

PRELIMINARY NOTIFICATION

Date: August 28, 1980

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-I-80- 124

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

Facility: United Nuclear Corporation (UNC)
UNC Recovery Systems
(DN 70-820)
Wood River Junction, Rhode Island

Subject: RADIOACTIVITY FOUND IN TEST WELLS AT UNC RECOVERY FACILITY

Environmental water samples taken from test wells located in close proximity to the licensee's effluent waste lagoons have shown the presence of radionuclides. This fact coupled with the fact that United Nuclear Corporation is decommissioning its uranium scrap recovery facility located near Wood River Junction, Rhode Island, has created much local interest. This subject has received the attention of the Governor of Rhode Island and the Town of Charlestown, Rhode Island. Meetings involving the Governor of Rhode Island, the licensee, and NRC's Office of Nuclear Material Safety and Safeguards were held on July 8, and July 30, 1980, in which this subject was discussed. It was also discussed during public meetings in the Town of Charlestown, Rhode Island, on July 8, 1980, and Providence, Rhode Island, on July 30, 1980.

Analyses of monthly samples from these test wells performed by the licensee as a result of a license condition imposed in December 1978 indicates the presence of byproduct material radionuclides. On the basis of these analyses, the average concentrations of radionuclides in the groundwater on United Nuclear's property are less than 10% of the unrestricted area concentrations specified in Appendix B, Table II of Title 10, Code of Federal Regulations, Part 20, except for strontium-90 which averages about 40% of the maximum permissible concentration. Samples from the lagoons and several test wells have been collected by Region I and are being analyzed at the DOE's Idaho Radiological and Environmental Services Laboratory. Preliminary analyses of these samples indicate that the radionuclides present in the ground water do not exceed 10% of 10 CFR 20 concentrations.

Current information shows the aquifer being tested flows under United Nuclear's property and then into the Pawcatuck River. Gross alpha and beta analyses of water from the river above and below the United Nuclear property are indistinguishable from background. The contaminants in the groundwater do not appear to pose a threat to a water supply.

The United Nuclear plant at Wood River Junction was authorized by Special Nuclear Material License No. 777 from May 1966 through July 1976 to recover uranium from fuel, containing microcurie quantities of byproduct material, used in low power critical experiments operated by the Atomic Energy Commission. When the licensee applied for renewal of his license, he did not request permission to continue this operation; and when the license was renewed in 1976, it did not include this authorization. An NRC inspection concerning the source of the radionuclide contamination of the aquifer flowing beneath the plant has disclosed that it likely came from waste from this uranium recovery process. The inspection also disclosed that uranium containing byproduct material was processed after 1976. NRC is considering what enforcement action would be appropriate with respect to this matter.

PRELIMINARY NOTIFICATION

Media interest has been high. Region I plans to issue a press release. The State of Rhode Island has been notified, and plans to issue a press release.

This Preliminary Notification is issued for information only.

The NRC's Office of Nuclear Material Safety and Safeguards became aware of the presence of byproduct material radionuclides in the test wells as a result of analysis of licensee test data.

The NRC is contracting with a geohydrologist to determine the length of time it will take for the aquifer to purge itself to background levels of radioactivity.

Contact: W. W. Kinney, 488-1213 H. W. Crocker, 488-1217 G. H. Smith, 488-1200

DISTRIBUTION: (Facsimile Transmission Times Noted)

H ST BLDG 2:25
 Chairman Ahearne

Commissioner Gilinsky
 Commissioner Bradford
 Commissioner Hendrie
 ACRS
 S. J. Chilk, SECY
 C. C. Kammerer, CA
 (For Distribution)

PHILLIPS BLDG 2:30
 H. R. Denton, NRR
 R. H. Vollmer, NRR
 R. J. Mattson, NRR
 D. F. Ross, NRR
 D. Eisenhut, NRR
 S. H. Hanauer, NRR

MARYLAND NATIONAL
 BANK BUILDING 2:27
 W. J. Dircks, EDO
 C. Michelson, AEOD
 J. J. Fouchard, PA
 N. M. Haller, MPA
 R. G. Ryan, OSP
 H. K. Shapar, ELD

WILLSTE BLDG 2:32
 J. G. Davis, NMSS
 R. Budnitz, RES

LANDOW BLDG (Fax by HQ)
 (6 MIN/PAGE)
 J. J. Cummings, OIA

IE:XOOS 2:15
 NRC/TMI Program
 Office 3:17

Region II 2:50
 Region III 2:52
 Region IV 3:27
 Region V 3:11

RI Resident Sites

(MAIL)
 R. Minogue, SD
 IE:XOOS
 Document Mgt. Br.

