

# Annual Radioactive Waste Tank Inspection Program - 1996<sup>(U)</sup>

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## Annual Radioactive Waste Tank Inspection Program - 1996<sup>(U)</sup>

F. G. McNatt, Sr.



SAVANNAH RIVER SITE

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## Acronyms and Abbreviations

A	Annulus
ASME	American Society of Mechanical Engineers
CCTV	Closed Circuit Television
CCWS	Chromate Cooling Water System
CTS	Concentrate Transfer System
DB	Diversion Box
DOE-SR	Department of Energy-Savannah River
DP	Direct Photography
ERIP	Encasement Riser Inspection Port
ETF	Effluent Treatment Facility
EVAP	Evaporator
F	Fahrenheit
GDL	Gravity Drain Line
HELIUM	Helium leak test
HLWE	High Level Waste Engineering
HPFP	High Point Flush Pit
I	Interior
IAL	Intra-Area Line
ITPFC	In-Tank-Precipitation Filter Cell
LDB	Leak Detection Box
LPPP	Low Point Pump Pit
MLDB	Modified Leak Detection Box
OD	Outside Diameter
PHOTO	Photographs by Non-Remote Technique
PP	Pump Pit
psig	pounds per square inch gage
PSP	Periscopic Photography
PT	Pump Tank
RCP	Reinforced Concrete Pipe
SRS	Savannah River Site
SSD	Storm Sewer Drain
SSMH	Storm Sewer Manhole
STE	Shift Technical Engineer
SWS	Storm Water Sewer
UT	Ultrasonic Test
VP	Video Photograph
WAP	Wide-Angle Photography
WLE	Waste Line Encasement
WME	Waste Management Engineering
WSRC	Westinghouse Savannah River Company
WT	Waste Transfer Line

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## **Introduction**

Aqueous radioactive wastes from Savannah River Site (SRS) separations processes are contained in large underground carbon steel tanks. Inspections made during 1996 to evaluate these vessels, and evaluations based on data accrued by inspections performed since the tanks were constructed, are the subject of this report.

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## **Summary**

The 1996 inspection program revealed an artifact on the wall of Tank 15 that suggests a crack had recently developed above the waste level in the tank. The condition of all other tanks was virtually unchanged from 1995; no evidence of structural degradation or loss of waste confinement was observed.

A total of 4359 photographs were made, 300 visual and video inspections were performed, 26 helium leak tests were conducted, and ultrasonic wall thickness mapping was performed at a total of sixteen locations in four waste tanks.

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# Inspection Program

## Background

Alkaline aqueous radioactive wastes produced at the Savannah River Site are received and managed in large underground tanks. The waste comes primarily from nuclear fuel reprocessing operations in the separations areas (F and H) and contains most of the radioactive fission products from SRS operations. The waste stored in the tanks is present in three phases: sludge, supernate, and salt formed by supernate evaporation and cooling. The supernate and salt phases consist primarily of  $\text{NaNO}_3$  and  $\text{NaNO}_2$ . The fission product content is 5 to 20 curies per gallon for the supernate and 10 to 60 curies per gallon for the salt. The sludge consists primarily of  $\text{MnO}_2$  and  $\text{Fe(OH)}_2$  with a fission product content up to 500 curies per gallon.

Waste tank leak detection capabilities are essential to meet the primary objective of the SRS radioactive waste management program: to manage the waste in such a manner as to minimize the radiation exposure and associated risk to man and his environment over the lifetime of the radionuclides.

The detection of leaked waste is based on two principles: disappearance of material from its proper location and appearance of material in an improper location. At SRS, primary reliance is on the latter because the quantity of the waste detectable in an improper location is much less than that detectable by inventory change in a large tank. Capacity of SRS tanks is 0.75 to 1.3 million gallons. Although rigorous tank inventory surveillance is practiced, primary leak detection methods rely on automatic surveillance of those areas into which the leaked waste is most likely to migrate.

The annulus of each double-wall tank is equipped with at least two single-point conductivity probes for leak detection. These probes are located at the bottom of the annulus and on opposite sides of the tank. The single-wall tanks are built on slabs with a network of leak collection channels which drain to a common sump. Continuous sump level monitoring and frequent sump liquid sampling provide the leak detection. Besides the automatic surveillance, routine direct visual surveys are made in the annular spaces and nonroutine direct visual surveys are made in primary tanks through opened access risers and/or inspection ports in the roof.

In 1961-62, following leakage of waste into the annuli of Tanks 9, 10, 14, and 16, the first remote imaging inspections were made of some tanks using a periscope. Random inspections continued through 1970. A program was initiated in November 1971 to periodically inspect all waste tanks, using remote visual imagery techniques to monitor for corrosion and other degradation, waste leakage, anomalies of any type, and to investigate process or equipment concerns.

Steel thickness measurements have been made periodically of waste tanks, using ultrasonic techniques to monitor for general corrosion. An analog-type instrument was used in 1967 and 1969 to measure the thickness of the primary wall of selected double-wall tanks. In 1972, a more precise instrument was put in service. About 24,000 measurements made over a period of 14 years (1972 through 1985) indicated that no thinning of SRS tanks has occurred. The only tank at SRS that has experienced detectable corrosion is Tank 23, a tank with a unique service history. The upper wall interior surfaces show general corrosion with mild pitting. The pitting is broad but shallow. This tank was used to receive contaminated water from 244-H, the Receiving Basin for Off-Site Fuels, and 245-H, the Resin Regeneration Facility. Steel thickness measurements were resumed in 1994 using an updated ultrasonic testing (UT) system.

Inspections are complicated by factors such as radiation and radioactive contamination, remote operation as far as 40 feet below grade, and insertion of equipment through small (generally 5 to 8-inch-diameter) access openings. Inspection techniques to circumvent these difficulties have been developed; they yield quality visual images and thickness measurements. The techniques include perisopic systems, direct photographic systems, closed circuit television systems, and ultrasonic systems to measure steel thicknesses.

Waste tank inspection has been important in leak detection. The leaksites in nine of the eleven cracked tanks have been identified by direct visual inspection or by one of the remote inspection techniques. Since the inspection program was initiated in 1971, six tanks were found to have leaksites that were not recognized before the program was implemented. In the double-wall tanks, annulus conductivity probes were not activated by these leaks because of the small amount of leakage. The leaked waste evaporated to dryness sealing the cracks before any leaked waste

reached a leak detection probe. However, remote inspections detected the dry deposits of leaked waste in the annuli of these tanks.

The waste tank in-service inspection program is comprised of visual imagery inspection and ultrasonic steel thickness measurement. This report gives results of the 1996 inspection program and summarizes significant findings of previous in-service inspections for each waste tank.

## Tank Description

SRS has subsurface storage tanks of four different designs. All of the tanks are constructed of carbon steel and reinforced concrete. They serve as containment vessels for storage and processing of radioactive wastes. Appendix A lists tank location, design type, project number, and construction period. A brief description of the different tank designs is given in the following paragraphs.

### Type I Tanks

The 12 original storage tanks constructed between 1951 and 1953 are designated Type I tanks. Tanks 1 through 8 are in F Area and Tanks 9 through 12 are in H Area. Each primary tank has a capacity of 750,000 gallons, is 75 feet in diameter and 24 1/2 feet high. Figure 1 shows the essential features of Type I tanks, including the primary tank, the secondary pan, and the concrete support structure.

The primary container is a closed cylindrical tank with flat top and bottom constructed from 1/2-inch-thick steel plates. The top and bottom are joined to the cylindrical sidewall by curved knuckle plates. The primary tank is set within a circular pan of 1/2-inch-thick steel plates. The annulus pan is 5 feet deep and 5 feet larger in diameter than the primary tank, thus forming an annular space 2 1/2 feet wide. The tank and pan are set on a 30-inch-thick base slab and are enclosed by a cylindrical 22-inch-thick reinforced concrete wall and a flat concrete roof, also 22 inches thick. There are twelve 2-foot-diameter concrete columns within the primary tank to support the roof. Each column has a flared capital and is encased in 1/2-inch-thick steel plate.

A 9-foot layer of earth was placed over the tanks for radiation shielding. Cooling for each Type I tank is provided by 36 parallel (water pipe) cooling coils.

A dehumidification duct in the annulus of each tank is routed from the tank top to the bottom of the annulus where it encircles the tank. The duct has distribution outlets and its cross-sectional area decreases as the distance from the air supply increases. Access to the tank interior is provided at eight locations, and to the annular space at four locations, through riser pipes. Each of the 12 riser pipes is capped at the top with a concrete plug. Each plug is provided with two 5-inch-diameter ports equipped with removable plugs. Some of these ports provide access for inspections.

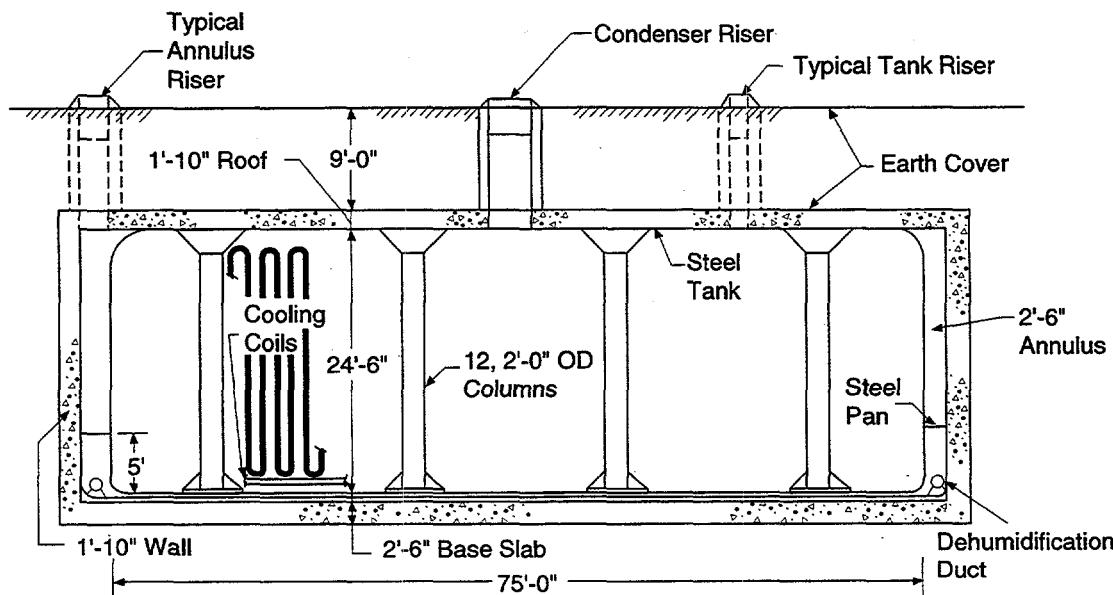


Figure 1. Cooled Waste Storage Tank, Type I (Original 750,000 Gallons).

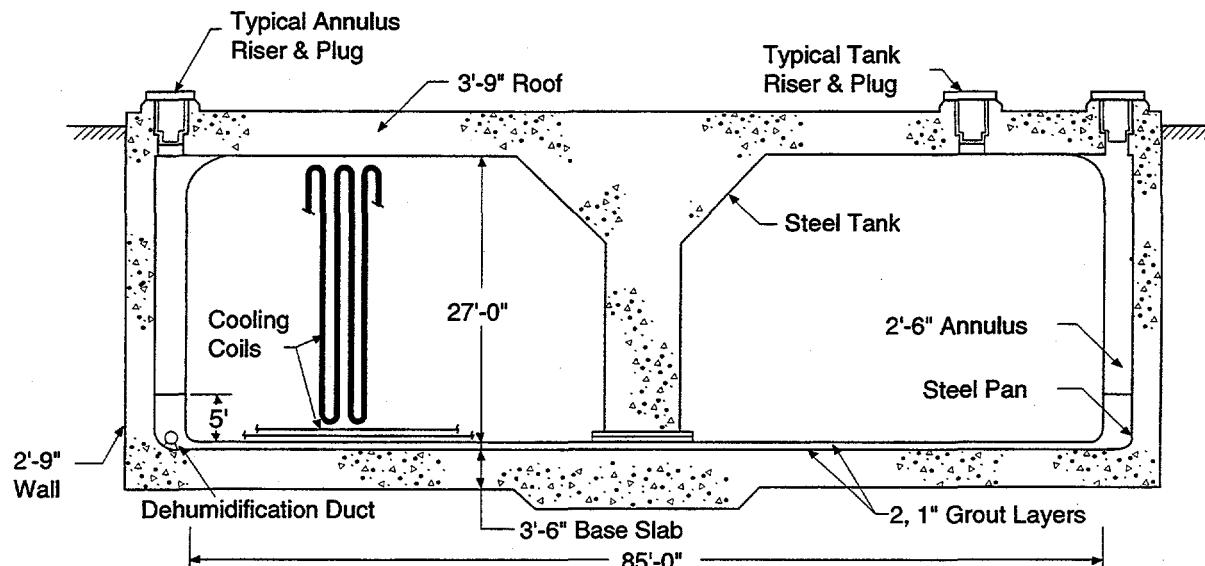


Figure 2. Cooled Waste Storage Tank, Type II (Original 1,030,000 Gallons).

All welds in the pan and primary tank were radiographically inspected, defects were corrected, and the welds were rechecked radiographically. The welds in the flat bottoms of both the pan and the tank were vacuum-tested for leaks. Additionally, both vessels were hydrostatically tested. The water was maintained at full height in the tank for 24 hours before inspection for leaks was made. Cooling water piping was hydrostatically tested at 300 psig and then leak-tested with 100 psig air pressure in the piping.

### Type II Tanks

Tanks 13 through 16, constructed in H Area in 1955 and 1956, are designated Type II tanks. Figure 2 is a cross section of this type. Each primary tank has a capacity of 1,030,000 gallons and is 85 feet in diameter and 27 feet high.

The primary container for Type II tanks consists of two concentric steel cylinders assembled with a flat bottom and a flat top into a form somewhat like a doughnut. The top and bottom are joined to the outer cylinder by rings of curved knuckle plates. The inner cylinder is flared at the top to accommodate the roof support column. This cylinder is joined to the flat steel top with a continuous butt weld and to a base fastened to the bottom with a continuous T-weld. Steel thicknesses are:

Plate	Thickness, inch
Top and bottom	1/2
Upper knuckle	9/16
Wall	5/8
Lower knuckle	7/8

The primary tank is set on a 1-inch sand bed within a circular pan of 1/2-inch thick steel plate, 5 feet deep and 5 feet larger in diameter than the primary tank, thus forming an annular space 2 1/2 feet wide. The tank and pan assembly is surrounded by a cylindrical reinforced concrete enclosure with a 33-inch-thick wall and a flat concrete roof that is 45 inches thick. The tank and pan assembly and the surrounding wall are set on a foundation slab that is 42 inches thick. The roof is supported by both the wall and a central concrete column that fits within the inner cylinder of the vessel. The 45-inch-thick concrete roof provides radiation shielding; therefore, no earth overburden is required. Cooling for each Type II tank is provided by 44 parallel (water pipe) cooling coils. Access to the tank interior is provided at eight locations, and to the annular space at four locations, through riser pipes. Each of the 12 riser pipes is capped at the top with a concrete plug. Each plug is provided with two 5-inch-diameter ports equipped with removable plugs. The ports provide access for inspection. In addition to the four annulus risers, other access openings (10 to 14 additional openings per tank) have been drilled into the annulus of each of these tanks to permit inspection of seventy-three to ninety-six percent of the exterior walls of the primary vessels.

A dehumidification duct in the annulus of each tank is routed from the tank top to the bottom of the annulus where it encircles the tank. The duct has distribution outlets and its cross-sectional area decreases as the distance from the air supply increases.

All welds in the primary tanks were radiographically inspected, defects were corrected, and the welds were rechecked radiographically. However, the annulus pans were not inspected radiographically. The welds in the flat bottoms of these pans and the primary tanks were vacuum-tested for leaks, and the primary and secondary vessels were hydrostatically tested. Cooling water piping was hydrostatically tested at 300 psig and then leak-tested, with 100 psig air pressure in the piping.

### Type IV Tanks

Tanks 17 through 24 are single-wall uncooled tanks. These tanks were designed for storage of waste that does not require auxiliary cooling. Tanks 17 through 20 were constructed in F Area in 1958 and Tanks 21 through 24 were constructed in H Area between 1959 and 1961. Each tank has a capacity of 1,300,000 gallons and is 85 feet in diameter and 34 feet high (Figure 3).

Each Type IV tank is basically a steel-lined, prestressed-concrete tank in the form of a vertical cylinder with a domed roof. Carbon steel plates, 3/8 inch thick, were used to form the cylindrical sides and flat bottom portion of the

steel liners. The knuckle plates at the junction of the bottom and the sidewall are 7/16 inch thick. Concrete was built up around the steel vessel by the "shotcrete" technique.

Radiation shielding of the Type IV tanks in F Area was accomplished by applying at least 32 inches of earth over each of the 7-inch-thick concrete domes. H Area tanks were shielded similarly, except that the earth cover was at least 44 inches thick to accommodate a somewhat higher radiation level from the waste.

Access to the interior of the tank is provided at six locations through riser pipes. Each riser pipe is capped at the top with a concrete plug. Some of these risers provide access for inspection.

All welds in the steel liners were radiographically inspected. All of the welded tank-bottom seams and the upper seams of the knuckle rings were vacuum leak-tested. Prior to the back-filling operation, each tank was hydrostatically tested by filling with water to the normal fill line. The tank was allowed to remain filled until it was to be placed in use for waste storage.

### Type III Tanks

The most recently constructed tanks are designated as Type III tanks (Figure 4). Twenty-seven tanks were built between 1967 and 1981. Tanks 25 through 28, 33 and 34,

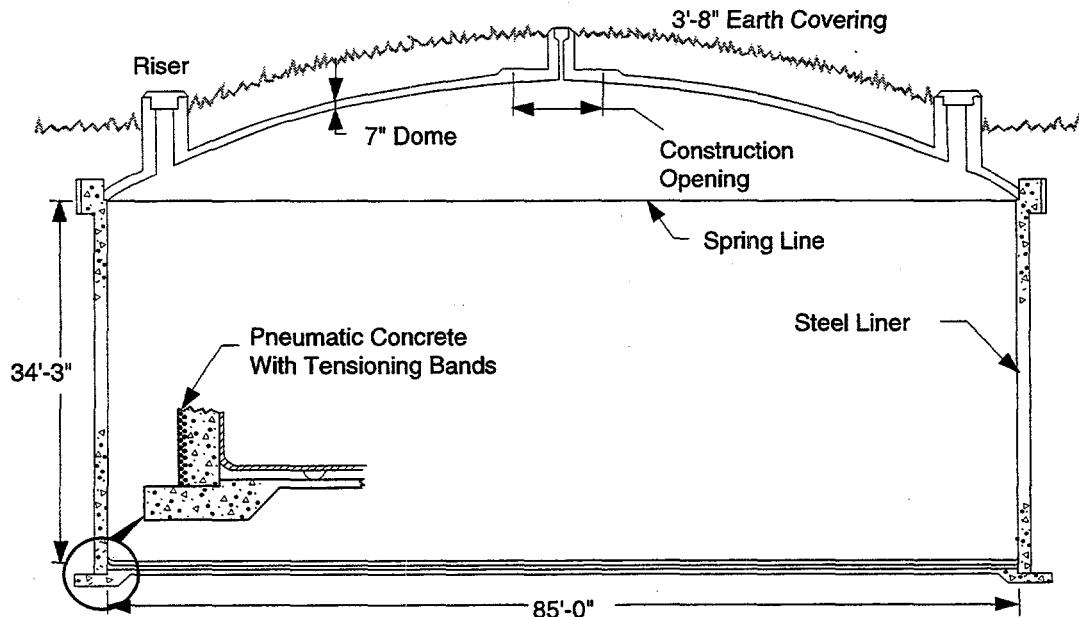


Figure 3. Uncooled Waste Storage Tank, Type IV (Prestressed Concrete Walls, 1,300,000 Gallons).

