

CURRENT STATUS OF OPERABLE UNIT INVESTIGATIONS

October 16-17, 1991

1100-EM-1 (EPA Lead, CERCLA Process)

This operable unit contains an equipment and vehicle maintenance area as well as a landfill. Radioactive contamination is not a concern here, but contamination with such substances as battery acid, antifreeze, and various solvents is known to exist. The Remedial Investigation/Feasibility Study (RI/FS) Work Plan was approved in September 1989.

Status:

The U.S. Environmental Protection Agency (EPA) and State of Washington Department of Ecology (Ecology) have approved a change request to revise the milestones for delivery of the RI Phase II Report and the FS Phase III Report for the 1100-EM-1 operable unit. The reports will be combined into an RI/FS report due to be delivered by the U.S. Department of Energy (DOE) to the regulators on December 31, 1992.

During the last quarter, the 1100-EM-1 Supplemental Work Plan, Revision 1, was completed. Excavation of test pits and sampling of soils within the Horn Rapids Landfill were initiated. Quarterly soil gas sampling and the fourth quarter of groundwater sampling was completed in August. Additionally, the ecological investigation and report were completed.

200-BP-1 (EPA Lead, CERCLA Process)

The 200-BP-1 RI/FS operable unit is comprised of nine liquid cribs located in the northern portion of 200 East Area. This operable unit is the first of many operable units at Hanford that contain mixed radioactive and hazardous waste. Radioactive substances present in 200-BP-1 include cobalt, uranium, cesium, strontium, technetium, and plutonium. The principle hazardous substances of concern are cyanide and nitrate. Groundwater contamination attributed to 200-BP-1 has been observed in wells approximately two miles to the north between Gable Mountain and Gable Butte. At present, the extent of groundwater contamination is unknown, but it is known that concentrations of cobalt-60, technetium-99, cyanide, and nitrate exceed health based standards for drinking water. Due to this groundwater contamination, 200-BP-1 is considered a high priority operable unit.

The 200-BP-1 RI/FS Work Plan was approved on March 16, 1990.

Status:

Phase I groundwater well drilling has been completed and quarterly sampling commenced. Drilling and sampling of the vadose zone underlying the nine cribs began in June. Four boreholes will be completed by September 30, 1991.



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200 Aggregate Area Management Strategy

The 200 Aggregate Area Management Strategy (AAMS) methodology report (milestone M-27-01) was submitted to the regulators in June 1991. Offsite contractors have been acquired to commence preparation of the 10 AAMS reports (milestone M-27-11) to be completed by September 1992.

300-FF-1 (EPA Lead, CERCLA Process)

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

Status:

Vadose zone drilling and sampling activities commenced in September 1991. Geophysical survey work was initiated at the burial ground sites within the operable unit. Data interpretation is ongoing. Surface contamination cleanup field activities were initiated, with fifteen areas of localized contamination removed.

300-FF-5 (EPA Lead, CERCLA Process)

The 300-FF-5 operable unit consists of the groundwater and sediments beneath the 300-FF-1, 300-FF-2, and 300-FF-3 operable units. This operable unit represents the major pathway for contaminants to be transported from the 300-FF-1, 2, and 3 operable units to the Columbia River.

Status:

Groundwater well drilling activities commenced in May 1991. Eleven wells will be completed by September 30. Additionally, a sonic drill rig drilling demonstration was successfully conducted.

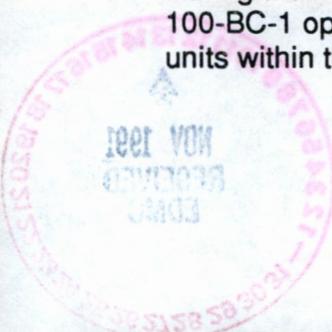
100 Area Studies and Past Practices Strategy

Status:

The negotiations between the regulators and the U.S. Department of Energy Field Office, Richland (RL) continued during the quarter. In conjunction with the regulators, RL has rescoped the first 11 Work Plans within the 100 Area, and Westinghouse Hanford Company is currently rewriting the Work Plans to align work with the new strategy.

