

## EVENT RATING FORM (ERF)

<b>THE INTERNATIONAL NUCLEAR EVENT SCALE (INES)</b>														
<b>EVENT TITLE</b> Potential Overexposure to Members of the Public											<b>EVENT DATE</b> 2004/07/09			
<b>RATING</b>	<b>RATING DATE</b>	<b>OUT OF SCALE</b>	<b>DEVIATION</b>	<b>INCIDENT</b>			<b>ACCIDENT</b>				<b>FACILITY TYPE</b>			
PROVISIONAL <input checked="" type="checkbox"/>			0	1	2	3	4	5	6	7	Power Reactor <input type="checkbox"/>	Research Reactor <input type="checkbox"/>		
FINAL <input type="checkbox"/>	2004.07.20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Radwaste Facility <input type="checkbox"/>	Radiation Source <input checked="" type="checkbox"/>						
<b>COUNTRY</b> USA			<b>FACILITY NAME</b> Schlumberger Technology Corp.								Irradiation <input type="checkbox"/>	Transportation <input type="checkbox"/>		
<b>LOCATION</b> Pecos County, Texas											Fuel Fabrication <input type="checkbox"/>	Fuel Reprocessing <input type="checkbox"/>		
											Research Facility <input type="checkbox"/>	Mining/Milling <input type="checkbox"/>		
											Enrichment Facility <input type="checkbox"/>	Other <input type="checkbox"/>		
<b>OFF-SITE IMPACT</b>											<b>YES</b>	<b>NO</b>		
RELEASE BEYOND AUTHORIZED LIMITS											<input type="checkbox"/>	<input checked="" type="checkbox"/>		
OVEREXPOSURE OF MEMBERS OF PUBLIC											<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>ON-SITE IMPACT</b>														
CONTAMINATION SPREAD											<input type="checkbox"/>	<input checked="" type="checkbox"/>		
WORKER OVEREXPOSURE											<input type="checkbox"/>	<input checked="" type="checkbox"/>		
DAMAGE TO RADIOLOGICAL BARRIERS											<input type="checkbox"/>	<input checked="" type="checkbox"/>		
DEGRADATION OF DEFENSE IN-DEPTH											<input checked="" type="checkbox"/>	<input type="checkbox"/>		
PERSON INJURED PHYSICALLY OR CASUALTY											<input type="checkbox"/>	<input checked="" type="checkbox"/>		
IS THERE A CONTINUING PROBLEM											<input type="checkbox"/>	<input checked="" type="checkbox"/>		
PRESS RELEASE ISSUED (IF YES, PLEASE ATTACH)											<input type="checkbox"/>	<input checked="" type="checkbox"/>		
<b>EVENT DESCRIPTION</b>														
<p>On July 12, 2004, the Texas Department of Health, Bureau of Radiation Control (the State) notified Nuclear Regulatory Commission (NRC) of a potential exposure to members of the general public from an unshielded cesium-137 (Cs-137) collimated sealed source. The Cs-137 source was used for well logging operations in Pecos County, Texas, and contained 63 gigabecquerel (1.7 curie) of radioactivity. This is a Category 3 source (IAEA-TECDOC-1344, Categorization of Radioactive Sources, July 2003)</p> <p>The Texas licensee notified the State on July 12, 2004, of the missing sealed source from a well logging tool. The licensee reported that a well logging crew was using a rig without a floor at a well site in Pecos County, Texas. During the evening of July 9, 2004, the crew moved to a new site. While setting up for work at the new site, the crew realized that the source was missing from the well logging tool.</p> <p>The crew returned to the original site and found the source in mud approximately 10-15 feet from the previous rig location. It was suspected that the source was missing for 24-36 hours.</p>														

Licensee management was dispatched on July 13 to assess potential doses to the crew and members of the public and to investigate the event. The State also dispatched an inspector to the site.

On July 15, the State provided an update of the investigation, and reported that a person on the drilling crew (defined by the U.S. regulations as a member of the public) may have picked up the source by hand. An initial analysis resulted in a dose estimate of 0.6 gray (60 rad) to the individual's hand. The regulatory limit for an individual member of the public is 1 mSv (0.1 rem). Additional analyses continue in order to determine whether any other members of the public were exposed. The licensee is sending members of the well logging crew to a local hospital for blood work. The investigation has determined that no radiation surveys were performed, and written operating procedures had not been followed by the logging crew. The licensee and the State are still investigating the event, and the State will keep NRC informed of its findings.

#### RATING JUSTIFICATION AND DIFFICULTIES ENCOUNTERED

The provisional rating for this event is Level 2.

Two rating methods were considered using the Draft Additional Guidance for the INES National Officers for Pilot Use and Feedback, dated 26 May 2004.

1) Result of Level 2 using rating of unplanned exposures to members of the public based on individual doses. Section 5.2.1, Criteria for the assessment of the minimum rating (one individual exposed), states that Level 2 is the minimum Level for events that result in exposure to a member of the public in excess of 10 mSv (1 rem).

2) This event is also Level 2 based on based on degradation of defence in depth, Section 5.4.2, Table 3.

#### CONTACT PERSON FOR FURTHER INFORMATION

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