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Subject: Yellow Alert: Better Communication Could Have Prevented Notice of Violation

Project Hanford Lessons Learned

Title: Better Communication Could Have Prevented Notice of Violation

Date: December 9, 1998

Identifier: 1998-RL-HNF-0033

Lessons Learned Statement: Clear, precise, and complete communication with regulatory agencies is essential when dealing with issues within their purview. A party relaying a potentially controversial position to a regulator should receive confirmation of regulator agreement before proceeding with actions that may be subject to enforcement or punitive actions.

Discussion of Activities:

Summary: Tritium sampling of the 324 Facility exhaust stack was discontinued during plasma arc furnace testing. Washington Department of Health (WDOH) issued a Notice of Violation (NOV) because of less than adequate communications regarding the testing and about discontinuing sampling.

Details: A technology demonstration project involving the treatment and destruction of dismantled weapons components in the plasma arc furnace was conducted in the 324 Building in April 1998. In preparation for the project, a Notice of Construction (NOC) for the plasma arc furnace operations and an NOC modification addressing the addition of 20 curies of tritium to the stack discharge had been approved by WDOH in August 1997. The NOC is a type of permit issued by the WDOH for activities involving potential radioactive air emissions. The number of curies of tritium identified in the NOC modification was a conservative upper bound. The NOC permit did not require tritium sampling nor did the facility intend to sample for tritium. Due to the low potential to emit identified in the approved NOC modification, there were no requirements for tritium sampling based on 40 CFR 61.93(b) (4) (i).

The facility attempted to obtain concurrence from WDOH for not sampling on the day of the test but could not reach anyone by telephone. The only communication with WDOH was a brief voice mail message. The facility decided to discontinue tritium sampling during the demonstration run on the basis of being able to comply with the NOC and regulatory requirements and because tritium source term information was available to use in lieu of sampling data.

The plasma arc furnace operations were completed and tritium sampling was restored on April 17, 1998. WDOH issued a NOV on May 13, 1998 for lack of sufficient process description in the NOC with respect to the tritium source material and because tritium sampling had been discontinued without WDOH concurrence. The lack of detail in the NOC documentation prevented them from determining if controls and monitoring were adequate, from verifying that the source term was as low as indicated, and from

approving alternative monitoring procedures or methods.

Analysis: There was no environmental threat posed at any time during this operation. Several Core Functions of the Integrated Safety Management System could have prevented this NOV had they been more effectively implemented:

Identify Hazards and Requirements- The Major Subcontractor ensures hazard and environmental impact identification and analysis are performed and updated when facility life cycle and the associated hazards change. Although the amount of tritium released had been approved in NOC modifications, in this case the facility could have carried the environmental impact identification through confirmation by the regulators as the facility status changed with operation of the furnace.

Perform Work Within Controls - Processes and procedures are established and maintained for guiding internal communication between the various levels and functions of the PHMC Team, and for conducting external communication with regulatory agencies, community members, and stakeholders. The process for communicating with regulators broke down.

Recommended actions: Facilities with emission and discharge permits should ensure that they receive confirmation from regulators before changing monitoring or sampling processes regarding those permits.

Estimated Savings/Cost Avoidance: N/A

Priority Descriptor: YELLOW/Caution

Functional Categories (DOE): Environmental Protection, Functional Categories (Hanford specific): None

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Keyword(s): notice of violation, discontinued tritium sampling, communication

References: RL--PHMC-324FAC-1998-0003