



2.4 Environmental Occurrences

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Onsite and offsite environmental releases of radioactive and regulated materials are reported to DOE and other federal and state agencies as required by law. The specific agencies notified depend on the type, amount, and location of the individual occurrences. In some cases, an occurrence may be under continuing observation and evaluation. All emergency, unusual, and off-normal occurrences at the Hanford Site are reported to the Hanford Site Occurrence Notification Center. This center is responsible for maintaining both a computer database and a hard-copy file of event descriptions and

corrective actions. Copies of occurrence reports are made available for public review in the DOE's Hanford Reading Room located in the Consolidated Information Center on the campus of Washington State University at Tri-Cities, Richland, Washington. The following sections summarize some of the emergency and off-normal environmental occurrences not previously discussed or that were not discussed in detail. For each occurrence, the title and report number from the Hanford Site Occurrence Notification Center is given in the heading.

2.4.1 Emergency Occurrences

As defined in DOE Order 232.1A, emergency occurrences "are the most serious occurrences and require an increased alert status for onsite personnel and, in specified cases, for offsite authorities." There was one emergency occurrence report filed in 2000.

- Highway 24 Command Wildfire on the Hanford Site (RL-PHMC-HFD-2000-0002)

The 2000 Hanford wildfire is discussed in Section 5.0. An accident investigation report was produced by DOE (Type B Accident Investigation, U.S. DOE Response to the 24 Command Wildland Fire on the Hanford Site, June 27-July 1, 2000, DOE/RL-2000-63).

2.4.2 Unusual Occurrences

An unusual occurrence is defined in the DOE Order as "a non-emergency occurrence that exceeds the Off-Normal Occurrence threshold criteria, is related to safety, environment, health, security, or

operations, and requires immediate notification to DOE." There were no environmentally significant unusual occurrence reports filed during 2000.

2.4.3 Off-Normal Occurrences

Off-normal environmental occurrences are classified in the DOE Order as "abnormal or unplanned events or conditions that adversely affect, potentially affect, or are indicative of degradation in the safety, safeguards and security, environmental or

health protection, performance or operation of a facility." Several of these occurrences and the results of state and federal inspections are discussed in Sections 2.2.6.4 and 2.2.8.



Three environmentally related off-normal occurrences took place in 2000.

- Elevated Tritium Measured in Groundwater Monitoring Well at 618-11 Burial Ground Site (RL-PNNL-PNNLBOPER-2000-0003)

Hanford Site well 699-13-3A was sampled on January 25, 1999 and analyzed for tritium. The result (1.86 million pCi/L) was received by Pacific Northwest National Laboratory, passed through verification checks, and entered into the Hanford Environmental Information System database on May 1, 1999. Although below the DOE derived concentration guide for tritium, the result was higher than expected. The routine technical evaluation of the datum failed to identify this value as anomalous. As a result, DOE and the Hanford Environmental Restoration Contractor were not notified of the high tritium concentration in a timely manner. Because of the high tritium concentration, well 699-13-3A was re-sampled on January 27, 2000 and analyzed for tritium. The result was 8.14 million pCi/L, which exceeded the DOE derived concentration guide of 2 million pCi/L. As a result, a number of corrective actions were initiated to improve the review of groundwater data and the reporting of anomalous results.

- Water Sampling Results Exceed Bacteria Maximum Contaminant Levels (RL-PHMC-S&W-2000-0002)

The laboratory results for routine monthly samples of potable water collected February 1, 2000 in the 200-East Area indicated that the maximum contaminant level for total coliform bacteria was exceeded in one of nine samples. Repeat samples were obtained

and analyzed immediately after the positive sample result was found and these samples did not indicate a bacteria problem. Additional sampling performed by the Benton-Franklin County Health Department also indicated that no *E-coli* bacteria were present. Log reviews and continued repeat sampling for chlorine residuals indicated there was adequate chlorine available in the distribution system prior to, and following the event to provide adequate disinfection.

- Non-Radioactive Miscellaneous Solid Waste was Inadvertently Shipped to Offsite Landfills (RL-BHI-GROUNDWTR-2000-0001)

On February 25, 2000, Bechtel Hanford, Inc. determined that non-radioactive miscellaneous solid waste may have been inadvertently transported off the Hanford Site and disposed in offsite landfills. This miscellaneous solid waste consisted of items such as wipes, gloves, filters, stickers, and tape that were generated during groundwater sampling, well construction, and well maintenance activities during the past several years. Some of the waste may have contacted groundwater containing low concentrations of hazardous water (e.g., carbon tetrachloride or methanol). Because of the low levels of these contaminants, it was expected that little or no contamination was present in the miscellaneous solid waste. However, consistent with management of groundwater waste, any miscellaneous solid waste that contacted the contaminated groundwater should have been managed at facility permitted to manage hazardous waste. Miscellaneous solid waste generated during groundwater sampling activities is now segregated and transported to a centralized location on the Hanford Site for appropriate disposal.