed at a future date.

Building 9811-1 - RCRA Container Storage Unit (OD-8)

Building 9811-1 is located at the intersection of West Second Street and K Road. A Gamewell box is located on the south side of the building (inside) and connected to the existing plant Gamewell Fire Alarm System and the Plant Monitoring System. A safety shower/eyewash is located at the north side of the building.

This unit is used primarily as a storage area for containerized liquid waste until the waste has been characterized to allow transfer to other treatment, storage, or disposal units. Contaminated liquids with a concentration of greater than 50 ppm PCBs will not be stored at this unit.

Waste Oil/Solvent Storage Unit (OD-9)

The Waste Oil/Solvent Storage Unit is located on Old Bear Creek Road, and served by an

auxiliary fire alarm pull box. The Gamewell box is connected to the existing plant Gamewell Fire Alarm System and the Plant Monitoring System. Two fire hydrants are available for use and are freeze-proof. One hydrant is located along the site access road approximately 60 feet east of the truck entrance to the building. The second hydrant is on the north side of Old Bear Creek Road, near the site egress road, approximately 100 feet southwest of the facility truck exit area. Telephones and two-way radios are used by personnel to provide communication with the PED office, if emergency assistance is needed. Two safety shower/eyewash assemblies, both of which are freeze-proof, are located at the northeast corner of the tank area (in the truck loading pad adjacent to the drum storage area) and on the floor of the containment structure. Potable water is supplied to both units and is identified by green lights installed above each unit. The eye/face units are push bar operated with stay-open valves.

This unit typically receives and stores nonignitable and nonreactive waste oil/solvents that may contain water, be contaminated with PCBs greater than 50 ppm and uranium, and contain chlorinated organic solvents. The liquid wastes are stored here in tanks and drums until sufficient volume is accumulated for transportation to an outside facility for recovery or disposal.

Liquid Organic Solvent Storage Unit (OD-10)

The Liquid Organic Solvent Storage Unit is located in the Bear Creek Burial Grounds, and served by an auxiliary fire alarm pull box which is located approximately 40 feet south of the unit. An additional Gamewell box is accessible at the intersection of Bear Creek Road and the access road to OD-10. This Gamewell box is connected to the existing plant Gamewell Fire Alarm System and Plant Monitoring System. A freeze-proof fire hydrant is located approximately 200 feet south of the unit. Two-way radios provide communication between the unit and the PED office, if emergency assistance is necessary. Three safety shower/eyewash assemblies are provided at OD-10, which includes two located in the staging area (north and south side) and the third located in the tank area. Potable water is supplied to these assemblies, which are push bar operated with stay-open valves. Each unit is identified by a green light installed above each assembly.

This unit receives and stores liquid organic wastes generated in the Y-12 Plant. These wastes typically include waste oil and combustible and flammable waste liquids that may contain trace quantities of uranium. The liquids received at this unit are pumped into the tanks for storage until sufficient quantity is accumulated for final disposal or recovery.

Building 9409-5 Storage Unit

The Building 9409-5 Storage Unit is located on Third Street. The nearest Gamewell box is located in Building 9409-2. This Gamewell box is connected to the existing plant Gamewell Fire Alarm System and Plant Monitoring System. No phone is available, and this unit is no longer in

service. Two-way radios are used to communicate with the PED office, if emergency assistance is needed.

This unit no longer receives hazardous waste. It is currently undergoing closure.

East Chestnut Ridge Waste Pile

The East Chestnut Ridge Waste Pile is located on South Patrol Road. Two-way radios are used to communicate with the PED office, if emergency assistance is required. The nearest Gamewell box is located southwest of the unit across the street from the Containerized Waste Storage Area. This Gamewell box is connected to the existing plant Gamewell Fire Alarm System and Plant Monitoring System.

This waste pile is used for the storage of soils and spoils contaminated with hazardous and low-level radioactive materials, asbestos, and roofing materials from the closure of RCRA sites at the Y-12 Plant. Additional contaminated soils may be moved to the East Chestnut Ridge Waste Pile if excavation activities continue at the Y-12 Plant. The unit is currently inactive.

Containerized Waste Storage Area (CWSA)

The CWSA is located on South Patrol Road. A Gamewell box is located south, directly across the street from the CWSA, and is connected to the existing plant Gamewell Fire Alarm System and the Plant Monitoring System. Two-way radios are also used to provide communication with the PED office, if emergency assistance is needed. A portable safety shower/eyewash is provided during operations.

