



October 14, 2005
REL:05:024

U.S. Nuclear Regulatory Commission
Director, Office of Nuclear Material
Safety and Safeguards
Attn: Document Control Desk
Washington, D.C. 20555

Gentlemen:

Subject: Thirty-day Follow-up Report to September 17, 2005 Contamination Event Reported Under 10 CFR 70.50(b); Framatome ANP, Inc. Richland Facility; License No. SNM-1227; Docket No. 70-1257

On September 18, 2005 Framatome ANP, Inc. (FANP) notified the NRC Operations Center of an unplanned contamination event at its Richland fuel fabrication facility. The contamination required on-site workers to be prohibited from entry into a small area, not otherwise controlled, for more than 24 hours, thereby meeting the reporting criterion in 10 CFR 70.50(b)(1)(i). This 30-day follow-up report is being submitted in accordance with 10 CFR 70.50(c)(2).

Caller Identification

This incident was reported to the NRC Operations Center by R.E. Link, Manager, Environmental, Health, Safety and Licensing on September 18, 2005.

Date, Time, and Exact Location of Event

The incident occurred on September 17, 2005 at approximately 1300 hours local time. The release of contaminated liquid occurred to a small area of asphalt (<100 ft²) located directly adjacent to the outside west wall of the Uranium Dioxide (UO₂) Building Laboratory Addition. The UO₂ Building is located within the central portion of the site's restricted area.

Event Description

This event occurred during the annual preventive maintenance (PM) testing of smoke detectors in ventilation ductwork, specifically within the K-57 supply system serving the analytical laboratory areas within the UO₂ Building. The testing protocol called for artificial tripping of the smoke detectors to confirm that fans were shut down and the fire alarm was triggered. Although directed per the PM to trip smoke detector 2336, the craftsman mistakenly removed heat detector 2436, which applies to the K-58 exhaust system. Noting that detector 2436 was a heat detector (as opposed to a smoke detector) and that he lacked the proper equipment (a heat gun) required to artificially trip a heat detector, the craftsman retrieved the necessary heat gun

and proceeded to trip the heat detector. The heat detectors, when tripped, are set to shut down the corresponding supply fan, trigger the fire alarm, as well as activate the water fog deluge system in place to protect the ventilation system high efficiency particulate air (HEPA) filters in the event of a fire. Upon hearing the deluge system activate, the craftsman immediately recognized his mistake and removed the heat from the detector head, thereby deactivating the deluge system. By this time however the system had run an estimated 30 to 40 seconds, discharging an estimated 5 to 8 gallons of deluge water into the contaminated ductwork and then out the associated system drain. The system drains through the west wall of the building, discharging to the asphalt below via an elbow located approximately 10 feet above ground level.

Health and Safety Consequences

There were no adverse health and safety consequences to workers, the public, or the environment as a result of this incident. The solution was water determined by laboratory analysis to contain 113 ppm uranium. Access to the area was restricted from the time of discovery. Direct reading (GM meter) measurements of the wetted area revealed no detectable radioactivity; similar readings on the subsequently dried area indicated an on-contact radiological contamination count rate of 4,000 counts per minute (CPM). The dried area was covered with impermeable plastic sheeting until cleanup was achieved.

Event Response Actions

A number of actions were taken in direct response to this unplanned contamination event, as follows:

- The craftsman immediately notified his management and the plant health and safety organization.
- Plant health and safety technicians (HSTs) restricted access to the area via barricades and took initial radioactivity measurements.
- Samples of the liquid were submitted for laboratory analysis.
- The dried area was effectively covered pending enactment of a cleanup plan.
- The area was cleaned and released as meeting smearable radioactivity contamination limits.
- The impacted area (the asphalt plus a smaller impacted area on the building wall) has been sealed/painted as a further precautionary measure, both to more assuredly seal fixed contamination and to ease cleanup from any future deluge water release.

Other Actions

As previously noted, the NRC Operations Center was appropriately notified of this event. No other regulatory agencies were notified nor was a press release issued. The event did not

precipitate activation of the site's emergency response organization or meet the criteria for a declared emergency classification. As a new location of fixed contamination, the event site is being entered into the site decommissioning records maintained in accordance with 10 CFR 70.25.

Event Case

This incident was entered into, and investigated in accordance with, FANP's corrective action program. The cause of the incident was determined to be lack of information validation/ verification on the part of the craftsman. Upon encountering a heat detector in the course of conducting smoke detector PMs, the craftsman failed to question this conflicting occurrence by verifying proper selection of the detector. Instead he utilized this erroneous information to dictate his subsequent actions.

Corrective Actions to Prevent Recurrence

The incident was reviewed in depth with the craftsman directly involved and will be used going forward as a training example of how human performance issues can result in unplanned incidents.

The incident has been communicated to all members of the Technical Support and Maintenance organization and placed into the communications log.

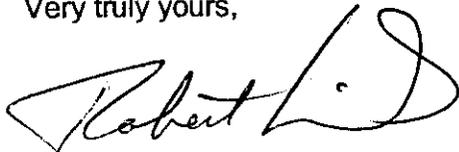
Both the governing PM and IRM (Instrument Repetitive Maintenance) procedures have been revised to emphasize full utilization of the data sheets associated with the individual PM and IRM procedures. These data sheets are a readily available resource for verification of proper conduct of the PM or IRM.

Integrated Safety Analysis Implications

The existence and operational aspects of the ventilation system deluge systems were evaluated as part of FANP's ISA, including their free-draining characteristics. Based on inventories of licensed material potentially associated with the deluge drains, their operation was not associated with accident scenarios of high or intermediate consequences.

If you have questions about this incident or FANP's associated response, please contact me on 509-375-8409.

Very truly yours,



R. E. Link, Manager
Environmental, Health, Safety, & Licensing

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