

Date: October 9, 1990

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-I-90-89

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:	Licensee Emergency Classification:
Western Stress, Inc.	___ Notification of Unusual Event
1602 Hylton Road	___ Alert
Pensauken, New Jersey	___ Site Area Emergency
Docket No. 030-30175	___ General Emergency
License No. 42-26900-01	<u>X</u> Not Applicable

Subject: RADIOGRAPHY SOURCE DISCONNECT WITH PROBABLE WHOLE BODY AND EXTREMITY OVEREXPOSURE

On October 5, 1990 at approximately 7:45 p.m., Western Stress Incorporated, a Region IV licensee, notified the Headquarters Operation Center of a radiographic source disconnect. The incident occurred at a field location in Bordentown, New Jersey. Activities were being conducted by Western Stress personnel from their field office in Pennsauken, New Jersey. The radiographer reported the incident to the Corporate Radiation Safety Officer in Houston, Texas, who then contacted NRC Headquarters. After a telephone briefing, two NRC Region I inspectors were dispatched to the site to verify radiological controls and monitor source recovery operations.

The radiographer had been performing exposures of welds at the base of a 300,000 gallon waste water storage tank. The apparatus being used was a Tech-Ops Model 920 radiographic camera with a 14-foot source guide tube. A tungsten collimator had been positioned on the end of the source guide tube. The end of the source guide tube was clamped to a stand that was magnetically attached to the tank wall. The radiographic camera remained on the concrete pad for the exposures. After cranking out the 80 curie Ir-192 source for an exposure approximately 10 feet above the base of the tank, the radiographer heard the collimator fall. He attempted to crank the source back into the camera, but radiation survey meter indications did not indicate source recovery. Subsequently, the radiographer removed his dosimetry (TLD and 200 mR SRD) and walked up to the end of the source guide tube. He was carrying his survey meter, but failed to observe the reading. He grasped the end of the source guide tube, removed the collimator and unscrewed the nozzle of the guide tube. The source, which was at the end of the guide tube, fell to the ground and the radiographer immediately left the area. Personnel were evacuated from the area and a bag of lead shavings was dropped on the source for shielding.

Upon notification, personnel from Amersham (the manufacturer of the camera) recovered the source at 2:08 a.m. on October 6, 1990. Exposures to the two Amersham recovery personnel were 72 mRem and 2 mRem. It was postulated that the connector ball was sheared from the source when the collimator fell.

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Initial exposure estimates to the radiographer, based upon source activity and exposure time estimates, are from 5 to 16 Rem to the whole body, and from 250 to 1,000 Rem to the right hand. The individual has been referred for examination by a physician and blood sample analysis.

The State of New Jersey has been notified. NRC Region IV has been notified.

The information is complete and accurate as of 10:00 a.m. on October 9, 1990.

CONTACT: M. Roberts (FTS)346-5094 J. White (FTS)346-5102

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Region I Form 83
(Rev. April 1988)