

July 18, 2001

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-IV-01-032

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**

Nortech Environmental  
Fairbanks, Alaska  
Docket: Not Applicable  
License No.: General License

**Licensee Emergency Classification**

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

SUBJECT: STOLEN X-RAY FLUORESCENCE DEVICE

DESCRIPTION: On July 16, 2001, Nortech Environmental in Fairbanks, Alaska, notified the NRC Operations Center of a stolen x-ray fluorescence device.

The NRC Operations Center was informed that a Niton XL Model 309 x-ray fluorescence device (Serial No. U1002) containing approximately 518 megabequerels (14 millicuries) of cadmium-109 had been stolen, along with several other pieces of lab equipment and computers, some time during the previous weekend. It was discovered to be missing at 8:00 am AKDT on July 16, 2001. The theft was reported to the police and to Niton.

This device is a hand-held instrument used to analyze lead in paint. The Sealed Source and Device Registry notes that the external radiation levels normalized to 50 millicuries of activity in the device with the shutter closed are less than 0.05 mR/hr at 5 cm. External radiation levels normalized to 50 millicuries of activity in the device with the shutter open are less than 2.5 mR/hr at 5 cm. Cadmium-109 emits relatively weak photon energies thereby limiting exposure potential to users and the general public. With the shutter closed, radiation levels surrounding the device are indistinguishable from background.

The State of Alaska has been informed.

Region IV received notification of this occurrence by e-mail from the NRC Headquarters Duty Officer on July 16, 2001. Region IV has informed NMSS and the IAT.

This information has been discussed with the licensee and is current as of 7:00 am (CDT) on July 18, 2001.

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