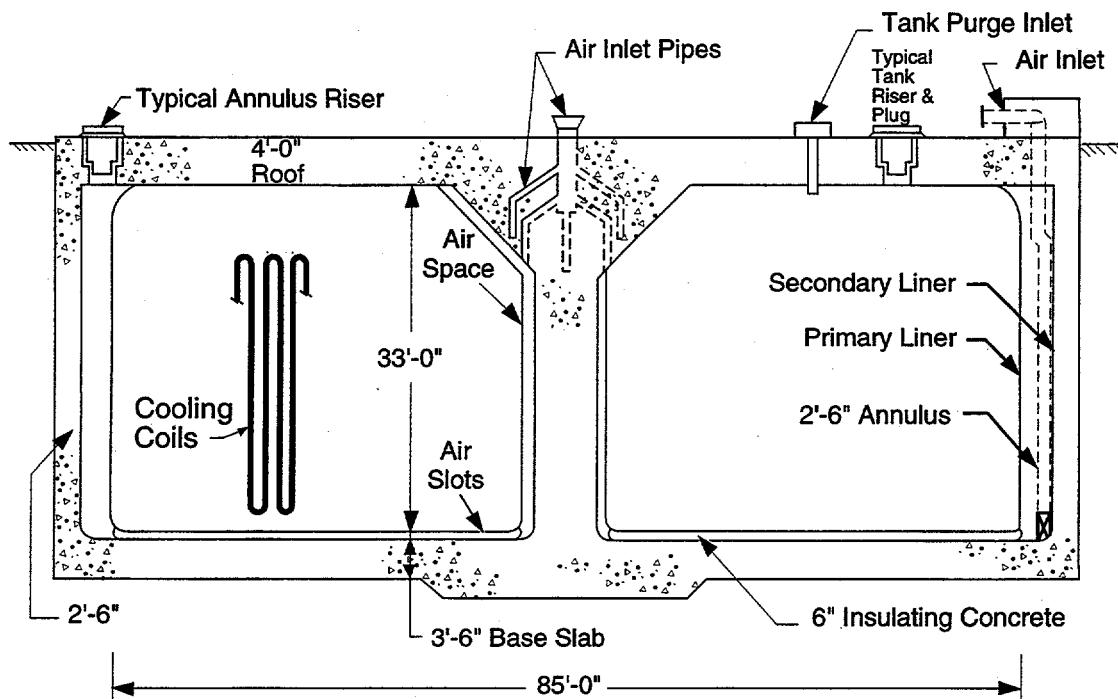


Figure 4. Cooled Waste Storage Tank, Type III (Stress Relieved Primary Liner, 1,300,000 Gallons).

and 44 through 47 are located in F Area. Tanks 29 through 32, 35 through 43 and 48 through 51 are located in H Area.

The Type III tank design was developed after an investigation into the causes of the leaks from the primary vessel of the Type I and Type II tanks. The study concluded that the leak-producing mechanism was nitrate-induced stress-corrosion cracking at sites in or near the weld seams, and that stress relieving after fabrication should eliminate the cracking. For the type III tanks, means were provided for heating each finished tank to relieve the stresses generated during fabrication. In addition, some stress patterns were avoided, or minimized, by mounting the roof supporting column on the foundation pad rather than on the bottom of the primary tank (as in Types I and II), and by providing an annular clearance around the roof supporting column. Each primary tank holds 1,300,000 gallons and is 85 feet in diameter and 33 feet high.

Type III tanks are similar to the doughnut-like design of Type II tanks. Each primary vessel is made of two concentric cylinders joined to washer-shaped top and bottom plates by curved knuckle plates. Steel thicknesses are:

Plate	Thickness, inch
Top and bottom	1/2
Upper knuckle	1/2
Outer wall	
Upper band	1/2
Middle band	5/8
Lower band	3/4
Inner wall	
Upper band	1/2
Lower band	5/8
Lower knuckle	
Outer	(tanks 25 - 28 and 33 - 51) 7/8
	(tanks 29 through 32) 1
Inner	5/8

The primary tank is set on a 6-inch bed of insulating concrete within the secondary containment vessel. The concrete bed is grooved radially so that ventilating air can flow from the inner to the outer annulus: If any waste were to leak from the tank bottom or center annulus wall, liquid would move through the grooves, facilitating detection in the outer annulus.

The secondary vessel is 5 feet larger in diameter than the tank, thus providing an outer annulus 2 1/2 feet wide. The secondary vessel is made of 3/8-inch-thick steel throughout. Its sidewalls rise to the full height of the primary tank. The nested two-vessel assembly is surrounded by a

cylindrical reinforced concrete enclosure with a 30-inch-thick wall. The enclosure has a 48-inch-thick flat reinforced concrete roof that is supported by the concrete wall and a central column that fits within the inner cylinder of the vessel. The 48-inch-thick concrete provides radiation shielding; hence, no earth overburden is required.

Cooling for the Type III tanks is provided by either deployable (water pipe) cooling coil bundles installed through risers in the tank top or 23 parallel (water pipe) cooling coils distributed throughout the tank.

A dehumidification duct in the annulus of each tank is routed from the tank top to the bottom of the annulus where it encircles the tank. The duct has distribution outlets and its cross-sectional area decreases as distance from the air supply increases. In these tanks, additional airflow is directed through the inner annulus, passing beneath the primary tank through radial grooves in the concrete base slab and is exhausted into the outer annulus.

Tanks 29 through 34 were placed in service prior to 1976. These tanks were constructed with annulus riser pipes at four locations providing inspection access through 5-inch-diameter ports. All other Type III tanks were placed in service after 1976 and have annulus riser pipes at 18 locations that are 8-inches in diameter. These ports are equidistant around the tank and provide for inspection of all of the exterior wall of the primary vessel. In 1982, fourteen to sixteen additional 8-inch diameter ports per tank were drilled in the tops of Tanks 29 through 34 to provide adequate access ports for inspection of all of the exterior wall of their primary vessels. All Type III tanks have interior riser pipes at various locations that provide inspection access through ports with diameters ranging from 5 to 8 inches. All inspection access ports are equipped with removable plugs.

All butt welds on the primary tanks were radiographically inspected, except welds on the horizontal roof surface. On the secondary vessels of Tanks 29 through 34, all butt welds joining bottom plates, knuckle plates, and the lowest courses of center-column and outer-wall plates, were radiographically inspected. On all other Type III tanks, all plate welds in the secondary tanks were radiographically inspected. All defects were corrected and the welds were rechecked radiographically.

The Quality Assurance Program included inspection of all radiographs by two independent groups of certified weld inspectors and all radiographs were permanently stored for future reference. All spots on the inside or outside of the primary tanks and the inside of the secondary tanks, where clips or lugs were removed and where other excisions

were made, were examined by magnetic particle or liquid penetrant techniques, and any defects were repaired.

All butt welds on the secondary tanks were vacuum leak-tested. All welds in the bottom assemblies of the primary tanks, including knuckle rings and lowest course welds, were vacuum leak-tested before each bottom assembly was lowered into final position, and then tested a second time after the stress-relieving operation. A full hydrostatic test, the filling of each primary tank to a depth of 32 feet and allowing it to stand 48 hours, was conducted after stress relieving. No leaks were found by the hydrostatic tests. All circumferential welds in the pipe loops of the deployable cooling coil bundles below the 1/2-inch-thick plate at the base of the riser plug were radiographed. The assembled cooler piping was tested hydrostatically to 500 psig and halide leak-tested at 300 psig. Welds in the distributed cooling coils were radiographed and similarly leak-tested.

The primary tank was stress-relieved in place after all high temperature work (other than roof attachments) had been completed. Full stress relief, at 1100°F, was accomplished in accordance with the general requirements of the ASME Boiler and Pressure Vessel code.

## Inspection Methods

Techniques have been developed for remote examination and evaluation of the waste tanks and waste tank ancillaries. For visual imaging, direct photography systems developed at SRS were the primary method used. Optical periscopes, boroscopes, and closed circuit television systems were also used where direct photography was not possible or where these systems provided a more comprehensive examination. Only the direct photography systems will be described since the other systems were used less frequently and are similar to systems used widely in the nuclear industry. Tank wall thickness measurements were made using a crawler developed at SRS that was interfaced with the P-scan Ultrasonic Inspection System.

Wide-angle direct photography was used for general inspections of double-wall tank annuli and the primary vessels of both double-wall tanks and single-wall tanks. This technique used a camera that surveys a large area in a single photograph. At the beginning of the year a 35mm Zeiss-Ikon Hologon Ultra-wide camera was used. This camera has a lens with a 15mm f/8 fixed aperture and fixed focus. The lens is distortion free with a 100-degree field of view. During 1996 the camera used for wide-angle photography was changed. A Contax G1 camera body, with a Zeiss Hologon 16mm f/8 fixed aperture lens, was put in service. This lens is distortion free with a field of

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view of approximately 100-degrees. A bank of four electronic flash units were synchronized with these cameras to provide illumination. These cameras are not shielded since residence time in a tank is minimal.

Another direct photography technique was used for detailed inspections. The camera is shielded to reduce the degrading effect of ionizing radiation on the photographic film. The camera's residence time in a waste tank for this technique is longer than the wide-angle direct photographic technique (i.e., a few minutes versus a few seconds); hence, shielding is required. The camera used at the beginning of 1996 was the 35mm Leitz's Leica CL. It is a rangefinder camera with interchangeable lenses. Normally, a 21mm lens was used. Alternate lenses are available with focal lengths of 28mm and 35mm. During 1996 the Leitz's Leica CL camera was replaced with the Contax G1 camera with a Zeiss Hologon 16mm f/8 lens, the same as used for the wide-angle direct photography. Illumination is provided by a single electronic flash unit.

Thickness measurements were made with the P-scan Ultrasonic Inspection System. The System was interfaced with a SRS developed tank-wall crawler to perform examination of the Type III waste tanks. The crawler design permits access to tank walls via openings as small as eight inches in diameter. P-scan is a highly developed ultrasonic technique for corrosion mapping and weld inspection. Acquired data are stored on disks for evaluation. The system provides documentation of 100% of the measured area and color imaging of inspection results. Adjustable color levels can be used to display percentage of area examined within specific thickness ranges. The system calculates the minimum, maximum, and mean values for each scan.

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# Program Implementation

## Visual Imagery

The 1996 inspection program used three visual imagery techniques: photography, closed circuit television, and periscopic inspection. The primary inspection methods were direct photography techniques, e.g., making a series of photographs providing detailed views of the tank and wide-angle photography for obtaining overviews of large areas. Closed circuit television systems and periscopes were generally used to further investigate conditions found during scheduled inspections and to troubleshoot process problems in tanks and ancillaries.

The inspection program objective to continuously evaluate the waste tanks was satisfied in 1996 by photographic documentation. Inspections were made through all accessible annulus risers of the double-wall tanks and at least one inspection was made in the interior of each single-wall tank.

For Tanks 1 through 12, inspections are limited to no more than 25% of the exterior of the primary vessel wall and the annular space due to limited annulus access. This is considered adequate since the tanks are inactive, i.e., waste is not routinely transferred to or from them. These tanks are continuously monitored for leakage by instrumentation installed in their annuli. Additionally, for those tanks that have known leaksites in the primary vessel, the supernate phase has been removed, minimized, or the level lowered below the level of known leaksites.

## Ultrasonic Testing

The P-scan Ultrasonic Testing System with a remotely controlled crawler was used to perform thickness mapping on vertical strips of the wall of four tanks.

## 1996 Inspection Results

The 1996 inspection program was successfully completed. The annuli of all double-wall tanks and the interiors of single-wall tanks were inspected at accessible risers by at least one photographic technique. Other inspections were made as required by operating conditions and equipment performance. Details and results for inspections of waste tanks and waste tank ancillaries performed in 1996 are listed in Appendix B.

An inspection in Tank 15 on June 14 beneath riser 207 revealed an artifact on the exterior of the primary vessel wall that implied a crack-like flaw had developed a few inches below the middle girth weld. This artifact was not present when an inspection was performed April 23, 1992. The artifact appeared to be salt crystals formed by dry waste. The crystals formed thin irregular lines giving the appearance of having seeped through hairline cracks. The waste content of the tank has been below the level of the observed deposit for several years. Ultrasonic examination is planned to characterize the steel wall where this observation was made.

The condition of all other waste tanks was virtually unchanged from the condition observed in 1995. No new leaksites were found and no evidence was found that existing leaksites had leaked since inspected in 1995. No significant general corrosion of the waste tanks was evidenced by the lack of change on their steel surfaces.

Rainwater continued to leak into the annuli of most tanks. Water inleakage was evidenced mostly by surface stains; occasionally by calcite deposit; and occasionally by changed configuration of leaked waste in the annulus (see Appendix B). The leakage was primarily due to poor seals at riser gaskets and failed seals where process pipes penetrate tank annuli below grade.

Ultrasonic thickness measurements were performed on Tanks 40, 42, and 51 to obtain P-scan baseline data. Measurements were repeated on Tank 48, which was baselined in 1994 and 1995. The data did not reveal any service induced corrosion.

## Summary of Inspection Results

The following is a brief description of tank conditions as revealed by inspections and examinations made through 1996.

### Tank 1

Tank 1 was placed in service in 1954. A small amount of dry waste was observed on the annulus floor in 1969. Subsequent inspections have revealed no additional leakage. Inspection of the exterior wall of the primary vessel is limited to 25% using existing inspection techniques through the four risers that provide access to the annulus. Examination of the observable portion of the tank wall has not

revealed the location of the leak(s). Inspection photographs of the steel surface of the tank and the annulus have shown no significant surface corrosion or other anomalies. Ultrasonic measurements made in 1978, 1979, 1981, 1983, and 1985 showed that no detectable thinning of the tank wall had occurred.

### Tank 2

Tank 2 was placed in service in 1955. Examinations of the observable portion (25%) of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic measurements made in 1967, 1972, 1973, 1977, 1981, and 1985 showed no detectable thinning of the tank wall.

### Tank 3

Tank 3 was placed in service in 1956. Examinations of the observable portion (25%) of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic measurements made in 1973, 1977, 1981, and 1985 showed no detectable thinning of the tank wall.

### Tank 4

Tank 4 was placed in service in 1961. Examinations of the observable portion (25%) of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic measurements made in 1973, 1977, 1981, and 1985 showed no detectable thinning of the tank wall.

### Tank 5

Tank 5 was placed in service in 1959. Examinations of the observable portion (25%) of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic measurements made in 1973, 1977, 1981, and 1985 showed no detectable thinning of the tank wall.

### Tank 6

Tank 6 was placed in service in 1964. Examinations of the observable portion (25%) of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic measurements made in 1974, 1977, 1978, 1979, 1981, and 1985 showed no detectable thinning of the tank wall.

### Tank 7

Tank 7 was placed in service in 1954. Examinations of the observable portion (25%) of the exterior of the primary

vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic measurements made in 1974, 1979, 1981, 1983, and 1985 showed no detectable thinning of the tank wall.

### Tank 8

Tank 8 was placed in service in 1956. Examinations of the observable portion (25%) of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic measurements made in 1973, 1977, 1981, and 1985 showed no detectable thinning of the tank wall.

### Tank 9

Tank 9 was placed in service in 1955. Leakage from the tank primary vessel into the annulus pan may have occurred as early as 1955 when the "necklace" alarm, a conductivity leak detection device, shorted out permanently. Leakage was not certain until liquid waste was observed in the annulus pan in 1957. Currently, the annulus pan contains 8 to 10 inches of dry leaked waste. Examinations of the observable portion (25%) of the exterior of the primary vessel wall have shown three leaksites high on the tank wall; 269, 271 and 276 inches above the tank bottom. None of these leaksites is the source of the leaked waste in the annulus pan. The waste leaked at these sites was only enough to form localized small nodules. The leak(s) that are the source of the waste in the annulus pan have not been observed. Inspections have shown no significant surface corrosion, and the ultrasonic measurements made in 1979 and 1983 showed no detectable thinning of the tank wall.

### Tank 10

Tank 10 was placed in service in 1955. The first indication that Tank 10 had leaked was in 1959 when dry waste was discovered in the annulus pan during a visual inspection. Currently, the annulus pan contains about 2 inches of dry leaked waste. Examinations of the observable portion (25%) of the exterior of the primary vessel wall have not shown the source of the leaked waste or any other leaksite(s). Inspections have shown no significant surface corrosion, and the ultrasonic measurements made in 1979 and 1983 showed no detectable thinning of the tank wall.

### Tank 11

Tank 11 was placed in service in 1955. Twenty-five percent of the exterior of the primary vessel wall is observable via the four risers that provide access to the annulus. Inspections performed in 1974 revealed two leaksites. The leaksites are 189 and 235 inches above the tank bot-

tom. Inspections have shown no significant surface corrosion, and ultrasonic measurements made in 1973, 1977, 1981, and 1985 showed no detectable thinning of the tank wall.

### Tank 12

Tank 12 was placed in service in 1956. Twenty-five percent of the exterior of the primary vessel wall is observable via the four risers that provide access to the annulus. Inspections in 1974 revealed two leaksites. The leaksites are 93 and 105 inches above the tank bottom. Inspections have shown no significant surface corrosion, and ultrasonic measurements made in 1972, 1973, 1977, 1981, 1983, and 1985 showed no detectable thinning of the tank wall.

### Tank 13

Tank 13 was placed in service in 1956. Ninety percent of the exterior of the primary vessel wall is observable via the 13 risers that provide access to the annulus. Inspections in 1977 revealed a leaksite 279 inches above the tank bottom. In 1980, another leaksite was discovered 269 inches above the tank bottom. Inspections have shown no significant surface corrosion, and ultrasonic measurements made in 1974, 1979, and 1985 showed no detectable thinning of the tank wall.

### Tank 14

Tank 14 was placed in service in 1957. The first indication that tank 14 had leaked was in 1959 when dry leaked waste was observed in the annulus pan. Currently, the annulus pan contains 12-13 inches of dry leaked waste. Eighty-nine percent of the exterior of the primary vessel wall is observable via the 18 risers that provide access to the annulus. Inspections have located 33 leaksites and it is estimated that there are about 50 leaksites in this tank. All of the observed leaksites are near the bottom circumferential weld that is 2.5 feet above the tank bottom, except one leaksite that was observed approximately 24 feet above the tank bottom. Inspections have shown no significant surface corrosion, and ultrasonic measurements made in 1979 and 1983 showed no detectable thinning of the tank wall.

### Tank 15

Tank 15 was placed in service in 1960. Inspections in 1972 below one of the four risers providing access to the annulus revealed two leaksites near the bottom circumferential weld about 2.5 feet above the tank bottom. Twelve additional risers were installed increasing the observable portion of the primary vessel wall from 25% to 96%.

Inspections in 1973, via the additional risers, revealed eleven other leaksites. No additional leaksites have been found since 1973. However, in 1996 a deposit of salt crystals was observed that suggest a crack-like flaw in the primary vessel wall. Inspections have shown no significant surface corrosion, and ultrasonic measurements made in 1972, 1977, 1980, and 1984 showed no detectable thinning of the tank wall.

### Tank 16

Tank 16 was placed in service in 1959. Liquid waste was detected in the annulus pan in 1959. Seventy-three percent of the exterior wall of the primary vessel is observable via the sixteen risers that provide access to the annulus. Inspections in 1961 and 1962, through 13 risers, revealed about 175 leaksites in the tank wall. In October 1961 and March 1962, two 5 3/4-inch-diameter samples were cut from the top horizontal circumferential weld of the tank wall about 40 feet apart. Metallurgical examination indicated the cause of the cracks was nitrate-induced stress corrosion. Extensive inspection performed since 1972 indicated the primary vessel wall has 300 to 350 leaksites. In 1978, 70% of the leaked waste in the annulus pan was removed, leaving an insoluble heel containing approximately 30,000 curies 137Cs. Waste removal from the interior of the primary vessel was completed in 1980. Inspections have shown no significant surface corrosion. No ultrasonic steel thickness measurements of the tank were made because of the number of leaksites and the presence of leaked-waste deposits on the primary vessel exterior. This tank is presently "out of service."

### Tank 17

Tank 17 was placed in service in 1961. Examinations of the steel liner have shown no evidence of failure, significant surface corrosion, or other anomalies.

### Tank 18

Tank 18 was placed in service in 1959. Examinations of the steel liner have shown no evidence of failure, significant surface corrosion, or other anomalies. Ultrasonic measurements made in 1977, 1980, and 1983 showed no detectable thinning of the liner bottom.

### Tank 19

Tank 19 was placed in service in 1961 and emptied in 1981. The tank has remained empty except for ballast water. Examinations of the steel liner have revealed two failures, i.e., sites where inleakage had occurred. The failures are in the wall of the steel liner at heights of 317 inches and 330 inches. Inspection records photographically

cally document that these leaksites existed before 1994. However, inspections made from the interior of this single-wall (visual inspection of the exterior is not possible) had to track changes in artifacts at the sites by periodic observation to judge that inleakage had occurred. Ultrasonic measurements made in 1982 and 1985 showed no detectable thinning of the liner bottom.

### Tank 20

Tank 20 was placed in service in 1960. Examinations of the steel liner have revealed four failure sites. In 1983, leaksites were observed in the wall of the steel liner at heights of 22, 24.5, and 26.5 feet. In 1990, a leaksite was confirmed in the liner wall at a height of 26.25 feet. This site had been suspect since 1984.

Tank 20 is a single-wall tank with no annulus. The leaksites in the steel liner were detected by inspections made from the tank interior, since inspection of the exterior was not possible. Artifacts observed on the interior wall indicated that water had leaked through the steel liner into the tank. It is possible that a small quantity of waste may have leaked from the steel liner. However, groundwater monitoring has given no indication that waste escaped the encasement.

