PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PNO-IV-99-047

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 Region IV staff in Arlington, Texas on this date.

Facility	**Licensee Emergency Classification**
Frac Services, Inc.	Notification of Unusual Event
Frac Services, Inc.	Alert
Washington,Oklahoma 73093	Site Area Emergency
	General Emergency
	X Not Applicable

Subject: STOLEN DENSITY GAUGE (Generally Licensed Device)

On October 25, 1999, at approximately 5:15 p.m. (CDT), representatives of Frac Services, Inc. (FSI) provided telephone notification to the Region IV office of the theft of a density gauge. Representatives of FSI subsequently provided a telephone report to the NRC Operations Center. The density gauge was a Texas Nuclear Corporation (TN Technologies, Inc.) Model 5192 (Serial No. B6670), which houses a 7.4 gigabequerel (200 millicuries) cesium-137 source. The gauge is distributed as a generally-licensed device. The gauge is used to measure the density of fluids or materials and is mounted to a pipe spool; there is no shutter mechanism. The source head and detector are mounted to a 3-foot section of pipe which is used for in-line process measurements.

FSI representatives reported that the gauge and pipe spool are painted gray and that the pipe section and gauge do not have a label identifying the owner. FSI representatives reported that following use of the device on October 21, 1999, they experienced problems with a vehicle used to tow the density gauge and other equipment while en route to FSI's office. During transport, the gauge was chained to the bed of a trailer, with a lock attached to the chain. At approximately 3:00 a.m. (CDT) on Thursday, October 21, FSI employees noted that the trailer had a flat tire, and they stopped and left the trailer in a parking lot near Calumet, Oklahoma. FSI employees later checked on the trailer and equipment at 8:30 p.m. on Thursday and found the equipment and trailer as they left it earlier that morning. On Friday, October 22, FSI employees returned to the parking lot to replace the tire and return the equipment to FSI; however, the trailer and equipment was missing. Interviews of employees at the facility that owned the parking lot revealed that the trailer was missing when the employees reported for work between 7:00 and 7:30 a.m. on Friday morning. FSI employees also interviewed residents in the area and no information about the missing trailer was identified. FSI subsequently assumed that the trailer was stolen.

FSI has notified the Kingfisher and Canadian County Sheriff Departments of the theft and posted notices in the community offering a reward for return of the trailer. The posted notices indicate that the trailer contains a radioactive source which may be hazardous to those who handle it. FSI has also notified the gauge manufacturer of the theft.

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Region IV contacted the gauge manufacturer, TN Technologies, Inc., on October 26 and was informed that the Model 5192 density gauge is routinely fitted with an engraved label on the source housing. The label identifies the manufacturer, source and source strength. Although the manufacturer's representative had not seen this particular device, he indicated that the source housing and detector are normally welded to the pipe spool. Typical radiation levels from this type of device were reported as 2-3 milliroentgen per hour at a distance of 30 centimeters from the back of the source housing, and 3.8 milliroentgen per hour at a distance of 30 centimeters from the back of the detector.

Region IV received this information by telephone at 5:15 p.m. (CDT) on October 25, 1999. Region IV has notified OEDO, NMSS, and the State of Oklahoma. This information has also been reviewed with an NMSS IAT member. This information is current as of 9:00 a.m. (CDT), October 26, 1999.

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