Tri-Party Agreement

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) PERMITTING STATUS

February 5-6, 1992

GROUT TREATMENT FACILITY

•*Hanford Cleanup Agreement Milestone M-01-00*

At the Grout Treatment Facility, liquid waste is mixed with cement-like materials. The waste is then pumped into large, underground concrete vaults to harden. It will remain in the vaults permanently.

The U.S. Department of Energy (USDOE) first submitted the Grout Treatment Facility Dangerous Waste Permit Application to the Washington State Department of Ecology (Ecology) and U.S. Environmental Protection Agency (EPA) on November 18, 1988. It was reviewed, and a revision is scheduled to be submitted May 1, 1992. If the permit is accepted by the regulators, it will be issued for public comment in the first modification to the facility-wide permit. Grout operations are scheduled to begin in the last quarter of 1992.

616 NONRADIOACTIVE DANGEROUS WASTE STORAGE FACILITY (8-6-1)

•*Hanford Cleanup Agreement Milestone M-20-02*

The 616 Nonradioactive Dangerous Waste Storage Facility is located in the 600 Area of the Hanford Site between the 200 East and 200 West Areas. It was designed and constructed under hazardous waste container storage unit requirements.

The facility is being permitted under the Hanford Sitewide Draft Permit -- Treatment, Storage and Disposal of Dangerous Waste Draft Permit. The public comment period on the sitewide permit began January 15, 1992 and ends March 1, 1992. The permit is scheduled to be issued March 15, 1992.

HANFORD WASTE VITRIFICATION PLANT (TS-2-5)
•*Hanford Cleanup Agreement Milestone M-20-01*

The Hanford Waste Vitrification Plant (HWVP) will process pretreated high-level and transuranic waste currently stored in underground double-shell tanks at the Hanford Site. The Vitrification Plant will turn the waste into a glass-like substance, and place it in stainless steel canisters. The canisters will be stored at Hanford until a federal geologic repository is established. The facility is scheduled to begin operations in 1999.

The facility is being permitted under the Hanford Sitewide Draft Permit -- Treatment, Storage and Disposal of Dangerous Waste Draft Permit.

LOW-LEVEL BURIAL GROUNDS (D-2-9)
•*Hanford Cleanup Agreement Milestone M-20-06*

The low-level burial grounds receive solid low-level radioactive mixed wastes. These wastes are generated by many different federal operations both on and off the Hanford Site. Waste is packaged in steel, concrete, or wooden containers and then buried in disposal trenches. In the past, radioactive mixed-waste was placed throughout the area. Future radioactive mixed-waste will be placed in a trench meeting Dangerous Waste Landfill requirements.

Energy submitted the Low-level Burial Grounds Dangerous Waste Permit Application to Ecology and EPA on December 22, 1989. A request for exemption from the requirements to have a leachate collection and removal system (*a liner that collects moisture*) for the submarine reactor compartments has been submitted for review. A third review of the application will be completed in February 1992. Construction of the mixed waste trench is scheduled to start in the spring of 1992.

305-B MIXED WASTE STORAGE FACILITY
•*Hanford Cleanup Agreement Milestone M-20-08*

The 305-B Chemical Waste Storage Facility primarily serves research and development operations in the 300 Area. Wastes are brought to the facility for storage, repackaging, and/or consolidation. The wastes are generally placed into 55-gallon drums and then they are stored or disposed.

Energy submitted the 305-B Storage Facility Dangerous Waste Storage Permit Application to Ecology and EPA on January 31, 1990. The regulators are currently giving the application a second review.

THE PLUTONIUM - URANIUM EXTRACTION PLANT (PUREX) TUNNELS
•*Hanford Cleanup Agreement Interim Milestone M-20-11*

The PUREX Tunnels are located next to the PUREX facility in the 200 East Area of the Hanford Site. The two concrete reinforced tunnels store 880 pounds of radioactive mixed waste, loaded in railroad cars. A small percentage of the material is known to be dangerous waste. These wastes include lead, mercury and silver nitrate.

Energy submitted the PUREX Tunnels Dangerous Waste Permit Application to Ecology and EPA on September 28, 1990. It is currently under a second review.

222-S LABORATORY
•*Hanford Cleanup Agreement Milestone M-20-22*

The 222-S Laboratory area consists of three tanks at the 222-S Laboratory which store and treat mixed wastes generated from analytical laboratory work.

Ecology is currently reviewing the 222-S Laboratory Permit Application.

242-A EVAPORATOR
•*Hanford Cleanup Agreement Milestone M-20-17*

The 242-A Evaporator is a treatment unit used to reduce the waste volume in the double shell tanks. The evaporator removes the water and concentrates the waste. The concentrated wastes are sent back to the double shell tanks while the condensate (*water*) is planned to be sent to the Liquid Effluent Retention Facility (LERF) facility.