### Tank 21

Tank 21 was placed in service in 1961. Examinations of the steel liner have shown no evidence of failure, significant surface corrosion, or other anomalies. Ultrasonic measurements made in 1973, 1977, 1980, and 1983 showed no detectable thinning of the liner bottom.

### Tank 22

Tank 22 was placed in service in 1965. Examinations of the steel liner have shown no evidence of failure, significant surface corrosion, or other anomalies. Water was discovered leaking through the concrete roof in 1994. Ultrasonic measurements made in 1974, 1977, 1980, and 1983 showed no detectable thinning of the liner bottom.

### Tank 23

Tank 23 was placed in service in 1964. Examinations of the steel liner have revealed corrosion but no evidence of failure. Ultrasonic measurements made in 1973, 1977, 1980, and 1983 showed no detectable thinning of the liner bottom. Examinations of the steel liner have shown rust and tubercles on the surface of the upper portion. This tank serves as a receiver tank for inhibited contaminated water from buildings 244-H, the Receiving Basin for Off-Site Fuels, and 245-H, the Resin Regeneration Facility.

The tank was filled to less than 50% capacity to maintain the remaining space for emergency use. This mode of operation exposed only the lower half of the tank to the inhibited contents and exposed the upper half of the tank to a warm humid atmosphere. In 1984, rust and tubercles were cleaned from two small areas exposing the steel surface. The cleaned liner surface was generally corroded with mild pitting. The pits were broad and shallow.

### Tank 24

Tank 24 was placed in service in 1963. Examinations of the steel liner have shown no evidence of failure, significant surface corrosion, or other anomalies. Ultrasonic measurements made in 1984 showed no detectable thinning of the liner.

### Tank 25

Tank 25 was placed in service in 1980. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1979 and 1983 showed no detectable thinning of the tank wall.

### Tank 26

Tank 26 was placed in service in 1980. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1979 and 1983 showed no detectable thinning of the tank wall.

### Tank 27

Tank 27 was placed in service in 1980. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1979 and 1983 showed no detectable thinning of the tank wall.

### Tank 28

Tank 28 was placed in service in 1980. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1979 and 1983 showed no detectable thinning of the tank wall.

### Tank 29

Tank 29 was placed in service in 1971. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1973 and 1974 showed no detectable thinning of the tank wall.

### Tank 30

Tank 30 was placed in service in 1974. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1975 showed no detectable thinning of the tank wall.

### Tank 31

Tank 31 was placed in service in 1972. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies.

### Tank 32

Tank 32 was placed in service in 1971. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies.

### Tank 33

Tank 33 was placed in service in 1969. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies.

### Tank 34

Tank 34 was placed in service in 1972. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies.

### Tank 35

Tank 35 was placed in service in 1977. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1977, 1981, and 1985 showed no detectable thinning of the tank wall.

### Tank 36

Tank 36 was placed in service in 1977. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1977, 1981, and 1985 showed no detectable thinning of the tank wall.

### Tank 37

Tank 37 was placed in service in 1978. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1977, 1981, and 1985 showed no detectable thinning of the tank wall.

### Tank 38

Tank 38 was placed in service in 1981. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1980, 1981, and 1984 showed no detectable thinning of the tank wall.

### Tank 39

Tank 39 was placed in service in 1982. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1980, 1981, 1984, and 1985 showed no detectable thinning of the tank wall.

### Tank 40

Tank 40 was placed in service in 1986. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1980, 1981, 1984, and 1996 showed no service-induced corrosion.

### Tank 41

Tank 41 was placed in service in 1982. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1980, 1981, and 1984 showed no detectable thinning of the tank wall.

### Tank 42

Tank 42 was placed in service in 1982. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1980, 1981, 1984, 1985, 1990, 1995, and 1996 showed no service-induced corrosion.

### Tank 43

Tank 43 was placed in service in 1982. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1980, 1981, 1984, and 1985 showed no detectable thinning of the tank wall.

### Tank 44

Tank 44 was placed in service in 1982. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1980, 1981, and 1984 showed no detectable thinning of the tank wall.

### Tank 45

Tank 45 was placed in service in 1982. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1980, 1981, and 1984 showed no detectable thinning of the tank wall.

### Tank 46

Tank 46 was placed in service as an emergency spare tank in 1980. It was placed in waste-storage service in 1994 when it began receiving concentrate from the 2F evaporator. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no significant surface corrosion or other anomalies. Ultrasonic thickness measurements made in 1980, 1981, and 1984 showed no detectable thinning of the tank wall.

### Tank 47

Tank 47 was placed in service in 1980. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1980, 1981, and 1984 showed no detectable thinning of the tank wall.

### Tank 48

Tank 48 was placed in service in 1983. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1982, 1994, 1995, and 1996 showed no service-induced corrosion.

### Tank 49

Tank 49 was placed in service in 1983. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1982, prior to placing the tank in service, and again in 1995 using P-scan System, provide reference measurements for the future.

### Tank 50

Tank 50 was placed in service in 1983. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1982, 1994, and 1995 showed no service-induced corrosion.

### Tank 51

Tank 51 was placed in service in 1986. Examinations of 100% of the exterior of the primary vessel wall and the annulus have shown no leakage, significant surface corrosion, or other anomalies. Ultrasonic thickness measurements made in 1982 and 1996 provide reference measurements.

## Appendix A—Waste Tanks at SRS

### SRS Waste Tank Specifications

Number	Location	Type	Project Number	Construction Period	Type of Construction*
1-8	F	I	8980	1951-1953	Double wall-cooled
9-12	H	I	8980	1951-1953	Double wall-cooled
13-16	H	II	8980 P.W.O.	1955-1956	Double wall-cooled
17-20	F	IV	981031	1958	Single wall-uncooled
21-24	H	IV	981089	1962	Single wall-uncooled
25-28	F	IIIA	951493 (75-1-a)	1975-1978	Double wall-cooled
29-32	H	III	981232	1967-1970	Double wall-cooled
33-34	F	IIIA	950974	1969-1972	Double wall-cooled
35-37	H	IIIA	951463 (74-1-a)	1974-1977	Double wall-cooled
38-43	H	IIIA	951618 (76-8-a)	1976-1980	Double wall-cooled
44-47	F	IIIA	951747	1977-1980	Double wall-cooled
48-51	H	IIIA	951828 (78-18-b)	1978-1981	Double wall-cooled

\* Tanks 32 and 35 have removable, roof-supported cooling coils. Tanks 30, 33, and 34 have bottom-supported deployable cooling coils. Tanks 29 and 31 have some deployable and some close-packed cooling assemblies, all bottom supported. All other cooled tanks have permanently installed cooling coils, roof-supported in Type I and II and bottom-supported in Type III tanks.

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## Appendix B—Summary of 1996 Inspections

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		ACCESS	OPENING		CCTV	/	408	
F	01	East	(A)	07/16/96	CCTV	/	408	CCTV was used to assist with repositioning of the dip tubes. The dip tubes were positioned with the lower tube approximately one inch above the annulus floor between the ventilation duct and tank wall.
F	01	East	(A)	07/24/96	CCTV	/	NA	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
F	01	East	(A)	08/15/96	CCTV	/	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was not contacting the tank wall. The magnet was attached to the wall on its side.
F	01	East	(A)	11/21/96	DP	/	8166:01-16	Tank condition had not changed. Magnetically mounted steel wall thermocouple was improperly positioned on the tank wall.
F	01	East	(A)	11/21/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The conductivity probe was properly positioned.
F	01	East	(A)	12/03/96	CCTV	/	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
F	01	North	(A)	11/21/96	DP	/	8163:01-17	Tank condition had not changed.
F	01	South	(A)	11/21/96	DP	/	8165:01-17	Tank condition had not changed.
F	01	West	(A)	08/15/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	01	West	(A)	11/21/96	DP	/	8167:01-17	Tank condition had not changed. Rainwater had leaked into the annulus, dissolved, and changed the distribution of the leaked waste on the annulus floor.
F	02	East	(A)	07/28/96	CCTV	/	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
F	02	East	(A)	10/15/96	DP	/	8130:01-17	Tank condition was normal.
F	02	North	(A)	07/26/96	WAP	/	8111:01	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		ACCESS	OPENING		IDENTIFICATION	/	NUMBER	
F	02	North	(A)	07/28/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	02	South	(A)	07/26/96	WAP	/	8111:02	Tank condition was normal.
F	02	South	(A)	07/28/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	02	West	(A)	07/26/96	WAP	/	8111:03	Tank condition was normal.
F	03	East	(A)	07/26/96	WAP	/	8112:02	Tank condition was normal.
F	03	North	(A)	07/26/96	WAP	/	8112:01	Tank condition was normal.
F	03	North	(A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	03	South	(A)	07/26/96	WAP	/	8112:03	Tank condition was normal.
F	03	South	(A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	03	West	(A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
F	03	West	(A)	10/17/96	DP	/	8134:01-17	Tank condition was normal. Stains and marks observed on the tank wall and the ventilation inlet duct were caused by water which had leaked into the annulus.
F	04	East	(A)	07/26/96	WAP	/	8113:02	Tank condition was normal. Stains on the tank wall, ventilation duct, and annulus floor were caused by water which had leaked into the annulus.
F	04	East	(A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
F	04	North	(A)	07/26/96	WAP	/	8113:01	Tank condition was normal. Stains on the annulus floor were caused by water which had leaked into the annulus.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>			<u>REMARKS</u>
F	04	North (A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	04	South (A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	04	South (A)	08/08/96	WAP	/	8115:01-02	Tank condition was normal.
F	04	West (A)	10/15/96	DP	/	8131:01-17	Tank condition was normal.
F	05	East (A)	07/25/96	WAP	/	8107:01	Tank condition was normal.
F	05	North (A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	05	North (A)	10/17/96	DP	/	8135:01-17	Tank condition was normal.
F	05	South (A)	07/25/96	WAP	/	8107:02	Tank condition was normal.
F	05	South (A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	05	West (A)	07/25/96	WAP	/	8107:03	Tank condition was normal. Stains on the tank wall and on top of ventilation duct were caused by water which had leaked into the annulus.
F	05	West (A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
F	06	East (A)	07/25/96	WAP	/	8108:02	Tank condition was normal. Stains on the annulus floor were caused by water which had leaked into the annulus.
F	06	East (A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
F	06	North (A)	07/25/96	WAP	/	8108:01	Tank condition was normal. Stains on the annulus floor were caused by water which had leaked into the annulus.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		ACCESS	OPENING		CCTV	/	367	
F	06	North	(A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	06	South	(A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	06	South	(A)	08/08/96	WAP	/	8116:01-02	Tank condition was normal. Stains and marks observed on the ventilation duct were caused by water that had leaked into the annulus.
F	06	West	(A)	10/15/96	DP	/	8132:01-17	Tank condition was normal.
F	07	North	(A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	07	North	(A)	10/17/96	DP	/	8136:01-17	Tank condition was normal. Stains observed on the annulus floor were due to the presence of water in the annulus.
F	07	South	(A)	07/25/96	WAP	/	8109:01	Tank condition was normal. Stains and marks observed on the tank wall were caused by water which had leaked into the annulus.
F	07	South	(A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	07	West	(A)	07/25/96	WAP	/	8109:02	Tank condition was normal. Stains and marks observed on the tank wall were caused by water which had leaked into the annulus.
F	07	West	(A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
F	08	East	(A)	07/24/96	WAP	/	8110:02	Tank condition was normal. Stains on the annulus floor were caused by water which had leaked into the annulus.
F	08	East	(A)	07/30/96	CCTV	/	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
F	08	North	(A)	07/24/96	WAP	/	8110:01	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS
				IDENTIFICATION	NUMBER	
F	08	North (A)	07/30/96	CCTV /	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	08	South (A)	07/24/96	WAP /	8110:03	Tank condition was normal. Stains on the annulus floor and top of the ventilation duct were caused by water which had leaked into the annulus.
F	08	South (A)	07/30/96	CCTV /	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	08	West (A)	10/15/96	DP /	8133:01-17	Tank condition was normal.
H	09	South (A)	07/20/96	CCTV /	367	CCTV was used to document the position of the conductivity probe. The probe was positioned on top of leaked waste and abandoned cables between the ventilation duct and the tank wall.
H	09	South (A)	07/20/96	WAP /	8102:01	Tank condition had not changed. Change in the configuration of the leaked waste in the annulus was caused by water which had leaked into the annulus.
H	09	West (A)	07/20/96	CCTV /	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
H	09	West (A)	07/20/96	CCTV /	NA	CCTV was used to document the position of the conductivity probe. The probe was not visible although the position of the probe wires indicated the probe was beneath the ventilation duct.
H	09	West (A)	11/18/96	DP /	8150:01-17	Tank condition had not changed. Water had continued to leak into the annulus resulting in reconfiguration in some of the surface areas of the leaked waste.
H	10	East (A)	07/20/96	CCTV /	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
H	10	East (A)	07/20/96	CCTV /	NA	CCTV was used to document the position of the conductivity probe. The probe was not visible although the position of the probe wires indicated the probe was beneath the ventilation duct.
H	10	East (A)	07/20/96	WAP /	8103:01	Tank condition had not changed. Changes in the configuration of the leaked waste in the annulus were caused by water which had leaked into the annulus.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD			REMARKS
				IDENTIFICATION / NUMBER	/		
H	10	West (A)	11/18/96	DP	/	8151:01-17	Tank condition had not changed.
H	11	East (A)	11/18/96	DP	/	8152:01-17	Tank condition had not changed. Stains observed on the annulus floor were caused by water which had leaked into the annulus.
H	11	North (A)	07/20/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
H	11	North (A)	11/18/96	DP	/	8153:01-17	Tank condition had not changed. Stains and marks observed on the annulus floor were caused by water which had leaked into the annulus.
H	11	South (A)	07/20/96	CCTV	/	NA	CCTV was used to document the position of the conductivity probe. The probe was not visible although the position of the probe wires indicated the probe was beneath the ventilation duct.
H	11	South (A)	07/20/96	WAP	/	8104:01	Tank condition had not changed.
H	11	West (A)	07/20/96	CCTV	/	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
H	11	West (A)	07/20/96	WAP	/	8104:02	Tank condition had not changed.
H	12	East (A)	07/20/96	CCTV	/	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly positioned on the tank wall.
H	12	East (A)	07/20/96	WAP	/	8105:01	Tank condition had not changed. Stains and marks were caused by water which had leaked into the annulus.
H	12	North (A)	07/20/96	CCTV	/	NA	CCTV was used to document the position of the conductivity probe. The probe was not visible although the position of the probe wires indicated the probe was beneath the ventilation duct.
H	12	North (A)	11/18/96	DP	/	8154:01-17	Tank condition had not changed.
H	12	South (A)	07/20/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS	
				IDENTIFICATION / NUMBER			
H	12	South (A)	07/20/96	WAP	/	8105:02	Tank condition had not changed.
H	12	West (A)	11/18/96	DP	/	8155:01-17	Tank condition had not changed. Stains and marks observed on the annulus floor were caused by water which had leaked into the annulus.
H	13	010 (A)	02/27/96	DP	/	8007:01-17	Tank condition had not changed.
H	13	032 (A)	02/27/96	DP	/	8008:01-16	Tank condition had not changed. Additional stains and marks on the tank wall were caused by rainwater that leaked into the annulus.
H	13	055 (A)	02/27/96	DP	/	8009:01-17	Tank condition had not changed.
H	13	071 (A)	02/27/96	DP	/	8012:01-17	Tank condition had not changed. Additional stains and marks on the tank wall were caused by rainwater that leaked into the annulus.
H	13	107 (A)	02/27/96	WAP	/	8013:03	Tank condition had not changed.
H	13	151 (A)	02/27/96	DP	/	8011:01-17	Tank condition had not changed.
H	13	175 (A)	02/27/96	WAP	/	8013:04	Tank condition had not changed.
H	13	207 (A)	02/27/96	WAP	/	8013:05	Tank condition had not changed. Stains and marks on the tank wall, annulus floor, and the pan ledge were caused by rainwater that leaked into the annulus.
H	13	228 (A)	02/27/96	DP	/	8010:01-16	Tank condition had not changed. Stains and marks on the tank wall and deposits on the ventilation duct were caused by rainwater that leaked into the annulus.
H	13	East (A)	02/27/96	WAP	/	8013:02	Tank condition had not changed.
H	13	North (A)	02/27/96	DP	/	8005:01-18	Tank condition had not changed. Stains and marks on top of the ventilation duct were caused by rainwater that leaked into the annulus.
H	13	North (A)	08/07/96	CCTV	/	367	CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER		REMARKS
		ACCESS	OPENING		METHOD	IDENTIFICATION / NUMBER	
H	13	South	(A)	02/27/96	DP /	8006:01-17	Tank condition had not changed. Stains on the tank wall were caused by rainwater that leaked into the annulus.
H	13	South	(A)	08/07/96	CCTV /	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
H	13	West	(A)	02/27/96	WAP /	8013:01	Tank condition had not changed. Additional stains and marks on the tank wall were caused by rainwater that leaked into the annulus.
H	14	013	(A)	02/21/96	WAP /	7993:03	Tank condition had not changed. Stains and marks on the tank wall and pan ledge were caused by rainwater that leaked into the annulus. Water was observed in the annulus. The rainwater had reconfigured some of the surface of the leaked waste in the annulus.
H	14	032	(A)	02/29/96	WAP /	7993:04	Tank condition had not changed. Water was observed in the annulus. The rainwater had reconfigured some of the surface of the leaked waste in the annulus.
H	14	065	(A)	02/21/96	DP /	7995:01-15	Tank condition had not changed. Stains and marks on the tank wall were caused by rainwater that leaked into the annulus. The rainwater had reconfigured some of the surface of the leaked waste in the annulus. High humidity and the presence of water in the annulus has caused a leaked waste deposit beneath the West riser to become detached from the tank wall.
H	14	108	(A)	02/21/96	DP /	7994:01-17	Tank condition had not changed. Rainwater that leaked into the annulus had reconfigured some of the surface of the leaked waste in the annulus.
H	14	118	(A)	02/29/96	DP /	8016:01-17	Tank condition had not changed. Stains and marks on the tank wall were caused by rainwater that leaked into the annulus. The rainwater had reconfigured some of the surface of the leaked waste in the annulus.
H	14	125	(A)	02/21/96	DP /	7996:01-17	Tank condition had not changed. Rainwater that leaked into the annulus had reconfigured some of the surface of the leaked waste in the annulus.
H	14	151	(A)	02/21/96	WAP /	7993:05	Tank condition had not changed. Rainwater that leaked into the annulus had reconfigured some of the surface of the leaked waste in the annulus.
H	14	170	(A)	02/21/96	WAP /	7993:06	Tank condition had not changed. Stains on the tank wall were caused by rainwater that leaked into the annulus. The rainwater had reconfigured some of the surface of the leaked waste in the annulus.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD IDENTIFICATION / NUMBER		REMARKS	
				WAP	/		
H	14	207 (A)	02/21/96	WAP	/	7993:07	Tank condition had not changed. Rainwater that leaked into the annulus had reconfigured some of the surface of the leaked waste in the annulus.
H	14	235 (A)	02/21/96	WAP	/	7993:08	Tank condition had not changed. Water was observed in the annulus. Rainwater that leaked into the annulus had reconfigured some of the surface of the leaked waste in the annulus.
H	14	259 (A)	02/21/96	WAP	/	7993:09	Tank condition had not changed. Stains and marks on the tank wall, concrete wall, ventilation duct, and pan ledge were caused by rainwater that leaked into the annulus. Water was observed in the annulus. The rainwater had reconfigured some of the surface of the leaked waste in the annulus.
H	14	East (A)	02/21/96	WAP	/	7993:02	Tank condition had not changed. Stains and marks on the tank wall and pan ledge were caused by rainwater that leaked into the annulus. Water was observed in the annulus. The rainwater had reconfigured some of the surface of the leaked waste in the annulus.
H	14	East (A)	08/07/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
H	14	North (A)	02/21/96	WAP	/	7993:01	Tank condition had not changed. Stains and marks on the tank wall and concrete wall were caused by rainwater that leaked into the annulus. The rainwater had reconfigured some of the surface of the leaked waste in the annulus.
H	14	North (A)	03/26/96	CCTV	/	387	Inspection was made to validate deployment of the magnetically mounted thermocouple and the conductivity probe. The thermocouple was properly positioned on the tank wall. The probe was properly positioned on the annulus floor.
H	15	010 (A)	06/14/96	WAP	/	8077:03	Tank condition had not changed.
H	15	032 (A)	11/20/96	DP	/	8156:01-17	Tank condition had not changed. Stains and marks observed on the annulus floor were caused by water which had leaked into the annulus.
H	15	055 (A)	11/20/96	DP	/	8157:01-17	Tank condition had not changed.
H	15	071 (A)	11/20/96	DP	/	8158:01-17	Tank condition had not changed.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER		REMARKS
		NUMBER	TYPE		METHOD	NUMBER	
H	15	107	(A)	06/14/96	WAP	/	8077:04
H	15	107	(A)	06/25/96	CCTV	/	403
H	15	117	(A)	06/14/96	WAP	/	8077:05
H	15	137	(A)	06/14/96	WAP	/	8077:06
H	15	137	(A)	06/25/96	CCTV	/	403
H	15	137	(A)	12/16/96	DP	/	8178:01-05
H	15	171	(A)	06/14/96	WAP	/	8077:07