The CWSA consists of three concrete pads measuring 170 feet long and 50 feet wide. The central and eastern concrete pads are covered by open-sided dome tents and store low-level, radioactive-contaminated, RCRA hazardous waste and/or mixtures of these wastes. The western concrete pad is not covered, and no wastes are stored there. Each pad has a one-foot impermeable dike surrounding it to contain spills. The pads and dikes are sloped toward a 60-gallon sump located on the southeast corner of the pads to catch spilled material and manage rainwater.

Classified Container Storage Unit, Building 9720-25

Building 9720-25 is located on M Street. Two Gamewell boxes are located inside the building and connected to the existing plant Gamewell Fire Alarm System and the Plant Monitoring System. Telephones and two-way radios are also used by personnel to provide communication with the PED office, if emergency assistance is needed.

Building 9720-25 is a storage unit designed for storage of classified wastes generated at the

Y-12 Plant. The wastes include materials, fabricated parts, and containers which have been security classified to prevent dissemination of potentially vital information. Storage in one part of this unit of classified waste, contaminated with hazardous constituents, is necessary due to present uncertainties as to final modes of treatment and/or disposal of classified and/or hazardous waste materials. The stored materials include RCRA hazardous, low-level radioactive, and mixed wastes.

Oil Landfarm Soils Containment Pad

The Oil Landfarm Soils Containment Pad is located west of the main plant area on Bear Creek Road. A telephone is available nearby in the sampling trailer, or two-way radios are used to communicate with the PED office, if emergency assistance is needed. The nearest eyewash/safety shower station is located at the Liquid Organic Solvent Storage Unit, which lies west of this location on Bear Creek Road.

This unit provides storage for contaminated soils and excavation wastes that were generated during RCRA closure of the Oil Landfarm and Oil Retention Ponds at the Y-12 Plant. These soils were contaminated with hazardous, mixed, or radioactive wastes. Contaminants include organics, heavy metals, pesticides, PCBs, and low levels of depleted uranium. The unit provides interim storage for excavation wastes pending scheduling of the soils for final treatment or disposal. This unit is currently inactive.

DARA Solids Storage Unit

The DARA Solids Storage Unit is located west of the main plant area on Bear Creek Road. A Gamewell box is located near the unloading pad adjacent to the DARA Solids Storage Unit at the DARA Liquid Storage and Treatment Unit. This Gamewell box is connected to the existing plant Gamewell Fire Alarm System and Plant Monitoring System. A telephone is available in the operator's trailer south of the DARA Liquid Storage and Treatment Unit, and two-way radios are also used to communicate with the PED office, if emergency assistance is needed. Eyewash/safety shower stations are available on the unloading pad at DARA Liquid Storage and Treatment Unit.

The DARA Solids Storage Unit provides storage for contaminated sediments and excavation wastes generated during closure of the Oil Retention Ponds. These sediments are contaminated with PCBs and volatile organic compounds. They will be stored in the unit until they can be scheduled for final treatment or disposal. This unit is currently inactive.

Interim Reactive Waste Treatment Area (IRWTA)

The IRWTA is located west of the main plant area on Bear Creek Road, and served by an auxiliary fire alarm pull box near the trailers at the closed Sanitary Landfill I. Two-way radios are used to provide communication with the PED office, if emergency assistance is needed. Portable

eyewash systems are used during operation. In addition, the Y-12 Fire Department staff is at the unit during the treatment process to assist, if needed.

This interim unit was designed for the treatment of sodium potassium (NaK) generated during maintenance activities at the Y-12 Plant. The unit currently operates in accordance with an open burning permit. The IRWTA is used approximately once per year dependent upon the generation of NaK wastes. The Fire Department staff are present through the duration of the burn to ensure safe treatment of the NaK, which is water reactive. The Contingency Plan will also be implemented if an emergency arises. The NaK has a mineral oil layer which takes approximately seven hours to burn. The NaK itself will burn away in approximately 45 minutes. All wastes and equipment are removed from the treatment area when the burn is completed.

Building 9201-4, Container Storage Area

Building 9201-4 is located on First Street. Gamewell boxes are located within Building 9201-4 and connected to the existing plant Gamewell Fire Alarm System and the Plant Monitoring System. Two-way radios are used, and a telephone is available on the first floor in the southwest corner of the building for communication with the PED office, if emergency assistance is needed.

