

Date: 11/08/96

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PN1-96-080

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region I staff on this date.

Facility:

Connecticut Yankee Atomic Power Company
Haddam Neck
Hartford, Connecticut

Licensee Emergency Classification:

☐ Notification of Unusual Event
☐ Alert
☐ Site Area Emergency
☐ General Emergency
☒ Not Applicable

Docket No.: 050-00213

License No.: DPR-61

Event No.: 31296

Event Location Code: POW

SUBJECT: POTENTIAL PERSONNEL OVEREXPOSURE TO AIRBORNE RADIOACTIVE MATERIALS

On November 2, 1996, two radiation workers entered the reactor cavity and fuel transfer canal area (an area known to contain high levels of loose surface radioactive contamination and high radiation) to inspect and collect debris in preparation for flooding the cavity to accomplish reactor defueling operations. During performance of the work, the workers caused loose radioactive contamination to become airborne. No respiratory protection equipment was required for the entry, making the workers vulnerable to a radiological condition that had the potential to result in exposure in excess of NRC occupational dose limits as specified in 10 CFR 20.1201.

While the workers were in the area (for about 15 to 20 minutes), they scraped paint and debris from contaminated surfaces. A small bag of paint chips, that they collected by hand (without any extremity monitoring), was later determined to measure at least 20 R/hour on contact. Because the plant has a past history of fuel degradation, transuranic radioactivity is expected to be the most significant factor relative to assessed exposures.

The Senior Resident began inspecting the event on November 2, and on November 4, the NRC dispatched an NRC Senior Radiation Specialist to assist the Senior Resident in evaluating the licensee's performance, followup actions, and the radiological consequences of this event. While specific radiological information is not yet available for the licensee to make a final dose assessment, preliminary NRC evaluation indicates that exposure in excess of the Annual Limit on Intake for transuranics (alpha emitters) may have occurred, which could result in a dose to the bone surfaces of greater than 50 Rem over 50 years. Exposures to the individuals due to external radiation, as measured by their personnel dosimetry devices, is reported to be less than 300 millirem.

The licensee has also engaged the services of certified health physics professionals from the University of Lowell to independently assess the personnel exposures to the workers. Fecal samples from the workers have been collected to aid assessment of the internal exposures. The individual workers are currently denied access to Radiologically Controlled Areas pending the licensee's final exposure evaluation. A licensee root cause and event review team is engaged in investigation of this event.

The reactor cavity is currently flooded in preparation for defueling operations. The resident staff is continuing to follow licensee activities and performance. The licensee has initiated additional corrective action to control radworker activities while continuing outage work.

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The licensee and NRC previously issued press releases on this event on November 5. An additional press release was issued by the licensee today.

The State of Connecticut has been informed.

Contact: Rogge, John (610-337-5146) White, John (610-337-5114)

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(Reactor Licensees)

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(Rev. August 1996)