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS
				IDENTIFICATION / NUMBER	/	
H	15	171 (A)	06/25/96	CCTV	/	403
						Inspection revealed rainwater had leaked into the annulus and redistributed the dry waste deposits on the ventilation duct and annulus floor. There was no evidence that additional waste had leaked into the annulus. No additional leaksite or change in leaked waste deposits at the existing leaksites was observed.
H	15	182 (A)	06/14/96	WAP	/	8077:08
						Tank condition had not changed. Rain and ground water had leaked into the annulus. The annulus floor remained damp while the annulus fan was out of service.
H	15	207 (A)	06/14/96	DP	/	8078:01-17
						Artifacts on the steel tank wall at the middle girth weld give evidence that a crack may exist at this location. Addition examination is planned to characterize this anomaly. Otherwise, stains on the tank wall had increased due to water leaking into the annulus and cascading down the tank wall.
H	15	207 (A)	10/14/96	CCTV	/	403
						CCTV was used to examine the deposits found on the tank wall at the middle girth weld by inspection made on 06/14/96. Comparison of these images indicated the material in the deposits may have increased very slightly since photographed on 06/14/96
H	15	223 (A)	11/20/96	DP	/	8159:01-17
						Tank condition had not changed.
H	15	242 (A)	08/07/96	CCTV	/	367
						CCTV was used to document the position of the magnetically mounted thermocouple. The thermocouple was properly mounted on the tank wall.
H	15	East (A)	06/14/96	WAP	/	8077:02
						Tank condition had not changed. Rain and ground water had leaked into the annulus. The annulus floor remained damp while the ventilation fan was out of service.
H	15	North (A)	10/14/96	CCTV	/	367
						CCTV was used to document the position of the conductivity probe. The probe was not visible although the position of the probe wires indicated the probe was beneath the ventilation duct.
H	15	North (A)	11/20/96	DP	/	8161:01-17
						Tank condition had not changed. A mass of crystallized salt formed by waste which leaked from the tank many years ago had been partially dissolved and recrystallized. Moisture in the annulus was the consequence of rain and ground water leaking into the annulus while several outages of the annulus ventilation system occurred over a period of several months.
H	15	South (A)	06/14/96	WAP	/	8077:01
						Tank condition had not changed.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>
H	15	South (A)	10/14/96	CCTV	/	367
						CCTV was used to validate positioning of the conductivity probe. The conductivity probe was observed between the ventilation duct and the secondary containment wall.
H	15	West (A)	11/20/96	DP	/	8160:01-17
						Tank condition had not changed.
H	16	035 (A)	02/29/96	WAP	/	8018:01
						Tank condition had not changed. Rainwater which leaked into the annulus had changed the distribution of the leaked waste on the annulus floor.
H	16	118 (A)	02/29/96	WAP	/	8018:02
						Tank condition had not changed. Rainwater which leaked into the annulus had changed the distribution of the leaked waste on the annulus floor.
H	16	207 (A)	02/29/96	WAP	/	8018:03
						Tank condition had not changed.
H	16	262 (A)	02/29/96	WAP	/	8018:04
						Tank condition had not changed. Rainwater which leaked into the annulus had changed the distribution of the leaked waste on the annulus floor.
H	16	East (A)	02/29/96	DP	/	8020:01-16
						Tank condition had not changed.
H	16	West (A)	02/29/96	DP	/	8026:01-16
						Tank condition had not changed.
F	17	East (I)	08/06/96	WAP	/	8119:07-11
						Tank condition was normal.
F	17	West (I)	08/06/96	WAP	/	8119:01-06
						Tank condition was normal.
F	18	Center (I)	07/23/96	WAP	/	8106:01-16
						Tank condition was normal. Photographic documentation indicated the configuration of the waste surface had changed since receiving a transfer from Tank 20.
F	19	NE (I)	08/06/96	WAP	/	8120:01-06
						Tank condition had not changed.
F	19	SW (I)	08/06/96	WAP	/	8120:07-12
						Tank condition had not changed.
F	20	Center (I)	07/17/96	WAP	/	8096:01-14
						Tank condition had not changed. Approximately five inches of liquid was transferred from the tank exposing solids and debris.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS
				IDENTIFICATION / NUMBER		
F	20	Center (I)	07/25/96	CCTV /	402	CCTV was used to document surface conditions and view a liquid level indicator. Liquid level at the SW riser was approximately 1.5 inches.
F	20	SW (I)	07/03/96	CCTV /	402	CCTV was used to document conditions and to assist Operations during transfer of liquid to Tank 18, and the collection of a sludge and a liquid sample. Mounds of solids were observed beneath the W, SE, NE, and Center risers. Rope, conduit, and other debris was laying on the tank bottom. No unusual conditions were observed.
H	21	NE (I)	11/12/96	WAP /	8164:01-10	Tank condition was normal.
H	22		10/10/96	HELIUM /	HE-96-021	Helium tracer test of the transfer line from the Tank 22 valve box to Tank 22 identified the leak site location for excavation and repair.
H	22		10/30/96	CCTV /		CCTV was used to assist with the removal of obstructions from the sidewall sump of Tank 22. Four rods were removed from the side wall sump stand pipe. No other unusual condition was observed.
H	22		11/05/96	CCTV /		CCTV was used to assist with the removal of obstructions from the sidewall sump of Tank 22. Two rods were removed from the side wall sump stand pipe. No other unusual condition was observed.
H	22	NW (I)	11/07/96	WAP /	8149:01-12	Tank condition was normal. Stains and marks observed on concrete dome were caused by water inleakage through center riser.
H	23	SW (I)	08/05/96	PSP /	8118:01-36	Tank condition was normal.
H	24	(I)	05/23/96	CCTV /	376	CCTV was used in the west sidewall sump to determine if any obstructions were present and to document conditions in the sump. No obstructions were observed.
H	24	NW (I)	10/29/96	WAP /	8143:01-11	Tank condition was normal.
H	24	SE (I)	10/29/96	WAP /	8143:12-15	Tank condition was normal.
F	25	A-01 (A)	07/27/96	CCTV /	V0001	Tank condition was normal.
F	25	A-01 (A)	12/04/96	DP /	8177:01-25	Tank condition was normal.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>
F	25	A-02 (A)	04/24/96	CCTV	/	367
F	25	A-02 (A)	07/03/96	CCTV	/	367
F	25	A-02 (A)	07/27/96	CCTV	/	V0002
F	25	A-02 (A)	12/04/96	DP	/	8175:01-25
F	25	A-03 (A)	04/24/96	CCTV	/	367
F	25	A-03 (A)	07/03/96	CCTV	/	367
F	25	A-03 (A)	07/27/96	CCTV	/	V0003
F	25	A-03 (A)	12/04/96	DP	/	8176:01-25
F	25	A-04 (A)	04/24/96	CCTV	/	367
F	25	A-04 (A)	07/03/96	CCTV	/	367
F	25	A-04 (A)	07/27/96	CCTV	/	V0004
F	25	A-04 (A)	12/04/96	DP	/	8174:01-25
F	25	P-01 (A)	04/25/96	WAP	/	8072:01
F	25	P-02 (A)	04/25/96	WAP	/	8072:02

