



IDAHO DEPARTMENT
OF HEALTH AND WELFARE

DIVISION OF
ENVIRONMENTAL QUALITY

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Philip E. Batt, Governor

January 6, 1997

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Program Management

Mr. Nolan Jensen, Acting Director
Environmental Restoration Program
U.S. Department of Energy
Idaho Operations Office
850 Energy Drive
Idaho Falls, ID 83401-1563

RE: OU 2-12 Third Annual Technical Memorandum and Three-Year Review

Dear Mr. Jensen:

The purpose of this letter is two-fold: 1) to provide comments based upon the Idaho Department of Health and Welfare, Division of Environmental Quality's (IDHW/DEQ's) review of the *Post-Record of Decision Monitoring for the Test Reactor Area Perched Water System Operable Unit 2-12 Third Annual Technical Memorandum* (Third Annual Technical Memorandum) dated August 1996, and 2) to provide IDHW/DEQ's three-year review of the remedy selected in the OU 2-12 Record of Decision (ROD) to ensure that adequate protection of human health and the environment continues to be provided.

OU 2-12 Third Annual Technical Memorandum

In general, the Third Annual Technical Memorandum is well-prepared and reflective of discussions/agreements reached between the WAG 2 Managers since the first technical memorandum was issued. This document thoroughly presents and evaluates the three years of post-ROD groundwater monitoring data for the Deep Perched Water System (DPWS) at the Test Reactor Area (TRA) and the underlying Snake River Plain Aquifer (SRPA). IDHW/DEQ's only comment on the Third Annual Technical Memorandum pertains to the sampling at well PW-13.

IDHW/DEQ had expressed concern in the past regarding the potential for on-going releases from the aboveground diesel storage tanks at the north end of the TRA facility. This concern resulted from the lack of definitive evidence that the appearance of diesel fuel in well PW-13 was due to leakage from a nearby diesel fuel transfer line (abandoned in place). To eliminate the possibility that the

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presence of diesel fuel in well PW-13 may be attributable to on-going releases from the aboveground diesel storage tanks, the Third Annual Technical Memorandum (Section 2.3.2) indicates that diesel was never observed by USGS personnel during sampling of wells USGS-68 and USGS-72 "which are downgradient from these tanks and upgradient from well PW-13." However, this information appears only partially conclusive given the completion depths and screened/open intervals of the wells. Well PW-13 is shallower (80 feet) than both USGS-68 (128 feet) and USGS-72 (200 feet). Well PW-13 appears to be screened immediately above the uppermost interbed at TRA. USGS-68, open hole from 44 to 128 feet, appears to monitor the same interval as well PW-13 given similar groundwater elevations, but is somewhat side-gradient from the aboveground diesel storage tanks rather than downgradient. The groundwater elevations in USGS-72, open hole from 172 to 200 feet, appear to be approximately 90 feet lower than those in well PW-13 which indicates that these two wells are monitoring different zones.

Although the information presented in the Third Annual Technical Memorandum does not definitively identify/eliminate the possible source(s) of diesel fuel in well PW-13, the explanation for the presence of diesel fuel in well PW-13 due to leakage from an abandoned nearby diesel fuel transfer line appears the most reasonable given that diesel fuel has not been detected in other DPWS wells. The "localized-release" explanation is further supported by the fact that the diesel fuel observed initially in well PW-13 has not returned since removal of approximately 20 gallons in September 1990, and ethylbenzene was detected only at very low concentrations (~3-5 ug/L). However, it is recommended during future OU 2-12 sampling endeavors that a visual observation be made as to whether diesel is present/absent in the DPWS monitoring well network. If diesel contamination is observed to be more widespread, then the issue of possible on-going diesel releases may need to be revisited at that time.

OU 2-12 Three-Year Review

IDHW/DEQ concurs with the information and conclusions presented in the U.S. Environmental Protection Agency (EPA), Region 10, Three-Year Review dated November 8, 1996. IDHW/DEQ concludes as well that the remedy selected for OU 2-12 continues to provide adequate protection of human health and the environment. Specifically, IDHW/DEQ is in agreement with the following recommendations for OU 2-12 monitoring included in the Third Annual Technical Memorandum. It is our understanding that all other requirements/procedures contained in the *OU 2-12 Post-ROD Monitoring Plan* (June 1993) are to remain in effect, including analysis of filtered and unfiltered metals samples.

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- Sampling should continue at SRPA well TRA-8.
- Sampling should begin at SRPA well TRA-6.
- Positive displacement pumps in SRPA wells TRA-6 and TRA-8 should be replaced with submersible pumps to improve sampling efficiency and allow access for water level measurements.
- Sampling frequency should be reduced to semi-annually for both the DPWS and the SRPA wells.
- SRPA wells should be sampled for total dissolved chromium and tritium semi-annually and cadmium, cobalt-60 and strontium-90 annually.
- DPWS wells should be sampled for total dissolved chromium, tritium, cadmium, cobalt-60 and strontium-90 semi-annually.

The five-year review process should continue since contaminants remain on site above health-based levels and are not declining as expected in monitoring wells TRA-7 and USGS-65; insufficient data has been collected to date to statistically determine the significance of these results. It is expected that the OU 2-12 monitoring program and statutory five-year reviews will be incorporated into a comprehensive OU 2-13 monitoring program, currently scheduled for October 1997.

Should you have any questions regarding these comments, please contact me at your earliest convenience at (208) 373-0528.

Sincerely,



E. Jean Underwood
WAG 2 Manager
Remediation Bureau

EJU/jc

cc: Rick Poeton, EPA Region X
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