



## 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 occurrence. 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 hardcopy file of event descriptions and corrective actions. Copies of occurrence reports are made available for public review in DOE's Public Reading Room located in Richland, Washington. The following sections summarize some of the unusual and off-normal environmental occurrences not discussed in Sections 2.1 through 2.3 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.

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### 2.4.1 Emergency Occurrences

Emergency occurrences are defined in DOE Order 232.1A as "the most serious occurrences and require an increased alert status for onsite personnel and, in specific

cases, for offsite authorities." There were no environmentally significant emergency occurrence reports filed during 2001.

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### 2.4.2 Unusual Occurrences

Unusual occurrences are defined as "a non-emergency occurrence that exceeds the off-normal occurrence threshold criteria, is related to safety, environment, health, security or operations" by DOE Order 232.1A. There was one environmentally significant unusual occurrence report filed in 2001.

- PCB release at the 600-23 Remediation Site (RL-BHI-REMACT-2001-0007)

On May 10, 2001, a subcontractor was involved in excavation activities at the 600-23 burial site. The 600-23 burial site is located north of the Wye Barricade on Route 2 South, near mile marker six, on the east side of the road. The site was used to dispose of non-radioactive construction debris and drums. At 1500 hours on May 10, 2001, the subcontractor

unearthed an unknown piece of equipment. The equipment had an engine with a liquid reservoir. Approximately 38 liters (10 gallons) of an oily substance leaked from this reservoir to the ground. The equipment was placed on a plastic tarp within a bermed area. The contaminated soil was excavated and placed into containers. Laboratory analysis of the contaminated soil revealed the presence of polychlorinated biphenyls in the spilled substance. It was estimated that ~1.2 kilograms (2.6 pounds) of polychlorinated biphenyls were released to the soil. This exceeded the CERCLA reportable quantity. The spill was entirely contained and the equipment and contaminated soil were disposed of at the Environmental Restoration Disposal Facility.

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## 2.4.3 Off-Normal Occurrences

The DOE order describes off-normal occurrences as “abnormal or unplanned events or conditions that adversely affect, potentially affect, or are indicative of deprecation in the safety, safeguards and security, environmental or health protection, performance or operation of a facility.” Four off-normal occurrences with environmental impacts not discussed in other sections are outlined here.

- Brush Fire (RL-PHMC-FSS-2001-0009)

On Thursday, August 16, 2001, a spark ignited grass and sagebrush at a remote jobsite in the 600 Area. The spark was generated by a metal-cutting chop saw at ~1300 hours. Employees at the scene expended two portable fire extinguishers in an attempt to control the fire. This proved ineffective, and the Hanford Fire Department was called to the scene. At ~1512 hours, the fire was contained. The resulting damage was between 0.8 to 1.6 hectares (2 to 4 acres) of burned grass and sagebrush.

- Oil in Well 699-43-2 (RL-BHI-GROUNDWTR-2001-0001)

Well 699-43-2 is located just south of the Hanford town site. On February 8, 2001, a field inspection team was collecting data on the water level and depth of the well using an electronic water-sensing tape (e-tape). After removing the e-tape from the well, members of the inspection team noticed an oily aroma, and an oily substance on their hands, gloves, and the e-tape. Rags used to clean the e-tape were

placed in plastic bags for later disposal. Laboratory analysis of the oily substance identified it as a light diesel hydrocarbon determined to be ignitable. The waste generated by sampling of the well was determined to be unregulated and was disposed of accordingly. The well was locked and secured, and it was identified in the Waste Information Data System.

- Employees suffer respiratory irritation as a result of severe winds and resulting dust (RP-CHG-TANKFARM-2001-0020)

On March 22, 2001, five employees from a 200-West Area tank farm reported to the Hanford Environmental Health Foundation with various respiratory complaints. All five employees were diagnosed with upper airway irritation and complications. Hanford Environmental Health Foundation doctors determined the cause to be exposure to dusty conditions on March 19, 2001. All five employees had pre-existing conditions of asthma and/or allergies.

- 200-West Area unscheduled shutdown due to wind speed and blowing dust (RP-CHG-TANKFARM-2001-0027)

At 1415 hours on April 30, 2001, all non-essential activities in the 200-West Area were suspended by the shift manager. Sustained winds of 11 m/s (25 mph) and wind blown dust triggered the suspension of operations. At 1515 hours, all non-essential employees were instructed to go home.