CURRENT STATUS OF OPERABLE UNIT INVESTIGATIONS COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA) PROCESS

February 5-6, 1992

1100-EM-1 (EPA LEAD, CERCLA PROCESS)
•*Hanford Cleanup Agreement Milestone M-12-01*

This operable unit (*area of the Hanford Site*) contains an equipment and vehicle maintenance area and a landfill. Radioactive contamination exists in the groundwater at the landfill. Battery acid, antifreeze and various solvents also contaminate the area.

The Remedial Investigation/Feasibility Study (RI/FS) Work Plan was approved in September 1989. USDOE's RI/FS report is due to Ecology and EPA on December 31, 1992. Currently all investigations are complete. USDOE and the Army Corps of Engineers are waiting for laboratory results and are in the process of preparing the RI/FS report.

200-BP-1 (EPA LEAD, CERCLA PROCESS)
•*Hanford Cleanup Agreement Milestone M-12-02*

Nine liquid cribs located in the northern portion of the 200 East Area make up the 200-BP-1 Remedial Investigation/Feasibility Study (RI/FS) operable unit. It is a high priority cleanup area. Radioactive substances present include: cobalt, uranium, cesium, strontium, technetium and plutonium. The hazardous substances of main concern are cyanide and nitrate. Groundwater contamination linked to the area has been observed in wells two miles to the north, between Gable Mountain and Gable Butte. The extent of groundwater contamination is currently unknown, but concentrations of cobalt-60, technetium-99, cyanide and nitrate exceed state and federal water quality standards for drinking water. Due to the groundwater contamination, this is considered a high priority operable unit.

The unit Work Plan was approved on March 16, 1990. Currently Phase I groundwater well drilling is complete and sampling has begun. Drilling and sampling of the area under the nine cribs began in June 1991. The large scale aquifer test for well 699-53-55C is complete. This was one of the largest aquifer tests ever completed on the Hanford Site. Data from the area is being reviewed. Field work for the area is currently suspended until vapor release issues related to the tank farms are resolved.

200 AGGREGATE AREA MANAGEMENT STUDIES
•*Hanford Cleanup Agreement Milestone M-27-00*

200 Aggregate Area Management Strategy (AAMS) methodology report was submitted to Ecology and EPA in June 1991. This was the first of eleven scoping studies to be done on specific study areas.

Ten AAMS reports are being prepared to meet Hanford Cleanup Agreement Milestones M-27-02 through M-27-11. USODE submitted the first, the Draft U Plant Aggregate Area Management Study Report (AAMSR), January 31, 1992, with another due each month following.

300-FF-1 (EPA LEAD, CERCLA PROCESS)
•*Hanford Cleanup Agreement Milestone M-12-03*

The 300-FF-1 operable unit contains 19 waste units, including burial grounds, retention basins, and both active process liquid disposal trenches, and inactive disposal ponds. The unit is located in the northeastern part of the 300 Area, next to the Columbia River.

Currently investigations of the area are underway. Weather permitting, the first phase of field work will be completed by mid-February. A soil washing treatability test is planned for the summer in one of the inactive disposal ponds.

300-FF-5 (EPA LEAD, CERCLA PROCESS)
•*Hanford Cleanup Agreement Milestone M-12-04*

The 300-FF-5 operable unit is made up of the groundwater and sediments beneath the 300-FF-1, 300-FF-2, and 300-FF-3 operable units. This area represents the major pathway for contaminants to migrate from the 300-FF-1,2, and 3 operable units to the Columbia River.

Remedial Investigation and evaluation of the area are underway. Nineteen wells have been drilled and sampled.

100 AREA STUDIES AND PAST PRACTICES STRATEGY
•*Hanford Cleanup Agreement Milestones M-28 through M-30*

In conjunction with the Ecology and EPA, USDOE has rescoped the first 11 Work Plans in the 100 Area. Negotiations are continuing between the parties.

The three parties have discussed Ecology's and EPA's comments on the first draft of the Hanford risk assessments methodology. (M-29-01, 02, and 03). The first report for M-30 is being prepared.

M-30 requires integrated general studies of the 100 Areas be completed by September 1993. USDOE has indicated that the background study, M-28, will be delayed about six months due to a shortage of analytical laboratory capacity. Groundwater and soils background studies, and river aquifer interaction studies will continue. Non-intrusive 100 Area wide investigation continues on schedule.

100-KR-1 AND 100-KR-4 (EPA LEAD, CERCLA PROCESS)
•*Hanford Cleanup Agreement Milestones M-12-10 and M-12-11*

The 100-KR-1 operable unit consists of the major liquid disposal units in the 100-KE and 100-KW reactor areas, including the "mile-long K trench". The 100-KR-4 operable unit consists of the groundwater and sediments beneath the 100-K areas.

Currently the rescoped Remedial Investigation/Feasibility Study (RI/FS) has been reviewed and comments were sent to USDOE. Cultural resource reviews and field investigations are complete. Data has been compiled for geology, hydrology, and ecology.

