



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

900 North Skyline, Suite B, Idaho Falls, Idaho 83402-1718 • (208) 528-2650

February 12, 2004

Dirk Kempthorne, Governor
C. Stephen Allred, Director

CERTIFIED MAIL 7002 0460 0000 9245 0689
RETURN RECEIPT REQUESTED

Dave Wessman
U.S. Department of Energy
Idaho Operations Office
Idaho Falls, ID 83401-1216

**Subject: Schedule and Criteria for petroleum release from PBF Heating Oil Tank
PER-722 reported in 2002**

Dear Mr. Wessman:

Enclosed is a Schedule and Criteria for the petroleum release at the Power Burst Facility Heating Oil Tank PER-722 and/or delivery system (collectively referred to as PER-722) at the Idaho National Engineering and Environmental Laboratory. The Idaho Department of Environmental Quality (the Department) was informed on July 30, 2002 that the estimated volume of diesel fuel lost between 2000 and July 27, 2002 was 17,143 gallons. Subsequent testing determined the tank had failed, and sampling confirmed the presence of petroleum contamination in soil and basalt at the Property.

The Department appreciates the work the U.S. Department of Energy has conducted at PER-722. This Schedule and Criteria is being issued because it serves as the most expedient means to formalize the monitoring required to further evaluate environmental conditions at this site. If you have any questions please contact me at (208) 528-2650.

Sincerely,

David Frederick
Remediation Scientist

Enclosure

Cc: File
Reading File
Steve Heaton, Idaho Falls Regional Office
Rick Jarvis, Central Office
Darrell Early, Central Office

IFRO

19683



SCHEDULE AND CRITERIA FOR INEEL PER-722 AT THE POWER BURST
FACILITY IN ACCORDANCE WITH IDAPA 58.01.02. ET SEQ, IDAHO WATER
QUALITY STANDARDS AND WASTEWATER TREATMENT REQUIREMENTS

- 1.0 The U.S. Department of Energy (DOE) owns the Idaho National Engineering and Environmental Laboratory (INEEL). Bechtel BWXT Idaho, LLC (BBWI) is the DOE's primary contractor at the INEEL. On June 27, 2002, the Department of Environmental Quality (the Department) was notified of an apparent release of about 250 gallons of diesel fuel from the PER-722 underground storage tank and/or associated delivery system located at the Power Burst Facility on the INEEL (PER-722). On July 30, 2002 the Department was informed that the estimated volume of diesel fuel lost between 2000 and July 27, 2002 was 17,143 gallons. Subsequent testing determined the tank had failed, and sampling confirmed the presence of petroleum contamination in soil and basalt at the Property.

Pursuant to agreement of the Parties, DOE proceeded to investigate the spill as a self-initiated action. A Characterization Plan was submitted to the Department on November 19, 2002. By letter dated December 5, 2002, the Department concurred with the plan and formally "suspended the timeline for negotiation of a Consent Order" pending review of the findings. The Characterization Plan provided for a two-staged approach to the investigation. The first stage allowed for coring to the depth of the expected first significant sedimentary interbed, approximately 140 feet below the surface (bls). The plan provided that if petroleum concentrations above the Tier 0 cleanup levels specified in the Department's *Risk-Based Corrective Action Guidance Document for Petroleum Releases* (RBCA), the second stage of the investigation (completion of a well to the Snake River Plain Aquifer) would be initiated. The first stage of drilling was completed in April 2003; however, the borehole did not intercept an interbed at 140 feet bls. Absent the sedimentary interbed, the DOE collected basalt samples that were then analyzed for constituents outlined in the Idaho *Risk-Based Corrective Action (RBCA) Guidance Document for Petroleum Releases*. The results of the analyses were discussed with the Department on July 28, 2003, and the *Summary Report for the Characterization of the PER-722 Underground Storage Tank Diesel Fuel Release* [INEEL/EXT-03-01089] was submitted to the Department on September 30, 2003, as specified in the Characterization Plan. This report proposed, based on a predictive model, that there was no material threat to the aquifer. The Department reviewed the report and responded with a letter on November 6, 2003, stating that the Department did not agree with the report's recommendation of "no further action" and stated that "additional justification based on site-specific data" and "site-specific measurements" should be obtained.

In January 2004 DOE continued the self-initiated action by drilling a corehole to the aquifer and installing a monitoring well. Concentrations of naphthalene and xylenes in a sample collected from the sedimentary interbed at 276-feet bls exceeded the Tier 0 cleanup levels specified in RBCA. No diesel contamination was visible below the clay layer at 327.5 feet bls. Low levels of toluene (< 5 µg/L) were detected in groundwater samples collected from the well on January 19 & 20, 2004.

2. Hereafter, references to 'PER-722' refer to the underground storage tank and associated system identified above, and, 'DOE' refers to the U.S. Department of Energy and, where appropriate, also refers to any agent(s) acting on the U.S. Department of Energy's behalf. Because of the large estimated volume of diesel fuel released (17,123 gallons), the Department believes the release poses a threat to groundwater. The DOE disagrees, based on the sampling results and the uncertainty in the release estimate. In order to protect human health and the environment from contamination caused by release of petroleum at the Property, the DOE shall perform the following actions:

Conduct three years of groundwater monitoring in accordance with a sampling and analysis plan (SAP) negotiated with the Department. Within forty-five (45) days of the effective date of this Schedule & Criteria, the DOE shall submit two (2) copies of the SAP to the Department for review and approval. The SAP shall include a schedule for submitting analytical data to the Department. The Department will respond with any comments, questions, or requests for further information within thirty (30) days of receipt of the SAP. If further information is requested by the Department, the DOE shall submit such information to the Department within thirty (30) days of the Department's request. The above described review process shall be repeated, until the SAP is approved by the Department; however, the SAP must meet the Department's approval within one hundred twenty (120) days of the due date, unless the Department provides otherwise. The Department shall notify the DOE, in writing, of the Department's approval.

3. All communications required by this Schedule & Criteria shall be addressed to:

Jim Johnston, Regional Administrator
Idaho Department of Environmental Quality
900 N. Skyline Dr.
Suite B
Idaho Falls, ID 83402
208-528-2650

4. Failure to comply with the terms of this Schedule & Criteria, including failure to collect the samples, may result in an administrative or district court action; civil penalties in the amount of \$10,000 per violation or \$1,000 per day for a continuing violation, whichever is greater; assessment of expenses; attorney's fees; restraining orders; injunctions; and other relief as the court considers to be just and reasonable under the circumstances.
5. If groundwater concentrations exceed regulatory levels, additional work will be required.

6. The effective date of this Schedule & Criteria shall be the date of signature by the Administrator of the Department's Waste Management and Remediation Program.

DATED this 10th day of February, 2004

By: JOE NACER (for)
Orville B. Green, Administrator
Waste Management and Remediation Division
Idaho Department of Environmental Quality