Ecology is currently reviewing the 242-A Evaporator Permit Application.

DOUBLE SHELL TANKS
•*Hanford Cleanup Agreement Milestone M-20-16*

Twenty-eight double-shell tanks at the Hanford Site are used to store liquid waste from the single-shell tanks, and production processes.

Energy submitted the Double-Shell Tank System Dangerous Waste Permit Application to Ecology and EPA in July 1991. It is currently under review by Ecology.

CENTRAL WASTE COMPLEX - RADIOACTIVE MIXED WASTE STORAGE
•*Hanford Cleanup Agreement Milestone M-20-05*

The Central Waste Complex is a mixed waste storage unit located in the 200 West area of Hanford. This unit is made up of numerous storage buildings designed to handle contaminated solid wastes. Ecology is currently reviewing the Central Waste Complex Permit Application.

CENTRAL WASTE COMPLEX - WASTE RECEIVING AND PROCESSING (WRAP) I
•*Hanford Cleanup Agreement Milestone M-20-12*

The WRAP facility will segregate, treat and repackage wastes for either shipment offsite or disposal on-site. The first stage of WRAP is under design. It will be primarily for segregating and repackaging wastes which are currently stored in retrievable trenches at the Hanford Site.

Ecology is reviewing this permit application.

STATUS OF CLOSURE PLANS

February 5-6, 1992

216-B-3 POND SYSTEM (D-2-5)
•*Hanford Cleanup Agreement Milestone M-20-09*

The 216-B-3 Pond serves as a disposal facility for the 200 East Area. The pond received process and cooling waters from the Plutonium-Uranium Extraction Plant (PUREX), B Plant, and other 200 Area facilities. The 216-B-3 Pond has also received potentially corrosive dangerous wastes from PUREX operations. Additions of acidic and caustic wastes neutralized the wastes before reaching the pond.

USDOE submitted the 216-B-3 Pond System Closure/Postclosure Plan to Ecology and EPA on March 30, 1990. Sediment sampling of the pond system is complete and analytical results are being reviewed. Once the data review is complete, decisions will be made regarding the closure requirements.

300 AREA SOLVENT EVAPORATOR (T-3-1)

USDOE submitted the 300 Area Solvent Evaporator Closure Plan to Ecology and EPA in October 1985, before the Hanford Cleanup Agreement was signed.

The Plan will be presented for public comment with the first modification to the facility wide permit.

2727-S NONRADIOACTIVE DANGEROUS WASTE STORAGE FACILITY (S-2-5)

The 2727-S Nonradioactive Dangerous Waste Storage Facility is located in the southeast portion of the 200 West Area. It stored nonradioactive dangerous wastes generated in the research and development laboratories, process operations, and maintenance and transportation function throughout the Hanford Site.

USDOE submitted the Closure Plan to Ecology and EPA in November 1987, before the Hanford Cleanup Agreement was signed. Ecology and USDOE have agreed to a change in closure strategy. This new closure strategy will be reflected in a revised closure plan to be submitted in March 1992.

SINGLE-SHELL TANKS (S-2-4)

•*Hanford Cleanup Agreement Milestone M-20-03*

The 149 single-shell tanks on the Hanford Site store highly radioactive liquid wastes which were generated from the 1940s to the 1970s. The tanks are made of reinforced concrete with a single carbon-steel liner. These tanks were taken out of service in 1980 and replaced with double-shell tanks. No waste has been added to the single-shell tanks since 1980. Throughout the life of the tanks, the liquid was concentrated by evaporation or pumped out. What remains in each tank is the remaining liquids and the solids resulting from the concentration efforts. The solids are in the form of sludges or hard saltcakes.

USDOE submitted the Single-Shell Tank System Closure/Corrective Action Work Plan to Ecology and EPA on September 29, 1989. USDOE is currently revising the Plan for resubmission to Ecology and EPA.

303-K MIXED WASTE STORAGE FACILITY AND 304 CONCRETION FACILITY

•*Hanford Cleanup Agreement Milestones M-20-13 and M-20-15*

The 303-K Storage Facility is located in the 300 Area of the Hanford Site. The building and outside storage pad are used to store radioactive mixed wastes in steel drums. Liquid wastes are stored on a 600-square-foot pad in the building. Solid wastes are stored outside, on a 3,500-square-foot asphalt and concrete pad.

The 304 Concretion Facility, also in the 300 Area, is a container storage pad and a building. The facility consists of a concretion unit that was used to treat radioactive mixed wastes generated during the fuel fabrication process. The wastes were mixed with concrete and placed into 30 and 50 gallon containers. This treats the wastes and eliminates the fire hazards.