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD			REMARKS
				IDENTIFICATION / NUMBER			
F	25	P-03 (A)	04/25/96	WAP	/	8072:03	Tank condition was normal.
F	25	P-04 (A)	04/25/96	WAP	/	8072:04	Tank condition was normal.
F	25	P-05 (A)	04/25/96	WAP	/	8072:05	Tank condition was normal.
F	25	P-06 (A)	04/25/96	WAP	/	8072:06	Tank condition was normal.
F	25	P-07 (A)	04/25/96	WAP	/	8072:07	Tank condition was normal.
F	25	P-08 (A)	04/25/96	WAP	/	8072:08	Tank condition was normal.
F	25	P-09 (A)	04/25/96	WAP	/	8072:09	Tank condition was normal.
F	25	P-10 (A)	04/25/96	WAP	/	8072:10	Tank condition was normal.
F	25	P-11 (A)	04/25/96	WAP	/	8072:11	Tank condition was normal.
F	25	P-12 (A)	04/25/96	WAP	/	8072:12	Tank condition was normal.
F	25	P-13 (A)	04/25/96	WAP	/	8072:13	Tank condition was normal.
F	25	P-14 (A)	04/25/96	WAP	/	8072:14	Tank condition was normal.
F	25	C-01 (I)	05/13/96	CCTV	/	387	CCTV was used to facilitate remote operations during replacement of the transfer jet, and size reduction (cutting of the jet legs) for disposal. No leakage was observed during the leak check of the jet installed in the tank.
F	26	A-01 (A)	04/25/96	WAP	/	8073:01	Tank condition was normal.
F	26	A-02 (A)	04/24/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
F	26	A-02 (A)	04/25/96	WAP	/	8073:02	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		A	I		CCTV	/	367	
F	26	A-03	(A)	04/24/96	WAP	/	8073:03	Tank condition was normal. Stains and marks on the secondary vessel wall and ventilation duct were caused by water which had leaked into the annulus.
F	26	A-03	(A)	04/24/96	WAP	/	8073:04	Tank condition was normal.
F	26	A-04	(A)	04/25/96	WAP	/	8073:05	Tank condition was normal.
F	26	P-01	(A)	04/11/96	DP	/	8045:01-25	Tank condition was normal.
F	26	P-01	(A)	05/16/96	CCTV	/	396	Inspection revealed space between the secondary vessel wall and the cover plate. Rainwater that leaked into the annulus via this space was the source of stains observed on the secondary vessel wall when inspected on 4/24/96.
F	26	P-02	(A)	04/11/96	DP	/	8046:01-25	Tank condition was normal.
F	26	P-03	(A)	04/25/96	WAP	/	8073:06	Tank condition was normal.
F	26	P-04	(A)	04/25/96	WAP	/	8073:07	Tank condition was normal.
F	26	P-05	(A)	04/25/96	WAP	/	8073:08	Tank condition was normal.
F	26	P-06	(A)	04/25/96	WAP	/	8073:09	Tank condition was normal.
F	26	P-07	(A)	04/11/96	DP	/	8047:01-25	Tank condition was normal. Stains and marks on the ventilation duct were caused by the inleakage of water.
F	26	P-08	(A)	04/11/96	DP	/	8048:01-25	Tank condition was normal. Stains and marks on the secondary wall were caused by the inleakage of water.
F	26	P-09	(A)	04/11/96	DP	/	8049:01-25	Tank condition was normal.
F	26	P-10	(A)	04/25/96	WAP	/	8073:10	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS
				IDENTIFICATION / NUMBER		
F	26	P-10 (A)	12/19/96	CCTV /	434	Water marks and stains were observed on the annulus floor while water was present atop the annulus ventilation duct. Water marks and stains on the secondary vessel wall beneath penetrations for process lines WC3 and WC2 indicated the seals at these line penetrations had failed allowing groundwater to leak into the annulus.
F	26	P-11 (A)	04/25/96	WAP /	8073:10	Tank condition was normal.
F	26	P-11 (A)	12/19/96	CCTV /	434	Water marks and stains were observed on the annulus floor while water was present atop the annulus ventilation duct. Water marks and stains on the secondary vessel wall beneath penetrations for process lines WC3 and WC2 indicated the seals at these line penetrations had failed allowing groundwater to leak into the annulus.
F	26	P-12 (A)	04/25/96	WAP /	8073:11	Tank condition was normal.
F	26	P-13 (A)	04/25/96	WAP /	8073:12	Tank condition was normal.
F	26	P-14 (A)	04/25/96	WAP /	8073:13	Tank condition was normal.
F	26	R-02 (I)	08/21/96	CCTV /	413	CCTV revealed that the conductivity probe was contacting the metal surfaces of the nozzle box. Due to condensate in this space, the probe was alarming. The condition was corrected by raising the probe approximately five feet above the pump can.
F	27	A-01 (A)	10/24/96	DP /	8144:01-25	Tank condition was normal.
F	27	A-02 (A)	04/24/96	CCTV /	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
F	27	A-02 (A)	10/24/96	DP /	8145:01-24	Tank condition was normal.
F	27	A-03 (A)	04/24/96	CCTV /	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
F	27	A-03 (A)	10/24/96	DP /	8147:01-25	Tank condition was normal.
F	27	A-04 (A)	04/24/96	CCTV /	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		A	I		DP	/	8146:01-25	
F	27	A-04	(A)	10/24/96	WAP	/	8095:01	Tank condition was normal.
F	27	P-01	(A)	08/26/96	WAP	/	8095:02	Tank condition was normal.
F	27	P-02	(A)	08/26/96	WAP	/	8095:03	Tank condition was normal.
F	27	P-03	(A)	08/26/96	WAP	/	8095:04	Tank condition was normal.
F	27	P-04	(A)	08/26/96	WAP	/	8095:05	Tank condition was normal.
F	27	P-05	(A)	08/26/96	WAP	/	8095:06	Tank condition was normal.
F	27	P-06	(A)	08/26/96	WAP	/	8095:07	Tank condition was normal.
F	27	P-08	(A)	08/26/96	WAP	/	8095:08	Tank condition was normal.
F	27	P-09	(A)	08/26/96	WAP	/	8095:09	Tank condition was normal.
F	27	P-10	(A)	08/26/96	WAP	/	8095:09	Tank condition was normal.
F	27	P-11	(A)	08/26/96	WAP	/	8095:11	Tank condition was normal.
F	27	P-12	(A)	08/26/96	WAP	/	8095:12	Tank condition was normal.
F	27	P-13	(A)	08/26/96	WAP	/	8095:13	Tank condition was normal.
F	27	P-14	(A)	08/26/96	WAP	/	8095:14	Tank condition was normal.
F	28	A-01	(A)	08/27/96	WAP	/	8125:01	Tank condition was normal.
F	28	A-02	(A)	04/25/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		NUMBER	TYPE		METHOD	IDENTIFICATION		
F	28	A-02	(A)	08/27/96	WAP	/	8125:02	Tank condition was normal.
F	28	A-03	(A)	04/25/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
F	28	A-03	(A)	08/27/96	WAP	/	8125:03	Tank condition was normal.
F	28	A-04	(A)	04/25/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
F	28	A-04	(A)	08/27/96	WAP	/	8125:04	Tank condition was normal.
F	28	P-01	(A)	04/11/96	DP	/	8052:01-25	Tank condition was normal.
F	28	P-02	(A)	08/27/96	WAP	/	8125:05	Tank condition was normal.
F	28	P-03	(A)	08/27/96	WAP	/	8125:06	Tank condition was normal.
F	28	P-04	(A)	04/11/96	DP	/	8053:01-26	Tank condition was normal.
F	28	P-05	(A)	08/27/96	WAP	/	8125:06	Tank condition was normal.
F	28	P-06	(A)	08/27/96	WAP	/	8125:08	Tank condition was normal.
F	28	P-07	(A)	04/11/96	DP	/	8054:01-25	Tank condition was normal.
F	28	P-08	(A)	08/27/96	WAP	/	8125:08	Tank condition was normal.
F	28	P-09	(A)	08/27/96	WAP	/	8125:10	Tank condition was normal.
F	28	P-10	(A)	08/27/96	WAP	/	8125:11	Tank condition was normal.
F	28	P-11	(A)	04/11/96	DP	/	8050:01-25	Tank condition was normal.
F	28	P-12	(A)	08/27/96	WAP	/	8125:11	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		ACCESS	OPENING		WAP	/	8125:13	
F	28	P-13	(A)	08/27/96	WAP	/	8125:13	Tank condition was normal.
F	28	P-14	(A)	08/27/96	WAP	/	8125:14	Tank condition was normal.
H	29	A-01	(A)	02/14/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	29	A-01	(A)	08/01/96	WAP	/	8117:01	Tank condition was normal.
H	29	A-02	(A)	02/14/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	29	A-02	(A)	08/01/96	WAP	/	8117:02	Tank condition was normal.
H	29	A-03	(A)	08/01/96	WAP	/	8117:03	Tank condition was normal.
H	29	A-04	(A)	02/14/96	CCTV	/	367	CCTV was used to validate the deployment of the magnetically mounted wall thermocouple and the conductivity probe. The thermocouple was properly positioned on the tank wall. The probe was properly positioned on the annulus floor.
H	29	A-04	(A)	08/01/96	WAP	/	8117:04	Tank condition was normal. Stains on the secondary vessel wall were caused by water which had leaked into the annulus.
H	29	P-01	(A)	10/22/96	DP	/	8139:01-25	Tank condition was normal.
H	29	P-02	(A)	08/01/96	WAP	/	8117:05	Tank condition was normal.
H	29	P-03	(A)	08/01/96	WAP	/	8117:06	Tank condition was normal.
H	29	P-04	(A)	10/22/96	DP	/	8140:01-25	Tank condition was normal.
H	29	P-05	(A)	08/01/96	WAP	/	8117:07	Tank condition was normal.
H	29	P-06	(A)	08/01/96	WAP	/	8117:08	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS
				IDENTIFICATION / NUMBER		
H	29	P-07 (A)	10/22/96	DP	/ 8141:01-25	Tank condition was normal.
H	29	P-08 (A)	08/01/96	WAP	/ 8117:09	Tank condition was normal.
H	29	P-09 (A)	08/01/96	WAP	/ 8117:10	Tank condition was normal.
H	29	P-10 (A)	08/01/96	WAP	/ 8117:11	Tank condition was normal.
H	29	P-11 (A)	08/01/96	WAP	/ 8117:12	Tank condition was normal.
H	29	P-12 (A)	08/01/96	WAP	/ 8117:13	Tank condition was normal.
H	29	P-13 (A)	08/01/96	WAP	/ 8117:14	Tank condition was normal.
H	29	P-14 (A)	08/01/96	WAP	/ 8117:15	Tank condition was normal.
H	30	A-01 (A)	02/14/96	CCTV	/ 367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	30	A-01 (A)	09/17/96	WAP	/ 8126:01	Tank condition was normal.
H	30	A-02 (A)	02/14/96	CCTV	/ 367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	30	A-02 (A)	09/23/96	WAP	/ 8126:02	Tank condition was normal.
H	30	A-03 (A)	09/23/96	WAP	/ 8126:03	Tank condition was normal. Stains and marks observed on the ventilation duct were caused by water which had leaked into the annulus.
H	30	A-04 (A)	02/14/96	CCTV	/ 367	CCTV was used to validate the deployment of the magnetically mounted wall thermocouple and the conductivity probe. The thermocouple was properly positioned on the tank wall. The probe was properly positioned on the annulus floor.
H	30	A-04 (A)	09/17/96	WAP	/ 8126:04	Tank condition was normal.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>			<u>REMARKS</u>
H	30	P-01 (A)	10/21/96	DP	/	8137:01-25	Tank condition was normal.
H	30	P-02 (A)	09/17/96	WAP	/	8126:05	Tank condition was normal.
H	30	P-03 (A)	09/17/96	WAP	/	8126:06	Tank condition was normal.
H	30	P-04 (A)	08/12/96	CCTV	/	T001	Tank condition was normal.
H	30	P-04 (A)	10/21/96	DP	/	8138:01-25	Tank condition was normal.
H	30	P-05 (A)	09/17/96	WAP	/	8126:07	Tank condition was normal.
H	30	P-06 (A)	09/17/96	WAP	/	8126:08	Tank condition was normal. Stains and marks observed on the ventilation duct were caused by water which had leaked into the annulus.
H	30	P-07 (A)	06/18/96	DP	/	8079:01-25	Tank condition was normal.
H	30	P-08 (A)	09/17/96	WAP	/	8126:09	Tank condition was normal. Stains and marks observed on the ventilation duct were caused by water which had leaked into the annulus.
H	30	P-09 (A)	09/17/96	WAP	/	8126:10	Tank condition was normal. Stains and marks observed on the ventilation duct were caused by water which had leaked into the annulus.
H	30	P-10 (A)	09/23/96	WAP	/	8126:11	Tank condition was normal.
H	30	P-11 (A)	06/18/96	DP	/	8080:01-25	Tank condition was normal.
H	30	P-12 (A)	06/18/96	DP	/	8081:01-25	Tank condition was normal.
H	30	P-13 (A)	09/23/96	WAP	/	8126:12	Tank condition was normal.
H	30	P-14 (A)	11/25/96	WAP	/	8168:01-02	Tank condition was normal. Stains and marks on the annulus duct were caused by water which had leaked into the annulus.
H	31	A-01 (A)	02/13/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		A	I		WAP	/	8075:01	
H	31	A-01	(A)	06/06/96	WAP	/	8075:01	Tank condition was normal.
H	31	A-02	(A)	02/13/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	31	A-02	(A)	06/06/96	WAP	/	8075:02	Tank condition was normal.
H	31	A-03	(A)	06/06/96	WAP	/	8075:03	Tank condition was normal.
H	31	A-04	(A)	02/13/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	31	A-04	(A)	02/14/96	CCTV	/	367	CCTV was used to validate the deployment of the magnetically mounted wall thermocouple. The thermocouple was properly positioned on the tank wall.
H	31	A-04	(A)	06/06/96	WAP	/	8075:04	Tank condition was normal.
H	31	P-01	(A)	06/17/96	DP	/	8082:01-25	Tank condition was normal.
H	31	P-02	(A)	06/06/96	WAP	/	8075:05	Tank condition was normal.
H	31	P-03	(A)	06/06/96	WAP	/	8075:06	Tank condition was normal.
H	31	P-04	(A)	06/18/96	DP	/	8083:01-24	Tank condition was normal.
H	31	P-05	(A)	06/06/96	WAP	/	8075:07	Tank condition was normal.
H	31	P-06	(A)	06/06/96	WAP	/	8075:08	Tank condition was normal. An absorbent wipe was observed on the ventilation duct.
H	31	P-07	(A)	06/20/96	DP	/	8084:01-25	Tank condition was normal.
H	31	P-08	(A)	06/06/96	WAP	/	8075:09	Tank condition was normal. An absorbent wipe was observed on the ventilation duct.
H	31	P-09	(A)	06/06/96	WAP	/	8075:10	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		P	10		WAP	/	8075:11	
H	31	P-10	(A)	06/06/96	WAP	/	8075:11	Tank condition was normal.
H	31	P-11	(A)	06/18/96	DP	/	8085:01-25	Tank condition was normal.
H	31	P-12	(A)	06/06/96	WAP	/	8075:12	Tank condition was normal.
H	31	P-13	(A)	06/06/96	WAP	/	8075:13	Tank condition was normal.
H	31	P-14	(A)	06/06/96	WAP	/	8075:14	Tank condition was normal.
H	32	A-01	(A)	02/13/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	32	A-01	(A)	06/06/96	WAP	/	8076:01	Tank condition was normal.
H	32	A-02	(A)	02/13/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	32	A-02	(A)	06/06/96	WAP	/	8076:02	Tank condition was normal.
H	32	A-03	(A)	06/06/96	WAP	/	8076:03	Tank condition was normal.
H	32	A-04	(A)	02/14/96	CCTV	/	367	CCTV was used to validate the deployment of the magnetically mounted wall thermocouple and the conductivity probe. The thermocouple was properly positioned on the tank wall. The probe was properly positioned on the annulus floor.
H	32	A-04	(A)	06/06/96	WAP	/	8076:04	Tank condition was normal.
H	32	P-01	(A)	06/17/96	DP	/	8086:01-25	Tank condition was normal.
H	32	P-02	(A)	06/06/96	WAP	/	8076:05	Tank condition was normal.
H	32	P-03	(A)	06/06/96	WAP	/	8076:06	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		TYPE	NUMBER		METHOD	IDENTIFICATION		
H	32	P-04	(A)	06/18/96	DP	/	8087:01-25	Tank condition was normal. Stains on the secondary vessel wall had increased due to water leaking into the annulus and cascading down the wall.
H	32	P-05	(A)	06/06/96	WAP	/	8076:07	Tank condition was normal.
H	32	P-06	(A)	06/06/96	WAP	/	8076:08	Tank condition was normal.
H	32	P-07	(A)	06/17/96	DP	/	8088:01-25	Tank condition was normal.
H	32	P-08	(A)	06/06/96	WAP	/	8076:09	Tank condition was normal.
H	32	P-09	(A)	06/06/96	WAP	/	8076:10	Tank condition was normal.
H	32	P-10	(A)	06/06/96	WAP	/	8076:11	Tank condition was normal.
H	32	P-11	(A)	06/17/96	DP	/	8089:01-25	Tank condition was normal.
H	32	P-12	(A)	08/01/96	WAP	/	8076:12	Tank condition was normal.
H	32	P-13	(A)	06/06/96	WAP	/	8076:13	Tank condition was normal.
H	32	P-14	(A)	06/06/96	WAP	/	8076:14	Tank condition was normal.
H	32	P-15	(A)	06/06/96	WAP	/	8076:15	Tank condition was normal.
H	32	E-02	(I)	12/05/96	CCTV	/	431	CCTV was used to examine the plastic liner of the port where the reel tape enters the tank. The liner was degraded. It was split and broken. Fragments had broken out causing partial blockage and creating access for the tape to contact the steel tank before exiting the port through the tanks top.
F	33	A-01	(A)	04/29/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
F	33	A-01	(A)	05/06/96	WAP	/	8062:01	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		A	I		CCTV	/	367	
F	33	A-01	(A)	09/04/96	CCTV	/	367	CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
F	33	A-02	(A)	04/29/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
F	33	A-02	(A)	05/06/96	WAP	/	8062:02	Tank condition was normal.
F	33	A-03	(A)	06/06/96	WAP	/	8062:03	Tank condition was normal.
F	33	A-04	(A)	04/29/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe and the thermocouple. The probe was properly positioned on the annulus floor. The thermocouple was properly positioned on the tank wall.
F	33	A-04	(A)	05/06/96	WAP	/	8062:04	Tank condition was normal.
F	33	P-01	(A)	04/15/96	DP	/	8056:01-25	Tank condition was normal.
F	33	P-02	(A)	05/06/96	WAP	/	8071:01	Tank condition was normal. Stains and marks on the secondary wall were caused by water which had leaked into the annulus.
F	33	P-03	(A)	05/06/96	WAP	/	8071:02	Tank condition was normal.
F	33	P-04	(A)	04/15/96	DP	/	8057:01-25	Tank condition was normal.
F	33	P-05	(A)	05/06/96	WAP	/	8071:03	Tank condition was normal.
F	33	P-06	(A)	05/06/96	WAP	/	8071:04	Tank condition was normal. Stains and marks on the secondary wall were caused by water which had leaked into the annulus.
F	33	P-07	(A)	04/15/96	DP	/	8058:01-25	Tank condition was normal.
F	33	P-08	(A)	05/06/96	WAP	/	8071:05	Tank condition was normal. Stains on the annulus floor were caused by water that leaked into the annulus via the riser.
F	33	P-09	(A)	05/06/96	WAP	/	8071:06	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS	
				IDENTIFICATION / NUMBER			
F	33	P-10 (A)	05/06/96	WAP	/	8071:07	Tank condition was normal.
F	33	P-11 (A)	04/15/96	DP	/	8059:01-25	Tank condition was normal.
F	33	P-12 (A)	05/06/96	WAP	/	8071:08	Tank condition was normal.
F	33	P-13 (A)	05/06/96	WAP	/	8071:09	Tank condition was normal. Stains and marks on the secondary wall were caused by water which had leaked into the annulus.
F	33	P-14 (A)	05/06/96	WAP	/	8071:10	Tank condition was normal.
F	33	P-15 (A)	05/06/96	WAP	/	8071:11	Tank condition was normal.
F	33	P-16 (A)	04/15/96	DP	/	8060:01-25	Tank condition was normal.
F	34	A-01 (A)	01/04/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	34	A-01 (A)	05/06/96	WAP	/	8074:01	Tank condition was normal.
F	34	A-02 (A)	01/04/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	34	A-02 (A)	05/06/96	WAP	/	8074:02	Tank condition was normal.
F	34	A-03 (A)	05/06/96	WAP	/	8074:03	Tank condition was normal.
F	34	A-04 (A)	01/04/96	CCTV	/	367	Inspection was made to validate deployment of the magnetically mounted thermocouple and the conductivity probe. The thermocouple was properly positioned on the tank wall. The conductivity probe was properly deployed on the annulus floor.
F	34	A-04 (A)	05/06/96	WAP	/	8074:04	Tank condition was normal.
F	34	P-01 (A)	04/11/96	DP	/	8051:01-23	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		P	O		WAP	/	8074:05	
F	34	P-02	(A)	05/06/96	WAP	/	8074:05	Tank condition was normal.
F	34	P-03	(A)	05/06/96	WAP	/	8074:06	Tank condition was normal.
F	34	P-04	(A)	04/11/96	DP	/	8061:01-25	Tank condition was normal.
F	34	P-05	(A)	05/06/96	WAP	/	8074:07	Tank condition was normal.
F	34	P-06	(A)	05/06/96	WAP	/	8074:08	Tank condition was normal.
F	34	P-07	(A)	04/11/96	DP	/	8063:01-25	Tank condition was normal. The calciferous deposits on the secondary vessel wall had increased indicating groundwater continued to leak into the annulus via the unsealed junction of the secondary vessel wall and the annulus cover plates.
F	34	P-08	(A)	05/06/96	WAP	/	8074:09	Tank condition was normal.
F	34	P-09	(A)	05/06/96	WAP	/	8074:10	Tank condition was normal.
F	34	P-10	(A)	05/06/96	WAP	/	8074:11	Tank condition was normal.
F	34	P-11	(A)	04/11/96	DP	/	8065:01-25	Tank condition was normal. Additional deposits on the secondary vessel wall and annulus floor were caused by rainwater that leaked into the annulus.
F	34	P-12	(A)	05/06/96	WAP	/	8074:12	Tank condition was normal.
F	34	P-13	(A)	05/06/96	WAP	/	8074:13	Tank condition was normal.
F	34	P-14	(A)	05/06/96	WAP	/	8074:14	Tank condition was normal.
F	34	P-15	(A)	05/06/96	WAP	/	8074:15	Tank condition was normal.
F	34	P-16	(A)	04/11/96	DP	/	8064:01-25	Tank condition was normal. Additional deposits on the annulus floor were caused by rainwater that leaked into the annulus.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>	
H	35		10/17/96	HELIUM	/	HE-96-022	Helium tracer test of the steam line from the Tanks 35 - 37 gang valves to the Tank 35 annulus jet was inconclusive.
H	35		10/30/96	HELIUM	/	HE-96-024	Helium tracer test of the steam line from the Tanks 35 - 37 gang valves to the Tank 35 transfer jet verified the integrity of the line.
H	35	A-01 (A)	07/10/96	WAP	/	8098:01	Tank condition was normal.
H	35	A-02 (A)	02/15/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	35	A-02 (A)	07/10/96	WAP	/	8098:02	Tank condition was normal.
H	35	A-03 (A)	02/15/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	35	A-03 (A)	07/10/96	WAP	/	8098:03	Tank condition was normal.
H	35	A-04 (A)	02/15/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	35	A-04 (A)	06/04/96	CCTV	/	392	Inspection revealed water was present on the tank top knuckle, annulus cover plates, and cover plate supports. Water marks and mild surfaces corrosion was observed on the tank walls, transfer line, cover plates, and cover plate supports.
H	35	A-04 (A)	06/08/96	CCTV	/	397	The water present in the annulus was likely from a leak in the flush water line embedded in the concrete above in the wet area. The flush water was valved off; but, inspection showed the area still wet. Additional inspection will be made to evaluate this condition when process needs permit the water to remain valved off long enough to reveal drying in the annulus.
H	35	A-04 (A)	07/10/96	WAP	/	8098:04	Tank condition was normal.
H	35	A-04 (A)	08/12/96	CCTV	/	397	CCTV inspection was made to document roof condition after isolation of flush water to the tank. Twelve hours after closing the water valve, the roof had dried considerably. A leak in the flush water line appeared to be the source of water in the annulus.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER		REMARKS	
		TYPE	NUMBER		METHOD	IDENTIFICATION / NUMBER		
H	35	All	(A)	05/22/96	CCTV	/	391	Inspections were made via all annulus access risers to inspect all ventilation duct outlets for blockage. The outlet beneath the P-6 riser was partially blocked by a mass that appeared to be concrete. No other duct outlet was blocked.
H	35	F	(A)	09/17/96	CCTV	/	418	CCTV was used to inspect the annulus jet steam supply line. The line was blanked isolating the jet from the steam supply.
H	35	P-01	(A)	07/10/96	WAP	/	8098:05	Tank condition was normal.
H	35	P-02	(A)	07/10/96	WAP	/	8098:06	Tank condition was normal.
H	35	P-03	(A)	07/10/96	WAP	/	8098:07	Tank condition was normal.
H	35	P-04	(A)	07/10/96	WAP	/	8098:08	Tank condition was normal.
H	35	P-05	(A)	07/10/96	WAP	/	8098:09	Tank condition was normal.
H	35	P-06	(A)	04/16/96	DP	/	8066:01-26	Tank condition was normal. A mass of material was observed in the annulus ventilation duct. The material appeared to be concrete. It partially blocked one duct outlet.
H	35	P-07	(A)	07/10/96	WAP	/	8098:10	Tank condition was normal.
H	35	P-08	(A)	04/16/96	DP	/	8067:01-25	Tank condition was normal.
H	35	P-09	(A)	07/10/96	WAP	/	8098:11	Tank condition was normal.
H	35	P-10	(A)	04/16/96	DP	/	8068:01-25	Tank condition was normal. Stains observed on the secondary wall were caused by the inleakage of water.
H	35	P-11	(A)	07/10/96	WAP	/	8098:12	Tank condition was normal.
H	35	P-12	(A)	04/16/96	DP	/	8069:01-25	Surface rust, water marks, water droplets, and wet steel surfaces were observed in the uppermost portion of the annulus. Investigation was undertaken to identify and eliminate the source of the water (see remark for inspection made 08/12/96 via A-04).
H	35	P-13	(A)	07/10/96	WAP	/	8098:13	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER		REMARKS	
		P	I		DP	/		
H	35	P-14	(A)	04/16/96	DP	/	8070:01-25	Tank condition was normal.
H	36			08/17/96	HELIUM	/	HE-96-018	Helium tracer test identified leak locations in the steam line between the tank 35-37 gang valves and tank 36 jet.
H	36			09/27/96	HELIUM	/	HE-96-020	Helium tracer test of the steam line between the tank 35-37 gang valves and tank 36 annulus jet was inconclusive. However, the line later passed a pneumatic pressure test.
H	36	A-01	(A)	07/10/96	WAP	/	8099:01	Tank condition was normal.
H	36	A-02	(A)	02/15/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	36	A-02	(A)	07/10/96	WAP	/	8099:02	Tank condition was normal.
H	36	A-03	(A)	02/15/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	36	A-03	(A)	07/10/96	WAP	/	8099:03	Tank condition was normal.
H	36	A-04	(A)	02/15/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	36	A-04	(A)	07/10/96	WAP	/	8099:04	Tank condition was normal.
H	36	F	(A)	09/17/96	CCTV	/	418	CCTV was used to inspect the annulus jet steam supply line. The line was blanked isolating the jet from the steam supply.
H	36	P-01	(A)	07/10/96	WAP	/	8099:05	Tank condition was normal.
H	36	P-02	(A)	07/10/96	WAP	/	8099:06	Tank condition was normal.
H	36	P-03	(A)	07/10/96	WAP	/	8099:07	Tank condition was normal.
H	36	P-04	(A)	07/10/96	WAP	/	8099:08	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
						/		
H	36	P-05	(A)	07/10/96	WAP	/	8099:09	Tank condition was normal.
H	36	P-06	(A)	06/20/96	DP	/	8090:01-25	Tank condition was normal.
H	36	P-07	(A)	07/10/96	WAP	/	8099:10	Tank condition was normal.
H	36	P-08	(A)	06/20/96	DP	/	8091:01-25	Tank condition was normal.
H	36	P-09	(A)	07/10/96	WAP	/	8099:11	Tank condition was normal. A polystyrene drinking cup was observed on the annulus floor beneath the riser.
H	36	P-10	(A)	10/03/96	DP	/	8127:01-25	Tank condition was normal. Stains and marks observed on the tank wall were caused by water which had leaked into the annulus. Stains and marks observed on the refractory pad were caused by water which had leaked into the annulus.
H	36	P-11	(A)	07/10/96	WAP	/	8099:12	Tank condition was normal.
H	36	P-12	(A)	10/09/96	DP	/	8128:01-25	Tank condition was normal. Stains and marks observed on the refractory pad were caused by water which had leaked into the annulus.
H	36	P-13	(A)	07/10/96	WAP	/	8099:13	Tank condition was normal.
H	36	P-14	(A)	10/09/96	DP	/	8129:01-25	Tank condition was normal.
H	36	G	(I)	08/11/96	CCTV	/	407	Inspection was made to determine if there was a steam leak in the jet. No leakage from the jet was detected.
H	36	G	(I)	12/12/96	CCTV	/	433	CCTV was used to investigate malfunction of the reel tape. No obstruction or unusual condition that would cause malfunction was observed.
H	37			10/22/96	HELIUM	/	HE-96-023	Helium tracer test of the steam line from the Tanks 35 - 37 gang valves to the Tank 37 annulus jet identified the leak site locations for excavation and repair.
H	37	A-01	(A)	07/10/96	WAP	/	8100:01	Tank condition was normal.
H	37	A-02	(A)	02/15/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>	
H	37	A-02 (A)	07/10/96	WAP	/	8100:02	Tank condition was normal.
H	37	A-03 (A)	02/15/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	37	A-03 (A)	07/10/96	WAP	/	8100:03	Tank condition was normal.
H	37	A-04 (A)	02/15/96	CCTV	/	367	CCTV was used to validate the deployment of the conductivity probe. The probe was properly positioned on the annulus floor.
H	37	A-04 (A)	07/10/96	WAP	/	8100:04	Tank condition was normal.
H	37	F (A)	09/17/96	CCTV	/	418	CCTV was used to inspect the annulus jet steam supply line. The line was blanked isolating the jet from the steam supply.
H	37	P-01 (A)	07/10/96	WAP	/	8100:05	Tank condition was normal.
H	37	P-02 (A)	07/10/96	WAP	/	8100:06	Tank condition was normal.
H	37	P-03 (A)	07/10/96	WAP	/	8100:07	Tank condition was normal.
H	37	P-04 (A)	07/10/96	WAP	/	8100:08	Tank condition was normal.
H	37	P-05 (A)	07/10/96	WAP	/	8100:09	Tank condition was normal.
H	37	P-06 (A)	12/05/96	DP	/	8169:01-25	Tank condition was normal.
H	37	P-07 (A)	07/10/96	WAP	/	8100:10	Tank condition was normal.
H	37	P-08 (A)	12/05/96	DP	/	8170:01-25	Tank condition was normal.
H	37	P-09 (A)	07/10/96	WAP	/	8100:11	Tank condition was normal.
H	37	P-10 (A)	12/05/96	DP	/	8171:01-25	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD			REMARKS
				IDENTIFICATION	/	NUMBER	
H	37	P-11 (A)	07/10/96	WAP	/	8100:12	Tank condition was normal.
H	37	P-12 (A)	08/13/96	CCTV	/	T001	Tank condition was normal.
H	37	P-12 (A)	12/05/96	DP	/	8172:01-25	Tank condition was normal.
H	37	P-13 (A)	07/10/96	WAP	/	8100:13	Tank condition was normal.
H	37	P-14 (A)	08/13/96	CCTV	/	T001	Tank condition was normal.
H	37	P-14 (A)	12/05/96	DP	/	8173:01-25	Tank condition was normal.
H	38	A-01 (A)	02/08/96	WAP	/	7964:01	Tank condition was normal. Stains and marks on the ventilation duct were caused by water which had leaked into the annulus.
H	38	A-02 (A)	01/10/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	38	A-02 (A)	02/08/96	WAP	/	7964:02	Tank condition was normal.
H	38	A-03 (A)	01/10/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	38	A-03 (A)	02/08/96	WAP	/	7964:03	Tank condition was normal.
H	38	A-04 (A)	01/10/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	38	A-04 (A)	02/08/96	WAP	/	7964:04	Tank condition was normal.
H	38	P-01 (A)	02/08/96	WAP	/	7964:05	Tank condition was normal.
H	38	P-02 (A)	02/08/96	WAP	/	7964:06	Tank condition was normal. Additional stains and marks on the secondary vessel wall and ventilation duct were caused by water which had leaked into the annulus.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>
H	38	P-03 (A)	02/08/96	WAP	/	7964:07
H	38	P-04 (A)	02/08/96	WAP	/	7964:08
H	38	P-05 (A)	02/08/96	WAP	/	7964:09
H	38	P-05 (A)	02/14/96	DP	/	7977:01-25
H	38	P-06 (A)	02/08/96	WAP	/	7964:10
H	38	P-06 (A)	02/14/96	DP	/	7978:01-25
H	38	P-07 (A)	02/08/96	WAP	/	7964:11
H	38	P-07 (A)	02/14/96	DP	/	7979:01-25
H	38	P-08 (A)	02/08/96	WAP	/	7964:12
H	38	P-08 (A)	02/22/96	DP	/	7980:01-25
H	38	P-09 (A)	02/08/96	WAP	/	7964:13
H	38	P-09 (A)	02/14/96	DP	/	7981:01-25
H	38	P-10 (A)	02/08/96	WAP	/	7964:14
H	38	P-11 (A)	02/08/96	WAP	/	7964:15
H	38	P-12 (A)	02/15/96	WAP	/	7991:01
H	38	P-13 (A)	02/15/96	WAP	/	7991:02