This unit is located within the exclusion area of the Y-12 Plant and is used to store mercury-contaminated solids such as soil or insulation in containers. The solids may also be contaminated with uranium. Building 9201-4 provides container storage for 55-gallon drums of hazardous and mixed waste resulting from decontamination and decommissioning activities.

Building 9212 Container Storage Area

The Building 9212 Container Storage Area is located in Building 9212. Telephones are available in nearby supervisors' offices. Eyewash/safety showers are available at each location. Two-way radios are also used to communicate with the PED office, if emergency assistance is needed. Gamewell boxes are located throughout Building 9212. These Gamewell boxes are connected to the existing plant Gamewell Fire Alarm System and Plant Monitoring System.

This area processes organic solutions for recovery of enriched uranium. Process operations within the building generate solid waste contaminated with uranium. The solid waste is burned and the resulting ash stored in galvanized tin cans. The cans are stored on stainless steel racks with criticality spacing.

Building 9206 Container Storage Area

The Building 9206 Container Storage Area is located in Buildings 9206 and 9720-17. For areas located in Building 9206, Gamewell boxes are located near Rooms 24 and 30. Eyewash and safety shower stations are also located in these rooms. For the area located in Building 9720-17, a

Gamewell box and a telephone are located in the corridor outside the area. A telephone is available in Room 18 of Building 9206. Two-way radios are also available in these buildings for communication with the PED office, if emergency assistance is needed. Gamewell boxes are connected to the existing plant Gamewell Fire Alarm System and Plant Monitoring System.

Building 9206 is the other building at the Y-12 Plant where organic solutions containing enriched uranium for recovery of the uranium are processed. During the recovery process, solid wastes such as gloves, shoe scuffs, lab coats, etc., are generated that are contaminated with uranium. These wastes are burned, and the resulting ash stored for future recovery of the uranium contained in the ash. The ash is stored in galvanized tin cans, and the cans are stored on stainless steel racks with criticality spacing. Criticality spacing requires the cans to be stored approximately two feet apart.

Uranium Treatment Unit

The Uranium Treatment Unit is located near Building 9767-2. Eyewash/safety shower stations are available at this unit, and the nearest Gamewell box is located 75 feet north of the area on the East Dock between Doors 4 and 5. This Gamewell box is connected to the existing plant Gamewell Fire Alarm System and Plant Monitoring System. Two-way radios are used and a phone is available nearby in Building 9767-2 to communicate with the PED office, if emergency assistance is needed.

The Uranium Treatment Unit is located on the east side of Building 9206, outside and adjacent to the loading dock. The unit consists of two, 300-gallon polytanks located within a diked drum storage area that stores up to eighteen, 55-gallon drums. This unit treats organic solutions containing uranium.

RCRA and PCB Container Storage Area, Building 9720-58

Building 9720-58 is located on Old Bear Creek Road. Two Gamewell boxes are provided at the east and west sides of Building 9720-58 and connected to the existing plant Gamewell Fire Alarm System and the Plant Monitoring System. Telephones and two-way radios are also used by personnel to provide communication with the PED office, if emergency assistance is needed. A portable eyewash system is provided in the operation trailer adjacent to the unit. A safety shower/eyewash system is also provided at Unit OD-9 that is located directly west of Building 9720-58.

Building 9720-58 is utilized as a storage and staging area for PCB-contaminated equipment (e.g., transformer, capacitors, and electrical switch gear). The area is also used to store RCRA hazardous waste and used as a staging area for other waste materials awaiting off-site shipment. Waste is consolidated at this area until waste analysis and appropriate disposal arrangements can

be initiated.

Building 9720-12 Classified Container Storage Area

The Building 9720-12 Classified Container Storage Area is located on West Second Street. The nearest Gamewell box is located in the northwest corner of Building 9720-12. This Gamewell box is connected to the existing plant Gamewell Fire Alarm System and Plant Monitoring System. Portable eyewash and safety shower stations are used. Two-way radios are used to communicate with the PED office if emergency assistance is needed.

Building 9720-12 is a storage unit for hazardous and nonhazardous waste and a long-term storage unit for uranium-contaminated, solid combustibles generated from Building 9215 process operations. Waste is stored in 55-gallon drums at this building until waste analysis and appropriate recycling techniques can be arranged.

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