During the next quarter, drilling of vadose zone boreholes within 100-DR-1, 100-HR-1, and 100-BC-1 operable units will be initiated. Non-intrusive field investigations at 11 operable units within the 100 Areas, including spring seep studies, will continue. Risk assessment

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methodologies development, groundwater and soils background studies, and river aquifer interaction studies will all continue.

The draft Soils and Groundwater Background Methodologies report was issued for review on July 31, 1991. The Site-Wide Soil Background Sampling Plan was submitted to the regulators and a comment resolution meeting is forthcoming. The Risk Assessments Codes and Models Methodology document was issued for review on September 30, 1991. Spring and seeps sampling was initiated in September, but was delayed slightly due to high flow rates in the Columbia River. Non-intrusive 100 Area wide investigation continues on schedule.

100-KR-1 and 100-KR-4 (EPA Lead, CERCLA Process)

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.

Status:

The draft Work Plans have been rescoped through negotiations with the regulators, and are being rewritten. The Work Plans are scheduled to be submitted to the regulators on October 31, 1991. Cultural resource reviews and field investigations are complete. Data compilation is completed for geology, hydrology, and ecology.

100-BC-1 and 100-BC-5 (EPA Lead, CERCLA Process)

The 100-BC-1 operable unit contains the major liquid disposal sites that services the 100-B reactor, while the 100-BC-5 operable unit corresponds to the extent of contaminant in the groundwater and surface water influenced by all sites in the 100-BC Area. The 100-BC Area is located on the Columbia River approximately 3 miles downstream from the Vernita Bridge.

Status:

Rescoped Work Plans were submitted to the regulators on September 30, 1991. Cultural resource review, field investigations, and topographic maps are completed. Geologic mapping is completed for the 100-B Area. Data compilation is completed for geology, hydrology, and ecology. Non-intrusive activities are continuing within the 100 Areas, such as surface water and shoreline sediment sampling. These activities will continue through the first quarter of fiscal year (FY) 1992.

100-HR-1 (Ecology Lead; RCRA Process)

This 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 waste management units have received wastes from the following activities: process liquid waste

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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. This unit also includes the H Reactor. Contaminants of concern include radioactive substances, metals, non-metallic ions, and volatile organic compounds. There is confirmed soil and groundwater contamination with substances including: radionuclides, chromium, copper, lead, and tetrachloroethylene.

Status:

The rescoped Work Plan was submitted to the regulators on October 2, 1991. Ecological field investigations were completed. Planning for intrusive drilling activities were initiated during the last quarter. Drilling is scheduled to be initiated during the second quarter of FY 1992.

100-HR-3 (Ecology Lead, RCRA Process)

This "groundwater" operable unit is located in the north-central area of the Hanford Site. Investigations at this unit will provide a regional assessment of groundwater, surface water, sediments and biota 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 be conducted with a focus on near-term identification of those areas requiring interim actions in order to abate existing or potential threats to the public health or the environment.

Status:

The rescoped Work Plan was submitted to the regulators on September 30, 1991. The source data report has been completed. Surface water and sediment sampling was initiated in September. Drilling for installation of groundwater monitoring wells is scheduled to begin in early October 1991.

100-DR-1 (Ecology Lead, RCRA Process)

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 effluent pipelines, contaminated reactor ancillary 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 waste management units have received process liquid waste and sludge; reactor exhaust stack emissions; radioactive and non-radioactive 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.

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Status:

The rescoped Work Plan was submitted to the regulators on September 30, 1991. Ecological field investigations were completed. Drilling is scheduled to begin in early October 1991.

100-NR-1 and 100-NR-3

Status:

The draft Work Plans have been rescoped through negotiations with the regulators. The Work Plans are currently being rewritten and will be issued to the regulators on December 31, 1991.

100-FR-1 and 100-FR-3

Status:

The draft Work Plans have been rescoped through negotiations with the regulators. The Work Plans are currently being rewritten and will be issued to the regulators on November 30, 1991. A comment resolution meeting concerning the original 100-FR-1 draft is scheduled for October 15. The original 100-FR-1 work plan dealt with both source and groundwater contamination. It was decided by the three parties to divide the original operable unit into separate source and groundwater operable units, 100-FR-1 and 100-FR-3 respectively. This was done for consistency with the other reactor operable units.

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