

May 11, 2001

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-IV-01-021

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 IV staff on this date.

Facility

Nebraska Public Power District
Sutherland, NE
Nebraska Licensee
License No. NE-10-03-03
Nebraska Department of Health & Human
Services

Licensee Emergency Classification

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

SUBJECT: OVEREXPOSURE TO INDIVIDUAL MEMBER OF THE PUBLIC

DESCRIPTION: On May 11, 2001, the Nebraska Department of Health and Human Services (NDHHS) notified NRC's Operations Center of an overexposure to an individual member of the public. NDHHS was informed on May 8, 2001, by Nebraska Public Power District, a Nebraska licensee, that four workers had been working at a coal plant in Sutherland, Nebraska, in an area near a coal chute where a fixed nuclear gauge was installed. It was reported that the workers did not follow established procedures and entered the chute with the source exposed. NDHHS initially notified the NRC on May 8, 2001, of the event. The licensee originally stated that the workers were radiation workers, and that dose estimates were calculated to be 2250, 1361, 611, and 450 mrem, respectively, based on the source strength and time in the radiation area. The fixed nuclear gauge (Texas Nuclear Type 57157C, source type holder 5197) contained 1.4 gigabequerel (200 millicuries) of cesium-137 (Serial Number B5417) and the radiation level was measured to be 450 mrem/hour. The individuals were in the area for approximately 5 hours.

On May 11, 2001, the licensee notified the NDHHS that they had contracted a certified health physicist to do another dose study. It was determined that the original dose estimates had not included the 1/4 inch steel shield and had not adequately characterized the geometry of the source. The health physicist calculated the actual exposures to be 285, 182, 87, and 57 mrem, respectively. It was also determined that three of the workers were not radiation workers and one of the non-radiation workers received a dose of 285 mrem, a dose exceeding the regulatory limit of 100 mrem to individual members of the public. The other two non-radiation workers received doses below the regulatory limit. The three non-radiation workers were working under contract to the licensee. The State plans to conduct a follow up inspection.

NRC Operations Center received notification of this event from the State of Nebraska by telephone on May 8, 2001, at 4:22 p.m. (EDT), and the updated information on May 11, 2001, at 2:30 p.m. (EDT).

Region IV has informed NMSS, OSTP and OEDO.

This information has been discussed with the State and is current as of 2:00 p.m. (CDT) on May 11, 2001.

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