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
						/		
H	38	P-14	(A)	02/15/96	WAP	/	7991:03	Tank condition was normal.
H	38	C-01	(I)	04/03/96	CCTV	/	379	CCTV was used to document the rotation and tightening of the transfer jet in the C-01 riser. The jet was successfully rotated and the connectors were tightened.
H	38	C-01	(I)	04/09/96	CCTV	/	379	Inspection was made to leak check the transfer jet. Leakage was observed at the cam-lock for the jet steam leg.
H	38	C-01	(I)	04/12/96	CCTV	/	379	Inspection was made to leak check the transfer jet after replacing the gaskets and o-rings. A small leak was observed on the discharge side of the jet at the cam-lock.
H	38	H	(I)	03/25/96	CCTV	/	377	Inspection was made to leak check the transfer jet connections. No leak was observed.
H	38	H	(I)	03/31/96	CCTV	/	378	Inspection was made of the tank interior and waste surface due to a discrepancy in the material balance during transfer. Salt accumulation was observed on the cooling coils and tank wall. A salt mound was observed beneath the drop valve.
H	38	H	(I)	04/03/96	CCTV	/	379	Inspection was made to determine and document condition in the tank. The inspection revealed salt accumulations on cooling coils and tank wall. The waste surface was salts except for a few small pools of liquid.
H	38	H	(I)	04/08/96	CCTV	/	379	Inspection was made to leak check the transfer jet. Leakage was observed on the steam leg of the jet.
H	38	H	(I)	08/06/96	CCTV	/	409	CCTV was used to document the condition and configuration of the waste surface. The waste surface was covered almost entirely with salt crystals. Only a few pools of liquid were observed in the tank.
H	38	H	(I)	09/12/96	CCTV	/	409	CCTV inspection was made to determine and document the configuration and distribution of salt deposits in the tank.
H	38	H	(I)	11/06/96	CCTV	/	409	CCTV inspection was performed to determine and document the configuration and distribution of salt deposits in the tank.
H	39	A-01	(A)	02/08/96	WAP	/	7965:01	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		A	I		CCTV	/	367	
H	39	A-02	(A)	01/10/96				Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	39	A-02	(A)	02/08/96	WAP	/	7965:02	Tank condition was normal.
H	39	A-03	(A)	01/10/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	39	A-03	(A)	02/08/96	WAP	/	7965:03	Tank condition was normal.
H	39	A-04	(A)	01/10/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	39	A-04	(A)	02/08/96	WAP	/	7965:04	Tank condition was normal.
H	39	P-01	(A)	02/14/96	DP	/	7982:01-24	Tank condition was normal.
H	39	P-02	(A)	02/08/96	WAP	/	7965:05	Tank condition was normal.
H	39	P-03	(A)	02/14/96	DP	/	7983:01-25	Tank condition was normal.
H	39	P-04	(A)	02/08/96	WAP	/	7965:06	Tank condition was normal. Pieces of a plastic bag were on the annulus floor.
H	39	P-05	(A)	02/14/96	DP	/	7984:01-25	Tank condition was normal.
H	39	P-06	(A)	02/08/96	WAP	/	7965:07	Tank condition was normal.
H	39	P-07	(A)	02/14/96	DP	/	7985:01-25	Tank condition was normal.
H	39	P-08	(A)	02/14/96	DP	/	7986:01-25	Tank condition was normal.
H	39	P-09	(A)	02/08/96	WAP	/	7965:08	Tank condition was normal.
H	39	P-10	(A)	02/08/96	WAP	/	7965:09	Tank condition was normal.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD</u>		<u>IDENTIFICATION / NUMBER</u>	<u>REMARKS</u>
H	39	P-11 (A)	02/08/96	WAP	/	7965:10	Tank condition was normal.
H	39	P-12 (A)	02/08/96	WAP	/	7965:11	Tank condition was normal.
H	39	P-13 (A)	02/15/96	WAP	/	7992:01	Tank condition was normal.
H	39	P-14 (A)	02/15/96	WAP	/	7992:02	Tank condition was normal.
H	39	H (I)	09/25/96	CCTV	/	420	CCTV was used to leak check the transfer jet after it was rotated in the C-01 riser. The jet was leak free.
H	40	A-01 (A)	01/15/96	WAP	/	7945: 01	Tank condition was normal.
H	40	A-01 (A)	10/16/96	UT	/	UT-96-014	Baseline thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle.
H	40	A-02 (A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	40	A-02 (A)	01/15/96	WAP	/	7945:02	Tank condition was normal.
H	40	A-03 (A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	40	A-03 (A)	08/13/96	WAP	/	8121:01	Tank condition was normal.
H	40	A-03 (A)	08/28/96	UT	/	UT-96-010	Baseline thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle.
H	40	A-04 (A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	40	A-04 (A)	01/15/96	WAP	/	7945:03	Tank condition was normal.
H	40	P-01 (A)	02/22/96	DP	/	8001:01-25	Tank condition was normal.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>	
H	40	P-02 (A)	01/15/96	WAP	/	7945:04	Tank condition was normal.
H	40	P-03 (A)	02/22/96	DP	/	8002:01-25	Tank condition was normal.
H	40	P-04 (A)	01/15/96	WAP	/	7945:05	Tank condition was normal.
H	40	P-05 (A)	01/15/96	WAP	/	7945:06	Tank condition was normal.
H	40	P-05 (A)	10/17/96	UT	/	UT-96-015	Baseline thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle.
H	40	P-06 (A)	01/15/96	WAP	/	7945:07	Tank condition was normal.
H	40	P-07 (A)	02/22/96	DP	/	8003:01-25	Tank condition was normal.
H	40	P-08 (A)	01/15/96	WAP	/	7945:08	Tank condition was normal.
H	40	P-09 (A)	02/22/96	DP	/	8004:01-25	Tank condition was normal.
H	40	P-10 (A)	01/15/96	WAP	/	7945:09	Tank condition was normal.
H	40	P-11 (A)	01/15/96	WAP	/	7945:10	Tank condition was normal.
H	40	P-12 (A)	01/15/96	WAP	/	7945:11	Tank condition was normal.
H	40	P-12 (A)	10/16/96	UT	/	UT-96-013	Baseline thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle.
H	40	P-13 (A)	01/15/96	WAP	/	7945:12	Tank condition was normal.
H	40	P-14 (A)	01/15/96	WAP	/	7945:13	Tank condition was normal.
H	41	A-01 (A)	01/15/96	WAP	/	7946:01	Tank condition was normal.
H	41	A-02 (A)	01/15/96	WAP	/	7946:02	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		A	I		CCTV	/	367	
H	41	A-02	(A)	01/25/96	WAP	/	7946:03	Tank condition was normal.
H	41	A-03	(A)	01/25/96	WAP	/	7946:04	Tank condition was normal.
H	41	A-03	(A)	01/25/96	WAP	/	7946:05	Tank condition was normal.
H	41	A-04	(A)	01/25/96	WAP	/	7946:06	Tank condition was normal.
H	41	A-04	(A)	01/25/96	WAP	/	7946:07	Tank condition was normal.
H	41	P-01	(A)	01/15/96	WAP	/	7946:08	Tank condition was normal.
H	41	P-02	(A)	01/15/96	WAP	/	7946:09	Tank condition was normal.
H	41	P-03	(A)	01/15/96	WAP	/	7946:10	Tank condition was normal.
H	41	P-04	(A)	01/15/96	WAP	/	7946:11	Tank condition was normal.
H	41	P-05	(A)	02/08/96	DP	/	7972:01-25	Tank condition was normal.
H	41	P-06	(A)	02/08/96	DP	/	7973:01-25	Tank condition was normal.
H	41	P-07	(A)	03/04/96	DP	/	8015:01-25	Tank condition was normal.
H	41	P-08	(A)	02/08/96	DP	/	7974:01-25	Tank condition was normal.
H	41	P-09	(A)	02/08/96	DP	/	7975:01-25	Tank condition was normal.
H	41	P-10	(A)	01/15/96	WAP	/	7946:12	Tank condition was normal.
H	41	P-11	(A)	01/15/96	WAP	/	7946:13	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS
				IDENTIFICATION	NUMBER	
H	41	P-12 (A)	01/15/96	WAP /	7946:11	Tank condition was normal.
H	41	P-13 (A)	01/15/96	WAP /	7946:12	Tank condition was normal.
H	41	P-14 (A)	01/15/96	WAP /	7946:13	Tank condition was normal.
H	41	B-03 (I)	07/01/96	CCTV /	401	CCTV was used to access salt dissolution and to document the condition of the tank interior after liquid was transferred from the tank. Salt deposits were observed throughout the tank. Salt mounding was observed around cooling coils. Waste surface was irregular in the tank. Salt crust had broken up and fallen as liquid level was lowered.
H	41	C-01 (I)	01/23/96	CCTV /	369	Inspection was made to document condition of the transfer jet and determine if there was sufficient space for the installation of a tube bundle. No unusual condition was observed.
H	41	C-01 (I)	05/02/96	CCTV /	386	CCTV was used to document the jet condition. Inspection revealed that the jaws on the connector head were not completely in the open position. The drive shaft nut was approximately one inch from the fully open position. One shaft, from jaw to the top of the connector head, had a broken universal joint pin. No other unusual condition was observed.
H	41	E-01 (I)	04/28/96	CCTV /	386	CCTV was used to support an unsuccessful attempt to remove the transfer jet. Salt crystal deposits were observed throughout tank.
H	41	E-01 (I)	05/31/96	CCTV /	393	CCTV was used to assist in cutting linkage on transfer jet to permit the connector head to release from the nozzles. The linkage was successfully cut and a test lift was performed to insure the jet was free and could be removed.
H	41	E-01 (I)	06/19/96	CCTV /	393	CCTV was used to facilitate evaluate and document remote operations during the removal and replacement of the transfer jet in the C-01 riser.
H	41	E-01 (I)	06/21/96	CCTV /	393	CCTV was used to leak check the C-01 riser transfer jet. The jet was leak free.
H	41	E-01 (I)	06/28/96	CCTV /	401	CCTV was used to document the waste surface in Tank 41 during salt dissolution. After the transfer of 12 inches of waste, the tank surface was irregular.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
						/		
H	41	E-01	(I)	07/09/96	CCTV	/	401	CCTV was used to document surface conditions after addition of 16,720 gallons of inhibited water. Inspection verified that the addition had dissolved the salt layer at the surface. The only visible salt was attached to the cooling coils above the liquid surface.
H	42	A-01	(A)	01/15/96	WAP	/	7947:01	Tank condition was normal.
H	42	A-01	(A)	03/05/96	UT	/	UT-96-006	Baseline thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle.
H	42	A-02	(A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	42	A-02	(A)	01/15/96	WAP	/	7947:02	Tank condition was normal.
H	42	A-03	(A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	42	A-03	(A)	01/15/96	WAP	/	7947:03	Tank condition was normal.
H	42	A-03	(A)	04/10/96	UT	/	UT-96-007	Baseline thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle.
H	42	A-04	(A)	01/15/96	WAP	/	7947:04	Tank condition was normal.
H	42	A-04	(A)	01/25/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	42	P-01	(A)	01/15/96	WAP	/	7947:05	Tank condition was normal.
H	42	P-02	(A)	01/15/96	WAP	/	7947:06	Tank condition was normal.
H	42	P-03	(A)	01/15/96	WAP	/	7947:07	Tank condition was normal.
H	42	P-04	(A)	01/15/96	WAP	/	7947:14	Tank condition was normal.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>
H	42	P-04 (A)	02/22/96	DP /	7998:01-25	Tank condition was normal.
H	42	P-05 (A)	02/22/96	DP /	7997:01-24	Tank condition was normal.
H	42	P-05 (A)	04/12/96	UT /	UT-96-008	Baseline thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle.
H	42	P-06 (A)	02/22/96	DP /	7999:01-25	Tank condition was normal.
H	42	P-07 (A)	01/15/96	WAP /	7947:08	Tank condition was normal.
H	42	P-08 (A)	02/22/96	DP /	8000:01-25	Tank condition was normal. An absorbent swipe was observed on the annulus floor.
H	42	P-09 (A)	08/13/96	WAP /	8122:01	Tank condition was normal. Stains on the secondary wall were caused by water which had leaked into the annulus.
H	42	P-10 (A)	01/15/96	WAP /	7947:09	Tank condition was normal.
H	42	P-11 (A)	01/15/96	WAP /	7947:10	Tank condition was normal.
H	42	P-12 (A)	01/15/96	WAP /	7947:11	Tank condition was normal.
H	42	P-12 (A)	02/29/96	UT /	UT-96-005	Baseline thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle.
H	42	P-13 (A)	01/15/96	WAP /	7947:12	Tank condition was normal.
H	42	P-14 (A)	01/15/96	WAP /	7947:13	Tank condition was normal.
H	43	LDB-07	02/11/96	HELIUM /	HE-96-009	A helium tracer test was performed to verify integrity of the overheads tank transfer line from the 242-16H evaporator to Tank 43. The test was inconclusive.
H	43	LDB-07	02/12/96	HELIUM /	HE-96-010	A helium tracer test was performed to verify integrity of the overheads tank transfer line from the 242-16H evaporator to Tank 43. The test was inconclusive.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS
				IDENTIFICATION	NUMBER	
H	43	LDB-07	02/13/96	HELIUM	/	HE-96-011 A helium tracer test was performed on the overheads tank transfer line from the 242-16H evaporator to Tank 43. The test revealed the line was acceptable for service.
H	43	LDB-07	09/03/96	HELIUM	/	HE-96-018 A helium tracer test was performed to leak check the overheads tank transfer line from the 242-16H evaporator to Tank 43. The test was inconclusive.
H	43	LDB-07	09/04/96	HELIUM	/	HE-96-019 A helium tracer test was performed on the overheads tank transfer line from the 242-16H evaporator to Tank 43. The test revealed the line was acceptable for service.
H	43	A-01 (A)	03/04/96	WAP	/	8019:01 Tank condition was normal.
H	43	A-02 (A)	03/04/96	WAP	/	8019:02 Tank condition was normal.
H	43	A-02 (A)	08/13/96	CCTV	/	367 CCTV was used to document the position of the conductivity probe. The probe was properly positioned on the annulus floor.
H	43	A-03 (A)	01/10/96	CCTV	/	367 Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	43	A-03 (A)	03/04/96	WAP	/	8019:03 Tank condition was normal.
H	43	A-04 (A)	01/10/96	CCTV	/	367 Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	43	A-04 (A)	03/04/96	WAP	/	8019:04 Tank condition was normal.
H	43	P-01 (A)	03/04/96	WAP	/	8019:05 Tank condition was normal.
H	43	P-02 (A)	03/04/96	WAP	/	8019:06 Tank condition was normal. Stains on the annulus floor were caused by water that leaked into the annulus.
H	43	P-03 (A)	03/04/96	WAP	/	8019:07 Tank condition was normal. Stains on the annulus floor were caused by water that leaked into the annulus.
H	43	P-04 (A)	03/04/96	WAP	/	8019:08 Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD IDENTIFICATION / NUMBER		REMARKS	
				DP	/		
H	43	P-05 (A)	02/20/96	DP	/	7987:01-25	Tank condition was normal.
H	43	P-06 (A)	02/20/96	DP	/	7988:01-25	Tank condition was normal. Stains and marks on the secondary vessel wall were caused by water which had leaked into the annulus.
H	43	P-07 (A)	02/20/96	DP	/	7989:01-25	Tank condition was normal.
H	43	P-08 (A)	02/15/96	DP	/	7990:01-25	Tank condition was normal. Stains and marks on the secondary vessel wall were caused by water which had leaked into the annulus.
H	43	P-09 (A)	03/04/96	DP	/	8017:01-25	Tank condition was normal.
H	43	P-10 (A)	03/04/96	WAP	/	8019:09	Tank condition was normal.
H	43	P-11 (A)	03/04/96	WAP	/	8019:10	Tank condition was normal.
H	43	P-12 (A)	03/04/96	WAP	/	8019:11	Tank condition was normal.
H	43	P-13 (A)	03/04/96	WAP	/	8019:12	Tank condition was normal.
H	43	P-14 (A)	03/04/96	WAP	/	8019:13	Tank condition was normal.
H	43	H (I)	05/01/96	CCTV	/	385	Inspection was made to investigate cause of inconsistent liquid level measurements and determine the length of the downcomer. An organic layer was observed on the surface of the waste. The reel tape bob was coated with an organic film causing the bob to immerse to different depth and provide inconsistent measurements. The downcomer could not be viewed from the H-riser.
H	43	H (I)	05/07/96	CCTV	/	385	Inspections was made to monitor the tank during transfer from Tank 42 and from DWPF. The presence, quantity, and appearance of the organic film and the adverse effect of the organic layer on reel tape operation was documented on videotape.
H	43	H (I)	05/09/96	CCTV	/	385	The reel tape flush was successful. The reel tape operation was erratic due to the organic layer on the waste surface.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
				CCTV	/	385	
H	43	H (I)	05/13/96	CCTV	/	385	CCTV revealed some organic substances on the waste surface. The bottom of the downcomer was not visible; it was immersed in the waste.
H	43	H (I)	05/31/96	CCTV	/	385	Some organics were observed on waste surface. Waste surface was uniformly leveled throughout the tank. Reel tape bob fluctuation was +/- one inch.
H	43	H (I)	07/19/96	CCTV	/	385	CCTV was used to document reel tape operation and surface conditions. Inspection revealed no foam or solids on the waste surface. Some organics were observed floating on the liquid surface. The surface of the cooling coils and the tank walls that had been immersed appear to be coated with an organic film. Reel tape appears to be operating normally.
F	44	A-01 (A)	06/26/96	WAP	/	8092:01	Tank condition was normal.
F	44	A-02 (A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	44	A-02 (A)	06/26/96	WAP	/	8092:02	Tank condition was normal.
F	44	A-03 (A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	44	A-03 (A)	06/26/96	WAP	/	8092:03	Tank condition was normal.
F	44	A-04 (A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	44	A-04 (A)	06/26/96	WAP	/	8092:04	Tank condition was normal.
F	44	P-01 (A)	05/16/96	CCTV	/	396	Inspection revealed space between the secondary vessel wall and the cover plate. Rainwater that leaked into the annulus via this space was the source of stains observed on the secondary vessel wall when inspected on 4/24/96.
F	44	P-01 (A)	06/26/96	WAP	/	8092:05	Tank condition was normal.
F	44	P-02 (A)	06/26/96	WAP	/	8092:06	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD			REMARKS
				IDENTIFICATION	/	NUMBER	
F	44	P-03 (A)	06/26/96	WAP	/	8092:07	Tank condition was normal.
F	44	P-04 (A)	06/26/96	WAP	/	8092:08	Tank condition was normal.
F	44	P-05 (A)	06/26/96	WAP	/	8092:09	Tank condition was normal.
F	44	P-06 (A)	06/26/96	WAP	/	8092:10	Tank condition was normal.
F	44	P-07 (A)	06/26/96	WAP	/	8092:11	Tank condition was normal.
F	44	P-08 (A)	06/26/96	WAP	/	8092:12	Tank condition was normal.
F	44	P-09 (A)	06/26/96	WAP	/	8092:13	Tank condition was normal.
F	44	P-10 (A)	04/02/96	DP	/	8027:01-25	Tank condition was normal.
F	44	P-11 (A)	04/02/96	DP	/	8028:01-25	Tank condition was normal. Stains have increased on the annulus floor due to rainwater inleakage via the riser.
F	44	P-12 (A)	04/02/96	DP	/	8029:01-29	Tank condition was normal.
F	44	P-13 (A)	04/02/96	DP	/	8030:01-26	Tank condition was normal.
F	44	P-14 (A)	04/09/96	DP	/	8031:01-25	Tank condition was normal.
F	45	A-01 (A)	06/26/96	WAP	/	8093:01	Tank condition was normal. Stains and marks on the tank wall, secondary vessel wall, and top of the ventilation duct were caused by water which had leaked into the annulus.
F	45	A-02 (A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	45	A-02 (A)	06/26/96	WAP	/	8093:02	Tank condition was normal. Stains and marks on the tank wall, secondary vessel wall, and top of the ventilation duct were caused by water which had leaked into the annulus.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		A	I		CCTV	/	367	
F	45	A-03	(A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	45	A-03	(A)	04/23/96	CCTV	/	384	Tank condition was normal. Stains on primary and secondary walls were caused by water inleakage.
F	45	A-03	(A)	06/26/96	WAP	/	8093:03	Tank condition was normal. Stains and marks on the secondary vessel wall were caused by water which had leaked into the annulus.
F	45	A-04	(A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	45	A-04	(A)	04/23/96	CCTV	/	384	CCTV was used to validate the repositioning of the conductivity probe. The probe was properly positioned on the annulus floor.
F	45	A-04	(A)	06/26/96	WAP	/	8093:04	Tank condition was normal. Stains and marks on the tank wall, secondary vessel wall, and top of the ventilation duct were caused by water which had leaked into the annulus.
F	45	P-01	(A)	06/26/96	WAP	/	8093:05	Tank condition was normal. Stains and marks on the tank wall, secondary vessel wall, and top of the ventilation duct were caused by water which had leaked into the annulus.
F	45	P-02	(A)	06/26/96	WAP	/	8093:06	Tank condition was normal. Stains and marks on the tank wall, secondary vessel wall, and top of the ventilation duct were caused by water which had leaked into the annulus.
F	45	P-03	(A)	06/26/96	WAP	/	8093:07	Tank condition was normal. Stains and marks on the tank wall were caused by water which had leaked into the annulus.
F	45	P-04	(A)	06/26/96	WAP	/	8093:08	Tank condition was normal. Stains and marks on the tank wall, secondary vessel wall, and top of the ventilation duct were caused by water which had leaked into the annulus.
F	45	P-05	(A)	06/26/96	WAP	/	8093:09	Tank condition was normal. Stains and marks on the annulus floor and top of the ventilation duct were caused by water which had leaked into the annulus.
F	45	P-06	(A)	06/26/96	WAP	/	8093:10	Tank condition was normal. Stains and marks on the annulus floor and top of the ventilation duct were caused by water which had leaked into the annulus.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		P	0		WAP	/	8093:11	
F	45	P-07	(A)	06/26/96	WAP	/	8093:11	Tank condition was normal. Stains and marks on the secondary vessel wall were caused by water which had leaked into the annulus.
F	45	P-08	(A)	06/26/96	WAP	/	8093:12	Tank condition was normal. Stains and marks on the secondary vessel wall were caused by water which had leaked into the annulus.
F	45	P-09	(A)	06/26/96	WAP	/	8093:13	Tank condition was normal. Stains and marks on the tank wall, secondary vessel wall, and top of the ventilation duct were caused by water which had leaked into the annulus.
F	45	P-10	(A)	04/09/96	DP	/	8035:01-25	Tank condition was normal. Stains and deposits were observed on the primary tank, secondary vessel walls, and annulus floor.
F	45	P-10	(A)	04/23/96	CCTV	/	389	Inspection was made to determine the origin of the stains and marks observed on the primary and secondary walls on 4-9-96. The stains and marks were caused by water leaking into the annulus around the cover plates.
F	45	P-11	(A)	04/09/96	DP	/	8032:01-25	Tank condition was normal.
F	45	P-12	(A)	04/11/96	DP	/	8055:01-25	Tank condition was normal. Deposits on the primary tank wall and stains and marks on the secondary vessel wall were caused by water leaking into the annulus around the cover plates.
F	45	P-12	(A)	05/16/96	CCTV	/	396	Inspection revealed space between the secondary vessel wall and the cover plate. Rainwater that leaked into the annulus via this space was the source of stains observed on the secondary vessel wall when inspected on 4/24/96.
F	45	P-13	(A)	04/09/96	DP	/	8033:01-25	Tank condition was normal. Stains and marks on the primary and secondary vessel walls were caused by water which had leaked into the annulus.
F	45	P-13	(A)	04/23/96	CCTV	/	384	Inspection was made to determine the entry point for water that caused the stains and marks on the primary and secondary walls on 4-9-96. The stains and marks were caused by water leaking into the annulus around the cover plates.
F	45	P-14	(A)	04/09/96	DP	/	8034:01-25	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		H	(I)		CCTV	/	399	
F	45		H (I)	06/13/96	CCTV	/	399	CCTV was used to determine if the reel tape was contacting liquid or salt crystals. No liquid was observed. The surface was uneven throughout tank.
F	46	A-01	(A)	06/26/96	WAP	/	8094:01	Tank condition was normal.
F	46	A-02	(A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	46	A-02	(A)	06/26/96	WAP	/	8094:02	Tank condition was normal.
F	46	A-03	(A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	46	A-03	(A)	06/26/96	WAP	/	8094:03	Tank condition was normal.
F	46	A-04	(A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	46	A-04	(A)	06/26/96	WAP	/	8094:04	Tank condition was normal.
F	46	P-01	(A)	06/26/96	WAP	/	8094:05	Tank condition was normal.
F	46	P-02	(A)	06/26/96	WAP	/	8094:06	Tank condition was normal.
F	46	P-03	(A)	06/26/96	WAP	/	8094:07	Tank condition was normal.
F	46	P-04	(A)	06/26/96	WAP	/	8094:08	Tank condition was normal.
F	46	P-05	(A)	06/26/96	WAP	/	8094:09	Tank condition was normal.
F	46	P-06	(A)	06/26/96	WAP	/	8094:10	Tank condition was normal.
F	46	P-07	(A)	06/26/96	WAP	/	8094:11	Tank condition was normal.
F	46	P-08	(A)	06/26/96	WAP	/	8094:12	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD IDENTIFICATION / NUMBER		REMARKS	
				WAP	/		
F	46	P-09 (A)	06/26/96	WAP	/	8094:13	Tank condition was normal.
F	46	P-10 (A)	04/10/96	DP	/	8044:01-25	Tank condition was normal.
F	46	P-10 (A)	05/16/96	CCTV	/	396	Inspection revealed space between the secondary vessel wall and the cover plate. Rainwater that leaked into the annulus via this space was the source of stains observed on the secondary vessel wall when inspected on 4/24/96.
F	46	P-11 (A)	04/10/96	DP	/	8036:01-25	Tank condition was normal. Stains and marks on the annulus floor were caused by the inleakage of water.
F	46	P-12 (A)	04/10/96	DP	/	8037:01-25	Tank condition was normal.
F	46	P-13 (A)	04/10/96	DP	/	8038:01-25	Tank condition was normal. Stains and marks on the secondary vessel wall, ventilation duct and the annulus floor were caused by the inleakage of water.
F	46	P-14 (A)	04/10/96	DP	/	8039:01-25	Tank condition was normal. Stains and marks observed on the annulus floor were caused by the inleakage of water.
F	47	A-01 (A)	07/11/96	WAP	/	8101:01	Tank condition was normal.
F	47	A-02 (A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	47	A-02 (A)	07/11/96	WAP	/	8101:02	Tank condition was normal.
F	47	A-03 (A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	47	A-03 (A)	07/11/96	WAP	/	8101:03	Tank condition was normal.
F	47	A-04 (A)	01/15/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
F	47	A-04 (A)	07/11/96	WAP	/	8101:04	Tank condition was normal. A riser plug gasket was observed on top of the ventilation duct beneath the riser.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		P	A		WAP	/	8101:05	
F	47	P-01	(A)	07/11/96	WAP	/	8101:05	Tank condition was normal.
F	47	P-02	(A)	07/11/96	WAP	/	8101:06	Tank condition was normal.
F	47	P-03	(A)	07/11/96	WAP	/	8101:07	Tank condition was normal.
F	47	P-04	(A)	07/11/96	WAP	/	8101:08	Tank condition was normal.
F	47	P-05	(A)	07/11/96	WAP	/	8101:09	Tank condition was normal. Stains on the annulus floor had increased due to the redistribution of chromate residues from cooling water leakage into the annulus that occurred in the past. Chromated cooling water to the leaking coils had been valved off.
F	47	P-06	(A)	07/11/96	WAP	/	8101:10	Tank condition was normal. Stains on the annulus floor had increased due to the redistribution of chromate residues from cooling water leakage into the annulus that occurred in the past. Chromated cooling water to the leaking coils had been valved off.
F	47	P-07	(A)	07/11/96	WAP	/	8101:11	Tank condition was normal.
F	47	P-08	(A)	07/11/96	WAP	/	8101:12	Tank condition was normal.
F	47	P-09	(A)	07/11/96	WAP	/	8101:13	Tank condition was normal.
F	47	P-10	(A)	04/10/96	DP	/	8040:01-25	Tank condition was normal.
F	47	P-10	(A)	05/16/96	CCTV	/	396	Inspection revealed space between the secondary vessel wall and the cover plate. Rainwater that leaked into the annulus via this space was the source of stains observed on the secondary vessel wall when inspected on 4/24/96.
F	47	P-11	(A)	04/10/96	DP	/	8041:01-25	Tank condition was normal.
F	47	P-12	(A)	04/10/96	DP	/	8042:01-25	Tank condition was normal.
F	47	P-13	(A)	10/24/96	DP	/	8148:01-25	Tank condition was normal.
F	47	P-14	(A)	04/10/96	DP	/	8043:01-25	Tank condition was normal.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>
H	48	LDB-12	05/30/96	HELIUM	/	HE-96-015
						A helium tracer test was preformed on the precipitate return line from the Filter Cell #2 to Tank 48. The test was inconclusive.
H	48	A-01 (A)	01/23/96	WAP	/	7953:01
						Tank condition was normal.
H	48	A-02 (A)	01/23/96	WAP	/	7953:02
						Tank condition was normal.
H	48	A-02 (A)	01/25/96	CCTV	/	367
						Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	48	A-03 (A)	01/23/96	WAP	/	7953:03
						Tank condition was normal.
