

February 8, 2002

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-IV-02-08

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

Transalta Centralia Mining LLC
Centralia, Washington
License No.: WN-I0241-1
(Agreement State Licensee)

Licensee Emergency Classification

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

SUBJECT: MECHANICAL FAILURE OF A RONAN MODEL SA-4 GAUGING DEVICE

DESCRIPTION:

On February 7, 2002, the Washington Department of Health (WDOH), Division of Radiation Protection, notified the NRC of a mechanical failure of a Ronan Engineering Company Model SA-4 gauging device. Transalta Centralia Mining LLC, a WDOH licensee, reported to WDOH that the mechanical failure occurred on February 6, 2002. The device is specifically licensed and is used for density process measurements. The device houses a cesium-137 sealed source, Amersham Model CDC.711M, with a source activity of 63 gigabecquerels (1.7 curies). The source is normally mounted at the end of a source rod and secured by pins. When not in operation, the rod with source is raised to place the source into a safe position inside the storage shield.

On February 6, 2002, when the source was being returned to its shielded position so that maintenance personnel could work in the area, an operator pulled the source rod, complete with source, entirely out of the shield. The operator realized that a problem existed and promptly informed the licensee's radiation safety officer (RSO). The RSO surveyed the rod and recognized that the source was still connected. He immediately isolated the source and notified the WDOH. It was noted that the Ronan device has had similar failures in the past at this licensee's site.

The WDOH dispatched inspectors to the site to conduct interviews, time motion studies, and exposure measurements to assess personnel exposures. In addition, the WDOH assisted the licensee in assessing the need for additional shielding. Initial readings on the source rod, with minimal shielding in place, indicated a surface dose rate that was greater than 5000 mrem per hour (mrem/hr), and 3000 mrem/hr at a distance of 6 inches. Bags of lead shot were used to reduce the dose rate from 50 mrem/hr to 0.25 mrem/hr on the exterior of the storage building. Initial dose estimates for the operator was 140 mrem for the whole body and 340 mrem for the extremities.

Region IV received notification of this occurrence by e-mail from the State of Washington on February 7, 2002.

Region IV has informed NMSS, STP, OEDO, and RIV SLO,

This information has been discussed with WDOH and is current as of 3:30 p.m. (CT) on February 8, 2002.

CONTACTS: Linda McLean Vivian Campbell
(817) 860-8116 (817) 860-8143