Ecology is reviewing closure plans for the facilities.

300 AREA WASTE ACID TREATMENT SYSTEM
•*Hanford Cleanup Agreement Milestone M-20-10*

The 300 Area Waste Acid Treatment System stored and treated radioactive mixed waste generated in the fuel fabrication operation in the 300 Area of the Hanford Site. The system is made up of several buildings and tanks, plus various equipment used for storage and treatment such as ph adjustment, filtering and centrifuging wastes.

Ecology is reviewing the Closure Plan. A response will be sent to Energy in Spring 1992.

2101-M POND (D-2-1)
•*Hanford Cleanup Agreement Milestone M-20-04*

The 2101-M Pond is located in the 200 East Area of the Hanford Site. It was built in 1953 to receive nondangerous wastewater from the 2101-M Building.

USDOE submitted the 2101-M Pond Closure Plan to Ecology and EPA on September 29, 1989. Since then, the plan was revised and the pond resampled. The pond is scheduled to be closed in 1992.

183-H SOLAR EVAPORATION BASINS (T-1-4)

The 183-H Solar Evaporation Basins are located in the 100-H Area, near the northern end of the Hanford Site. The four basins were originally used for water treatment, and became solar evaporation basins in 1973. The basins stored and treated radioactive mixed wastes generated at the N Reactor fuel-fabrication facilities. The last shipment of wastes to the asins was in November 1985.

USDOE submitted the 183-H Solar Evaporation Basins Closure/Postclosure Plan to Ecology and EPA in November 1985, before the Hanford Cleanup Agreement was signed. The facility is being permitted under the Hanford Sitewide Draft Permit -- Treatment, Storage and Disposal of Dangerous Waste Draft Permit. The public comment period on the permit began January 15, 1992 and ends March 1, 1992. The permit is scheduled to be issued March 15, 1992.

105-DR SODIUM FIRE FACILITY AND NONRADIOACTIVE DANGEROUS WASTE LANDFILL

•*Hanford Cleanup Agreement Interim Milestone M-20-41*

The 105-DR Large Sodium Fire Facility is located in the 100 D and DR Area of the Hanford Site. It consists of a portion of the original 105-DR Reactor Facility. After the reactor was shut-down, the facility was modified and used to conduct experiments to study molten alkali metals (sodium and lithium). It was also used to thermally treat nonradioactive alkali metal waste material from various Hanford Site operations.

USDOE submitted the Closure Plan to Ecology and EPA on September 30, 1990. USDOE is currently rewriting the plan based on Ecology comments.

NONRADIOACTIVE DANGEROUS WASTE LANDFILL

•*Hanford Cleanup Agreement Interim Milestone M-20-07*

The Nonradioactive Dangerous Waste Landfill is a disposal facility located about two miles southeast of the 200 East Area. The landfill was used to dispose of dangerous wastes generated by various Hanford Site sources, including process operations, research and development laboratories, and maintenance and transportation functions throughout the Site.

USDOE submitted the Closure Plan to Ecology and EPA for review on August 31, 1990. Based on the plan, Ecology requested that USDOE evaluate the possibility of clean closing the landfill. Ecology is currently reviewing the information submitted to evaluate a clean closure approach.

THE SIMULATED HIGH-LEVEL WASTE SLURRY TREATMENT AND STORAGE UNIT CLOSURE

•*Hanford Cleanup Agreement Milestone M-20-19*

The Simulated High-Level Waste Slurry Treatment/Storage Unit is located in the 1100 Area of the Hanford Site. It stores containerized, simulated (imitation), commercial power reactor metal nitrate slurries from two PUREX waste streams. The unit also treated the stored slurry, using in-place grouting techniques, in November 1988.

USDOE submitted a revised Closure Plan to Ecology on June 29, 1990. Efforts are underway to dispose of the nonhazardous grouted material at a solid waste landfill which meets regulatory requirements. The closure plan is intended to be included in the first modification of the Hanford Sitewide Permit. It is intended to be clean closed.

4843 ALKALI METAL STORAGE
•*Hanford Cleanup Agreement Milestone M-20-14*

The 4843 Alkali Metal Storage Facility is a unit storing alkali metals generated from the Fast Flux Test Facility (FFTF). It is planned that all the wastes currently stored in this unit will be transferred to the Central Waste Complex.

Ecology is currently reviewing the Closure Plan.

3718-F ALKALI METAL TREATMENT
•*Hanford Cleanup Agreement Milestone M-20-18*

The 3718-F Alkali Metal Treatment and Storage Facility is a unit in the 300 area which treated and stored sodium, lithium and potassium wastes. This unit does not currently operate.

Ecology is in the process of reviewing this closure plan.