H	48	A-03 (A)	01/25/96	CCTV	/	367
						Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	48	A-04 (A)	01/23/96	WAP	/	7953:04
						Tank condition was normal.
H	48	A-04 (A)	01/25/96	CCTV	/	367
						Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	48	P-01 (A)	01/23/96	WAP	/	7953:05
						Tank condition was normal.
H	48	P-02 (A)	08/19/96	WAP	/	8123:01
						Tank condition was normal. The plastic bag observed atop the ventilation duct in 1993 had relocated to the annulus floor.
H	48	P-03 (A)	01/23/96	WAP	/	7953:06
						Tank condition was normal.
H	48	P-03 (A)	01/25/96	UT	/	UT-96-003
						Thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle. Analysis and comparison of the data revealed no detectable wall loss since the previous examination. No pitting or other degradation of the wall was detected.
H	48	P-04 (A)	01/23/96	WAP	/	7953:07
						Tank condition was normal.
H	48	P-05 (A)	01/23/96	WAP	/	7953:08
						Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		P	0		WAP	/	7953:09	
H	48	P-06	(A)	01/23/96	WAP	/	7953:09	Tank condition was normal.
H	48	P-06	(A)	01/30/96	UT	/	UT-96-004	Thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle. Analysis and comparison of the data revealed no detectable wall loss since the previous examination. No pitting or other degradation of the wall was detected.
H	48	P-07	(A)	08/19/96	WAP	/	8123:02	Tank condition was normal. Stains on the secondary wall were caused by water which had leaked into the annulus.
H	48	P-08	(A)	01/23/96	WAP	/	7953:10	Tank condition was normal.
H	48	P-09	(A)	08/19/96	WAP	/	8123:03	Tank condition was normal.
H	48	P-10	(A)	01/22/96	UT	/	UT-96-002	Thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle. Analysis and comparison of the data revealed no detectable wall loss since the previous examination. No pitting or other degradation of the wall was detected.
H	48	P-10	(A)	01/23/96	WAP	/	7953:11	Tank condition was normal.
H	48	P-11	(A)	01/23/96	DP	/	7955:01-25	Tank condition was normal.
H	48	P-12	(A)	12/31/96		/		No inspection made. Access port occupied by installed equipment during 1996.
H	48	P-13	(A)	01/16/96	UT	/	UT-96-001	Thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle. Analysis and comparison of the data revealed no detectable wall loss since the previous examination. No pitting or other degradation of the wall was detected.
H	48	P-13	(A)	02/01/96	DP	/	7962:01-25	Tank condition was normal. Two absorbent swipes were observed on the annulus floor. One swipe was beneath the P-12 riser and one was beneath the P-13 riser.
H	48	P-14	(A)	01/23/96	DP	/	7956:01-25	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER		REMARKS	
						/		
H	48	B-02	(I)	01/27/96	CCTV	/	371	Inspection was made to document waste surface condition. A thin layer of foam was observed on the waste surface.
H	48	B-02	(I)	08/19/96	CCTV	/	412	CCTV was used to document annual inspection of the nitrogen nozzles in the B-2 and C-3 risers. The nozzles were normal.
H	49	A-01	(A)	02/08/96	WAP	/	7976:01	Tank condition was normal. Stains and marks on the tank wall were caused by water which had leaked into the annulus.
H	49	A-02	(A)	01/10/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	49	A-02	(A)	02/13/96	WAP	/	7976:02	Tank condition was normal.
H	49	A-03	(A)	01/10/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	49	A-03	(A)	02/08/96	WAP	/	7976:03	Tank condition was normal.
H	49	A-04	(A)	01/10/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	49	A-04	(A)	02/08/96	WAP	/	7976:04	Tank condition was normal.
H	49	G	(A)	04/18/96	CCTV	/	383	Inspection of the slurry pump in the V-1 riser was made to verify the bearing water was drained from the pump and to document quantity and location of waste deposits to be flushed from the pump prior to removing the pump from the tank.
H	49	P-01	(A)	02/08/96	WAP	/	7976:05	Tank condition was normal.
H	49	P-02	(A)	02/08/96	WAP	/	7976:06	Tank condition was normal.
H	49	P-03	(A)	02/08/96	WAP	/	7976:07	Tank condition was normal.
H	49	P-04	(A)	02/08/96	WAP	/	7976:08	Tank condition was normal.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>			<u>REMARKS</u>
H	49	P-05 (A)	02/13/96	WAP	/	7976:09	Tank condition was normal.
H	49	P-06 (A)	02/08/96	WAP	/	7976:10	Tank condition was normal.
H	49	P-07 (A)	02/08/96	WAP	/	7976:11	Tank condition was normal.
H	49	P-08 (A)	02/08/96	WAP	/	7976:12	Tank condition was normal.
H	49	P-09 (A)	02/13/96	WAP	/	7976:13	Tank condition was normal.
H	49	P-10 (A)	02/01/96	DP	/	7961:01-25	Tank condition was normal.
H	49	P-11 (A)	02/01/96	DP	/	7963:01-25	Tank condition was normal.
H	49	P-12 (A)	01/31/96	DP	/	7958:01-25	Tank condition was normal.
H	49	P-13 (A)	01/30/96	DP	/	7959:01-25	Tank condition was normal.
H	49	P-14 (A)	01/30/96	DP	/	7960:01-25	Tank condition was normal.
H	49	C-03 (I)	02/08/96	CCTV	/	301	Inspection was made to document condition of the nitrogen nozzle. Nozzle condition had not changed; no evidence of degradation was observed.
H	49	G (I)	02/08/96	CCTV	/	301	Inspection was made to document condition of the nitrogen nozzle. Nozzle condition had not changed; no evidence of degradation was observed.
H	50	A-01 (A)	01/11/96	WAP	/	7954:01	Tank condition was normal.
H	50	A-02 (A)	01/10/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	50	A-02 (A)	01/11/96	WAP	/	7954:02	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
		NUMBER	TYPE		METHOD	IDENTIFICATION	NUMBER	
H	50	A-02	(A)	11/09/96	CCTV	/	429	CCTV was used to investigate the source of inleakage into the annulus. Groundwater had leaked into the annulus where the line designated "spare" penetrates the annulus.
H	50	A-03	(A)	01/11/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	50	A-03	(A)	01/11/96	WAP	/	7954:03	Tank condition was normal.
H	50	A-04	(A)	01/11/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	50	A-04	(A)	01/11/96	WAP	/	7954:04	Tank condition was normal.
H	50	P-01	(A)	01/11/96	WAP	/	7954:05	Tank condition was normal.
H	50	P-02	(A)	01/11/96	WAP	/	7954:06	Tank condition was normal.
H	50	P-03	(A)	01/11/96	WAP	/	7954:07	Tank condition was normal.
H	50	P-04	(A)	01/11/96	WAP	/	7954:08	Tank condition was normal.
H	50	P-05	(A)	01/11/96	WAP	/	7954:09	Tank condition was normal.
H	50	P-06	(A)	01/11/96	WAP	/	7954:10	Tank condition was normal.
H	50	P-07	(A)	01/11/96	WAP	/	7954:11	Tank condition was normal.
H	50	P-08	(A)	01/11/96	WAP	/	7954:12	Tank condition was normal.
H	50	P-09	(A)	01/11/96	WAP	/	7954:13	Tank condition was normal.
H	50	P-10	(A)	01/17/96	DP	/	7952:01-25	Tank condition was normal.
H	50	P-11	(A)	01/17/96	DP	/	7951:01-25	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD			REMARKS
				IDENTIFICATION / NUMBER	/		
H	50	P-12 (A)	01/15/96	DP	/	7950:01-25	Tank condition was normal.
H	50	P-13 (A)	01/15/96	DP	/	7949:01-25	Tank condition was normal.
H	50	P-14 (A)	01/15/96	DP	/	7948:01-25	Tank condition was normal.
H	50	H (I)	09/11/96	CCTV	/	417	CCTV was used to investigate a discrepancy in waste level measurements and document the surface of the waste. Inspection revealed no solids, foam, or any unusual condition.
H	51	A-01 (A)	02/08/96	WAP	/	7968:01	Tank condition was normal.
H	51	A-02 (A)	01/29/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	51	A-02 (A)	02/08/96	WAP	/	7968:02	Tank condition was normal.
H	51	A-03 (A)	01/29/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	51	A-03 (A)	02/08/96	WAP	/	7968:03	Tank condition was normal.
H	51	A-04 (A)	01/29/96	CCTV	/	367	Inspection was made to validate deployment of the conductivity probe. The conductivity probe was properly deployed on the annulus floor.
H	51	A-04 (A)	02/08/96	WAP	/	7968:04	Tank condition was normal.
H	51	P-01 (A)	02/08/96	WAP	/	7968:05	Tank condition was normal.
H	51	P-02 (A)	02/08/96	WAP	/	7968:06	Tank condition was normal.
H	51	P-03 (A)	02/08/96	WAP	/	7968:07	Tank condition was normal.
H	51	P-03 (A)	10/24/96	UT	/	UT-96-016	Baseline thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>	
H	51	P-04 (A)	02/08/96	WAP	/	7968:08	Tank condition was normal.
H	51	P-05 (A)	02/08/96	WAP	/	7968:09	Tank condition was normal.
H	51	P-06 (A)	02/08/96	WAP	/	7968:10	Tank condition was normal.
H	51	P-06 (A)	05/17/96	UT	/	UT-96-009	Baseline thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle.
H	51	P-07 (A)	02/08/96	WAP	/	7968:11	Tank condition was normal.
H	51	P-07 (A)	04/23/96	WAP	/	7968:11	Tank condition was normal.
H	51	P-08 (A)	02/08/96	WAP	/	7968:12	Tank condition was normal.
H	51	P-09 (A)	02/08/96	WAP	/	7968:13	Tank condition was normal.
H	51	P-10 (A)	02/08/96	DP	/	7969:01-25	Tank condition was normal.
H	51	P-10 (A)	09/26/96	UT	/	UT-96-012	Baseline thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle.
H	51	P-11 (A)	02/08/96	DP	/	7970:01-23	Tank condition was normal. Photographic flash tube on annulus floor became disconnected from photographic equipment during inspection.
H	51	P-12 (A)	02/08/96	DP	/	7971:01-25	Tank condition was normal. A piece of tape was observed on the annulus floor. The duct tape was first observed on the annulus floor on 2/86.
H	51	P-13 (A)	02/08/96	DP	/	7966:01-25	Tank condition was normal.
H	51	P-13 (A)	09/18/96	UT	/	UT-96-011	Baseline thickness mapping of the tank wall was performed on a vertical strip six inches wide from the top knuckle to the bottom knuckle.
H	51	P-14 (A)	02/08/96	DP	/	7967:01-25	Tank condition was normal.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)		DATE	INSPECTION METHOD IDENTIFICATION / NUMBER		REMARKS	
		C	I		CCTV	/		
H	51	C-01	(I)	05/20/96	CCTV	/	390	Inspection was made to document conditions in the C-1 riser spray chamber and of the conductivity probe. No unusual condition was observed in the spray chamber. Inspection revealed solids had accumulated on the conductivity probe.
H	CCWS (241-49H)			01/03/96	HELIUM	/	HE-96-001	Helium tracer test was performed on the 241-49H chromated cooling water system. The test was inconclusive.
H	CCWS (241-49H)			01/04/96	HELIUM	/	HE-96-002	Helium tracer test was performed on the 241-49H chromated cooling water system. The test was inconclusive.
H	CCWS (241-49H)			01/05/96	HELIUM	/	HE-96-003	Helium tracer test was performed on the 241-49H chromated cooling water system. The test was inconclusive.
H	CCWS (241-49H)			01/06/96	HELIUM	/	HE-96-004	Helium tracer test was performed on the 241-49H chromated cooling water system. A leaksite was located near HPP-05.
H	CCWS (241-49H)			01/16/96	HELIUM	/	HE-96-005	Helium tracer test was performed on the 241-49H chromated cooling water system after the failed segment was isolated from the system. The test was inconclusive.
H	CCWS (241-49H)			01/17/96	HELIUM	/	HE-96-006	Helium tracer test was performed on the 241-49H chromated cooling water system after the failed segment was isolated from the system. The test verified the integrity of the system.
H	CCWS (241-49H)			01/30/96	CCTV	/	370	Inspection was made in the PP-5&6 chromated cooling water headers. A video camera was introduced where these headers were cut to isolate them from the rest of the system. The inside of the pipes were clean and no corrosion of the internal surface had occurred. Elbows were encountered at 14 ft. into the supply line and at 17 ft. into the return line. Inspection was terminated at the elbows.
H	CTS			05/29/96	HELIUM	/	HE-96-014	A helium tracer test verified the integrity of the CTS loopline from Tank 29 through Tank 32.
F	DB-02			10/04/96	CCTV	/	425	CCTV was used to assist with leak checking in the diversion box. Stains on the floor indicate a leak in the vicinity of nozzle 25.
F	DB-02			10/11/96	CCTV	/	428	CCTV was used to document condition of the inlet ventilation duct. Minor debris and stains were observed. Water, condensate and other liquids were not present.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>	
F	DB-02		10/16/96	CCTV	/	425	CCTV was used to assist with leak check. Wall nozzle 25 was identified as leaking. Connector head was tightened and a subsequent leak check was performed and no leakage was observed.
H	DB-02		02/27/96	CCTV	/	373	CCTV inspection was used to document conditions and to verify equipment configuration in the diversion box. Dummy connectors and debris were observed on the pit floor.
F	DB-03		05/01/96	HELIUM	/	HE-96-012	A helium tracer test verified the integrity of the FDB-03 to Tank 33 transfer line.
F	DB-03		05/20/96	HELIUM	/	HE-96-013	A helium tracer test verified the integrity of the FDB-03 to Tank 34 transfer line.
F	DB-03		08/08/96	HELIUM	/	HE-96-016	Helium tracer test was performed on the transfer line from FDB3 to tank 33 due to water inleakage at MLDB1 at FDB3. The test was inconclusive.
F	DB-03		08/09/96	HELIUM	/	HE-96-017	Helium tracer test was performed on the transfer line from FDB3 to tank 33 due to water inleakage at MLDB1 at FDB3. The test verified the integrity of the core pipe.
F	DB-03		10/04/96	CCTV	/	425	CCTV was used to observe leak check. The jumper connections were leak free.
F	DB-03	MLDB#1	08/09/96	CCTV	/	381	CCTV was used to investigate groundwater inleakage at MLDB #1 at DB-03. The route of inleakage could not be determined.
F	DB-04	FWB	08/07/96	CCTV	/	381	CCTV was used to determine the position of valve 100. Due to a modification of the valve, the valve position could not be verified.
H	DB-04		06/06/96	CCTV	/	381	CCTV was used to assist operations in determining if valves 2 and 5 were operating properly. Both valves had broken shear pins.
H	DB-04		11/13/96	PHOTO	/	8162:01-13	Photographs were made to document jumper configuration.
H	DB-05	FWB	04/04/96	CCTV	/	381	Inspection was made to document conditions and to verify piping configuration in the flushwater box at HDB5. The inspection will be used for future reference.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS	
				IDENTIFICATION	/		
F	DB-06	LDB1	04/03/96	CCTV	/	NA	The bottom of the LDB appeared damp. The LDB contained flakes of rust, bits of TEFLON® pipe thread tape, and mud.
H	DB-06		07/09/96	CCTV	/	405	CCTV was used to document the operability of valve 1 and valve 9A. Observations confirmed that both valves were working properly.
H	DB-06		07/10/96	CCTV	/	405	CCTV was used to document the operability of valves 5, 6, 8, and 9. Inspection revealed all valves were fully operational.
H	DB-06	LDB5	09/18/96	CCTV	/	419	CCTV was used to inspect the drain plug stand pipe and the conductivity probe stand pipe. Inspection revealed particles of corrosion products in the LDB and standing water in the bottom of the drain line from the LDB. Mud and water were observed below the conductivity probe stand pipe.
H	DB-07		10/11/96	CCTV	/	424	CCTV was used to assist in locating the source of water inleakage. Water was observed coming into the diversion box from the gang valve header from Tanks 38 - 43 and the LDB drain header. An additional source of inleakage identified was rainwater which leaked into the cell via poorly sealed cell covers. The floor was covered with water at the time inspected. No other unusual condition was observed.
H	DB-07	N	08/07/96	CCTV	/	410	CCTV was used to document condition of the vault on the north side of DB-07. Vault condition was normal. Approximately 1/2" to 1" of water was observed on the vault floor.
H	DB-07	SE	03/19/96	CCTV	/	367	Observation was made to leak check nozzle #13. No leakage was observed.
H	DB-08		01/18/96	CCTV	/	364	Observation was made to leak check connections for jumpers 4(HDB-08)4 and 21(HDB-08)13-15. No leakage was observed.
H	DB-08		01/24/96	CCTV	/	364	Observation was made to leak check connections for jumper 1(HDB-08)1-2. No leakage was observed.
H	DB-08		06/09/96	CCTV	/	398	CCTV was used to document leak check of jumper 8(HDB-08)6-8. Initial leak check revealed floor nozzle 8 leaked; floor nozzle 6 and wall nozzle 8 were leak free. After floor nozzle #8 was tightened, all connections were leak free.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>
H	DB-08		08/05/96	CCTV	/	381
						CCTV was used to determine the position of valve WTS-V-266. Inspection revealed the valve pin had been sheared. While viewing the valve with CCTV, the valve was manipulated into and left in the open position.
H	DB-08		10/03/96	CCTV	/	426
						CCTV was used to observe leak check of jumper 1, 4(DB-08) 1, 2, 4. Floor nozzle 1 was leaked. The connector head was tightened and subsequent leak check revealed no leakage.
H	DB-08		10/09/96	WAP	/	8142:01-18
						Photographs were made to document jumper configuration.
H	DB-08	NE	03/06/96	CCTV	/	364
						Observation was made to leak check connections for jumpers 21(HDB-08)13 and 21(HDB-08)15. No leakage was observed.
H	DB-08	All (I)	03/06/96	WAP	/	8021:01-07
						Photographs were made to document equipment configuration in the diversion box.
F	Evap 16		07/10/96	CCTV	/	406
						CCTV was used to document annual inspection of the 242-16F Evaporator pot and cell. The evaporator and cell condition was normal.
F	Evap 16	Open Pit	07/11/96	CCTV	/	406
						CCTV was used to assist with removal, replacement, and leak check of south lift and vent jumpers. Jumpers were successfully removed and replaced. Replacement jumpers connections checked leak free.
H	Evap-16	SW	05/30/96	CCTV	/	389
						Cell condition had not changed.
F	FDB2	LDB-01	09/04/96	CCTV	/	416
						CCTV was used to inspect the leak detection box. The leak detection box was damp, free of obstructions, and no standing water was observed.
H	GDL		01/25/96	HELIUM	/	HE-96-007
						A helium test was performed to verify integrity of the core pipe of the gravity drain line from the 242-16H evaporator to Tank 38. The test was inconclusive.
H	GDL		01/31/96	HELIUM	/	HE-96-008
						Test verified the integrity of the core pipe of the gravity drain line from the 242-16H evaporator to Tank 38.
H	GDL		03/27/96	CCTV	/	381
						The newly constructed gravity drain line from the RHLWE to Tank 37 was inspected to check the line for debris and/or pluggage. Approximately sixty percent of the GDL was inspected. No obstruction or debris was observed in the line.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>	
H	GDL		12/10/96	HELIUM	/	HE-96-025	Test verified the integrity of the core pipe of the gravity drain line from the 242-16H evaporator to Tank 38.
F	HPFP		02/22/96	CCTV	/	374	CCTV was used to perform a general sump inspection to include drain pipe diameter and height, the condition of both drains, and check the conductivity probe conduit height above the floor. No pits, cracks, gouges, or any other imperfections were observed that would interfere with tapping of the drains.
F	HPFP		02/23/96	CCTV	/	374	CCTV was used to assist in tapping both sump drains. The tapping of the IAL drains was successfully performed.
F	HPFP		02/24/96	CCTV	/	374	CCTV was used to assist operations in pressure testing the IAL lines jacket. Pressure test of both lines was successfully performed.
F	HPFP		04/18/96	CCTV	/	382	Inspection was made to document the conditions and verify the presence of liquid in the sump. Stains and marks which indicated liquid had drained from the sump were observed in the Southeast corner of the sump. No liquid was observed.
F	HPFP		06/05/96	CCTV	/	394	CCTV was used to facilitate remote operations during the removal and installations of the sump pump and conductivity probes at the High Point Flush Pit. A video overview revealed debris scattered on the valve box floor. Efforts were successful in removing a majority of the debris prior to testing the operation of the sump pump and the integrity of the jumper during leak testing. No leakage or unusual condition was observed.
H	ITPFC-01	02	06/22/96	CCTV	/	400	CCTV was used to assist in placing the chemical flush jumper in the cell. The jumper would not mate properly to the flange. Jumper will be repaired and replaced at a later date.
H	ITPFC-01	02	08/30/96	CCTV	/	376	CCTV was used to observe leak checking in filter cell #1. A leak was observed at the Hanford connection on the filter outlet.
H	ITPFC-02	02	04/04/96	CCTV	/	380	Inspection was made to check for process leaks into the cell. No evidence of leakage was observed.
H	ITPFC-02	02	11/26/96	CCTV	/	404	CCTV was used to inspect Filter Cell #2 as required by P.R. 3.6.10. No unusual condition was observed.
H	ITPFC-02	02	12/09/96	CCTV	/	404	CCTV was used to provide visual imagery for remote installation of the chemical flush jumper. The jumper was installed as per procedure.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>			<u>REMARKS</u>
H	ITPFC-02	02, 07	07/13/96	CCTV	/	404	CCTV was used to document leak test. No evidence of leakage was observed. Connections for jumper N5 to N12 checked leak free.
H	ITPFC-02	04, 07	06/22/96	CCTV	/	400	CCTV revealed a small leak at the outlet transmitter flange on the outlet jumper.
S	LPPP	SW	12/02/96	CCTV	/	430	CCTV was used to assist in verifying the number and pin arrangement on electrical nozzles 12 and 19. No unusual conditions were observed in the pump pit.
F	PP-01		10/16/96	CCTV	/	425	CCTV was used to observe leak checking of valves 5 and 11. No leakage was observed.
H	PP-01		02/23/96	CCTV	/	373	CCTV was used to document conditions and to verify equipment configuration in the pump pit. The steel liner was distended from the west and south walls. A damp spot was observed on the south wall. The damp spot on the steel liner suggest a hole in the liner that allowed inleakage of water from behind the liner. Pump stands and debris were observed on the pit floor.
H	PP-02		02/27/96	CCTV	/	373	CCTV was used to document conditions and to verify equipment configuration in the pump pit. The steel liner was distended from the north, east, south, and west walls. Various jumpers and debris were observed on the pit floor.
H	PP-03		02/23/96	CCTV	/	373	CCTV was used to document conditions and to verify equipment configuration in the pump pit. The steel liner was distended from the north, east, south, and west walls. Various jumpers and debris were observed on the pit floor.
H	PP-04		02/27/96	CCTV	/	373	CCTV was used to document conditions and to verify equipment configuration in the pump pit. The steel liner was distended from the east and west walls. Various jumpers and debris were observed on the pit floor.
H	PP-07		01/24/96	CCTV	/	364	Observation was made to leak check connections for jumper 3(HPP-09)16. No leakage was observed.
H	PP-07		10/03/96	CCTV	/	426	CCTV was used to observe during leak checking in the pump pit. All connections were leak free.
H	PP-07	All	03/06/96	WAP	/	8022:01-07	Photographs were made to document equipment configuration in the pump pit.
H	PP-07	NE	03/18/96	CCTV	/	364	Observation was made to assist in determining the direction of rotation for the agitator in PT-07. The rotation of the agitator was clockwise.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD IDENTIFICATION / NUMBER			REMARKS
				CCTV	/	364	
H	PP-07	SE	03/06/96	CCTV	/	364	Observation was made to leak check connections for jumpers 19(HPP-07)23 and 2(HPP-07)23ZX. No leakage was observed.
H	PP-08		01/24/96	CCTV	/	364	Observation was made to leak check connections for jumper 3(HDB-08)16. No leakage was observed.
H	PP-08		06/09/96	CCTV	/	398	CCTV was used to document leak check on jumpers 2(HPP8)2 and 5(HPP8)20. Both jumpers checked leak free.
H	PP-08	All	03/06/96	WAP	/	8023:01-07	Photographs were made to document equipment configuration in the pump pit.
H	PP-08	NE	03/18/96	CCTV	/	364	Observation was made to determine the direction of rotation of the agitator in PT-08. The rotation of the agitator was clockwise.
H	PP-09		01/18/96	CCTV	/	364	Observation was made to leak check connections for jumpers 5(HPP-09)20 and 3(HPP-09)16-16X. No leakage was observed.
H	PP-09	All	03/06/96	WAP	/	8024:01-07	Photographs were made to document equipment configuration in the pump pit.
H	PP-09	NE	03/18/96	CCTV	/	364	Observation was made to determine the direction of rotation of the agitator in PT-09. The rotation of the agitator was clockwise.
H	PP-09	SE	03/06/96	CCTV	/	364	Observation was made to leak check connections for jumper 5(HPP-09)20. No leakage was observed.
H	PP-10	NE	03/12/96	CCTV	/		Observation was made to assist in determining the direction of rotation of the agitator in PT-10. The rotation of the agitator was clockwise.
H	PP-10	NW	03/06/96	WAP	/	8025:01-07	Photographs were made to document equipment configuration in the pump pit.
F	SWS	2F-03	05/01/96	CCTV	/	388	CCTV system was used to document condition of the storm drain. Sediment 2-4 inches deep was observed in the inlet and outlet RCP. Standing water was present in the inlet and outlet drains approximately 8-10 inches deep. No evidence of structural failure or significant infiltration through the liner was observed.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS
				IDENTIFICATION / NUMBER		
F	SWS	2F-09	05/01/96	CCTV /	388	CCTV system was used to document condition of the storm drain. Sediment 2-4 inches deep was observed in the inlet and outlet RCP. No evidence of structural failure or significant infiltration through the liner was observed.
F	SWS	3F-04	05/01/96	CCTV /	388	CCTV system was used to document conditions of storm drain. Sediment was observed approximately 2-4 inches deep in the inlet and outlet RCP. Water cascading down from a small inlet pipe has continued to erode the south 18 inch concrete sewer pipe. A few random voids were present in the mortar joints of the brick liner. No evidence of structural failure or significant infiltration through the liner was observed.
F	SWS	3F-06	05/01/96	CCTV /	388	CCTV system was used to document condition of the storm drain. Sediment 1-2 inches deep was observed in the outlet RCP. No evidence of structural failure or significant infiltration through the liner was observed.
F	SWS	3F-09	05/01/96	CCTV /	388	CCTV system was used to document condition of storm drain. Sediment 2-4 inches deep and debris were observed in the inlet RCP. No evidence of structural failure or significant infiltration through the liner was observed.
F	SWS	4F-03	10/23/96	CCTV /	388	CCTV was used to document condition of the storm drain and establish a baseline for future inspections. Sediment approximately 1-2 inches deep was observed in the 12" inlet and outlet RCP. Minor erosion of the top of the outlet RCP was caused by water from a small condensate drain. No evidence of structural failure or significant infiltration through the liner was observed.
F	SWS	4F-04	05/02/96	CCTV /	388	CCTV system was used to document condition of storm drain. The sewer pipes contained sediment 6-7 inches deep. A few random voids were present in the mortar joints of the brick liner. No evidence of structural failure or significant infiltration through the liner was observed.
F	SWS	4F-05	05/01/96	CCTV /	388	CCTV system was used to document condition of the storm drain. The 18 inch drain diameter sewer pipe contained sediment about 8-9 inches deep. No evidence of structural failure or significant infiltration through the liner was observed.
F	SWS	4F-08	05/01/96	CCTV /	388	CCTV system was used to document condition of the storm drain. Sediment approximately 5 inches deep was observed in the RCP. Significant erosion was observed in the bottom liner of the drain. A few random voids were present in the mortar joints of the brick liner. No evidence of structural failure or significant infiltration through the liner was observed.