100-BC-1 AND 100-BC-5 (EPA LEAD, CERCLA PROCESS)
•*Hanford Cleanup Agreement Milestones M-12-08 and M-12-09*

The 100-BC-1 operable unit includes the major liquid disposal sites for the 100-B reactor. The 100-BC-5 operable unit follows the contaminant in the groundwater and surface water from all sites in the 100-BC Area. The 100-BC Area is located on the Columbia River about three miles downstream from the Vernita Bridge.

Currently the rescoped work plans are in the process of being revised. Final approval of the work plans is expected in mid-April. Non-intrusive polychlorinated biphenyl (PCB) sampling for electrical facilities associated with B and C area was conducted in December. Well drilling activities are scheduled to being in March.

100-HR-1 (Ecology Lead, RCRA Process)
•*Hanford Cleanup Agreement Milestone M-12-05*

The 100-HR-1 operable unit is located in the 100 Area, in the north-central part of the Hanford Site. It includes cribs, trenches, burial grounds and evaporation basins. These have received wastes from: process liquid waste transfer, treatment and disposal; reactor exhaust stack emissions; radioactive solid waste disposal, sanitary wastes transfer treatment and disposal; and N Reactor fuel fabrication liquid process waste treatment and storage. The unit also includes the H Reactor. Contaminants of

concern include radioactive substances, metals, non-metallic ions, and volatile organic compounds. Substances confirmed to be causing soil and groundwater contamination include: radionuclides, chromium, copper, lead and tetrachloroethylene.

Currently some investigations are taking place. The final draft of the work plan is expected to be approved in April, 1992.

100-HR-3 (Ecology Lead, RCRA Process)
•*Hanford Cleanup Agreement Milestone M-12-06*

This "groundwater" operable unit is located in the north-central area of the Hanford Site. Investigations at the unit will provide a regional assessment of groundwater, surface water, sediments and, plants and animals associated with the 100-HR-1, 100-HR-2, 100-DR-1, 100-DR-2, 100-DR-3 and 100-IU-4 operable units.

Remedial investigations will focus on near-term identification of areas requiring interim actions to stop existing or potential threats to public health or the environment. The final draft of the work plan is expected to be approved in April, 1992. Currently groundwater wells are being drilled as part of the RCRA Facility Investigation. These are considered Limited Field Investigations (LFIs) and include soil and water sampling, geophysics and aquifer testing.

100-DR-1 (Ecology Lead, RCRA Process)
•*Hanford Cleanup Agreement Milestone M-12-07*

This operable unit is also located in the 100 Area, in the north-central part of the Hanford Site. It includes numerous facilities associated with liquid waste disposal operations. These facilities include cribs, trenches, liquid storage basins, retention basins, process pipelines, contaminated reactor associated facilities, sanitary wastes facilities, and many support facilities, such as solvent storage tanks. This unit also includes the RCRA-regulated 100-D ponds and the D Reactor.

These units have received liquid waste and sludge; reactor exhaust stack emissions; radioactive and nonradioactive solid wastes, hazardous wastes, other liquid wastes and sanitary wastes. Contaminants of concern include: radioactive substances, corrosive chemicals, petroleum products, solvents, PCBs and metals. There is confirmed soil and groundwater contamination with substances including: radionuclides, chromium and copper.

Currently some field work, and vadose zone (*unsaturated area*) monitoring is occurring. The final draft of the work plan is expected to be approved in April, 1992.

100-NR-1 and 100-NR-2
•*Hanford Cleanup Agreement Milestones M-12-12 and M-12-14*

These units have been rescoped and renamed. The original NR-1, the groundwater operable unit is now NR-2. The original NR-3, the sources operable unit, is now NR-1. Currently the NR-1 and NR-2 rescoped RCRA Facility Investigation/Corrective Measure Study work plans are being reviewed and comments will be sent to USDOE by the end of February.

EPA and Ecology are discussing the most efficient and technologically feasible corrective action to take at N-Springs.

100-FR-1
•*Hanford Cleanup Agreement Milestone M-12-13*

The 100-FR-1 operable unit is located in the 100 Area in the north-central section of the Hanford Site, next to the Columbia River. It contains waste units associated with the original plant facilities constructed to support F Reactor operation, as well as cooling waste retention basin systems for F Reactor, and biological laboratories for studying the effects of radiation on plants and animals. These facilities include cribs, trenches, french drains, restoration basin, irradiated fuel storage basin, reactor exhaust stack, septic tank and drainfield, treatment plant and many support facilities.

The 100-FR-1 operable unit received wastes containing both hazardous and radiological constituents (*mixed wastes*). These wastes were released directly to the soil column in association with large amounts of water.

Remedial investigations will focus on near term identification of areas requiring interim actions to stop existing or potential treats to public health and environment. EPA and Ecology have reviewed the draft copy of the Remedial Investigation/Feasibility Study Work Plan and the final draft is expected to be approved in May 1992.