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS
				IDENTIFICATION / NUMBER		
F	SWS	4F-09	05/02/96	CCTV	/	388
F	SWS	4F-11	05/20/96	CCTV	/	388
F	SWS	4F-12	05/01/96	CCTV	/	388
F	SWS	4F-13	05/01/96	CCTV	/	388
F	SWS	4F-15	05/01/96	CCTV	/	388
F	SWS	4F-17	05/20/96	CCTV	/	388

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS
				IDENTIFICATION	NUMBER	
F	SWS	4F-19	10/17/96	CCTV /	388	CCTV was used to document condition of the storm drain and establish a baseline for future inspections. Sediment approximately 2-4 inches deep was observed in the 18" inlet and outlet RCP. A few random voids were present in the joints of the brick liner. Condensate from a steam condensate drain has caused significant erosion of the bottom liner. No evidence of structural failure or significant infiltration through the liner was observed.
H	SWS	2H-02	09/25/96	CCTV /	422	CCTV was used to document conditions and establish a baseline for future inspections. Sediment approximately 6-8 inches deep was observed in the 12" inlet RCP. No evidence of structural failure or significant infiltration through the liner was observed.
H	SWS	2H-04	09/25/96	CCTV /	422	CCTV was used to document condition and establish a baseline for future inspections. Sediment approximately 3 inches deep was observed in the 18" inlet and outlet RCP. No evidence of structural failure or significant infiltration through the liner was observed.
H	SWS	2H-08	11/05/96	CCTV /	422	CCTV was used to document condition and establish a baseline for future inspections. Sediment approximately 5-6 inches deep was observed in the 12" outlet RCP. Debris and sediment was observed on the bottom of the drain liner. No evidence of structural failure or significant infiltrate was observed.
H	SWS	2H-09	09/25/96	CCTV /	422	CCTV was used to document condition and establish a baseline for future inspections. Sediment approximately 5 inches deep was observed in the 18" outlet RCP. Approximately 5 inches of standing water was observed in the inlet RCP. No evidence of structural failure or significant infiltration through the liner was observed.
H	SWS	2H-10	09/25/96	CCTV /	422	CCTV was used to document condition and establish a baseline for future inspections. Sediments and debris (rocky in appearance and approximately 5" inches deep) was observed throughout the length of the 18" outlet RCP. Significant random voids were observed in the brick liner near the bottom. Approximately 5 inches of standing water was observed in the inlet RCP.
H	SWS	6H-05	09/26/96	CCTV /	423	CCTV was used to document condition and establish a baseline for future inspections. Minor erosion was observed on the bottom of the concrete liner. A crowbar and a piece of broken pipe was observed at the bottom of the drain. No evidence of structural failure or significant infiltration through the liner was observed.

<u>AREA</u>	<u>TANK OR ANCILLARY</u>	<u>ACCESS OPENING (A OR I)</u>	<u>DATE</u>	<u>INSPECTION METHOD IDENTIFICATION / NUMBER</u>		<u>REMARKS</u>
H	SWS	6H-08	11/06/96	CCTV	/	423
H	SWS	6H-09	09/26/96	CCTV	/	423
H	SWS	6H-10	11/06/96	CCTV	/	423
H	SWS	7H-01	09/24/96	CCTV	/	421
H	SWS	7H-01	10/10/96	CCTV	/	427
H	SWS	7H-02	09/24/96	CCTV	/	421
H	SWS	7H-02	10/10/96	CCTV	/	427

AREA	TANK OR ANCILLARY	ACCESS OPENING (A OR I)	DATE	INSPECTION METHOD		REMARKS
				IDENTIFICATION / NUMBER		
H	SWS	7H-05	09/24/96	CCTV /	421	CCTV was used to document condition and establish a baseline for future inspections. Sediment approximately 2-3 inches deep was observed in the inlet and outlet RCP. A few random voids were present in the brick mortar joints of the brick liner. Minor erosion of the brick liner was observed near the top of the outlet RCP. No evidence of structural failure or significant infiltration through the liner was observed.
H	SWS	907-4H	08/27/96	CCTV /	414	CCTV was used to inspect the weir on the west side of 907-4H storm sewer. The weir was constructed of steel, in good condition, operating properly, and no unusual conditions were observed in the pit.
H	WT6261		12/11/96	CCTV /	432	CCTV was used to observe and document the condition of a 1.5" core pipe transfer line from the sump jet in DB-05 to Tank 21. A shallow gouge was observed on the O.D. core pipe. The gouge was made by construction during excavation activities.

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