

EVENT RATING FORM (ERF)

THE INTERNATIONAL NUCLEAR EVENT SCALE (INES)															
EVENT TITLE Potential Shallow Dose Overexposure											EVENT DATE 2005.03.18				
RATING	RATING DATE		OUT OF SCALE	DEVIATION	INCIDENT			ACCIDENT				FACILITY TYPE			
PROVISIONAL <input checked="" type="checkbox"/>	2005.18.03		<input type="checkbox"/>	0	1	2	3	4	5	6	7	Power Reactor <input type="checkbox"/>		Research Reactor <input type="checkbox"/>	
FINAL <input type="checkbox"/>	2005.18.03		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Radwaste Facility <input type="checkbox"/>		Radiation Source <input checked="" type="checkbox"/>	
COUNTRY USA				FACILITY NAME Carson, CA								Irradiation <input type="checkbox"/>		Transportation <input type="checkbox"/>	
LOCATION Carson, CA												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"/>	
OFF-SITE IMPACT											YES	NO			
RELEASE BEYOND AUTHORIZED LIMITS											<input type="checkbox"/>	<input checked="" type="checkbox"/>			
OVEREXPOSURE OF MEMBERS OF PUBLIC											<input type="checkbox"/>	<input checked="" type="checkbox"/>			
ON-SITE IMPACT															
CONTAMINATION SPREAD											<input type="checkbox"/>	<input checked="" type="checkbox"/>			
WORKER OVEREXPOSURE											<input checked="" type="checkbox"/>	<input type="checkbox"/>			
DAMAGE TO RADIOLOGICAL BARRIERS											<input type="checkbox"/>	<input checked="" type="checkbox"/>			
DEGRADATION OF DEFENSE IN-DEPTH											<input type="checkbox"/>	<input checked="" 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"/>			
EVENT DESCRIPTION															
<p>On March 11, 2005, a California industrial radiography licensee notified the state that two of its employees may have incurred an occupational overexposure. The licensee reported that two radiographers were conducting radiographic operations at a refinery located in Carson, CA using an Industrial Nuclear Corporation Model IR 100 exposure device. The device contained an iridium-192 sealed source with an activity of approximately 3.3 terabecquerels (90 Curies).</p> <p>The licensee reported that subsequent to performing several radiographic exposures (approximately 10), the radiographer approached the camera without any survey instrumentation and disconnected the guide tube. After disconnecting the guide tube, it became apparent to the radiographer and his assistant that there was a problem because their survey instruments were reading off-scale. Additionally, the radiography crew checked their pocket reading dosimeters and observed they were reading off-scale. The radiographer used pliers to successfully retract the source into the shielded position.</p> <p>On March 17, 2005, the State of California provided the Nuclear Regulatory Commission (NRC) with updated dosimetry results that revealed that the radiographer and his assistant received a</p>															

whole body dose of 16 millisievert (1.6 rem) and 27 millisievert (2.7 rem) respectively. Additionally, dose reconstruction results indicated that the radiographer may have received a shallow dose equivalent of 550 millisievert (55 rem) to the hands, a dose in excess of the NRC's applicable limit of 500 millisievert (50 rem). There were no reported physical abnormalities related to the exposure.

The radiographic device will be sent to the manufacturer for evaluation and repair.

The State of California will be conducting an investigation of the event.

RATING JUSTIFICATION AND DIFFICULTIES ENCOUNTERED

The provisional rating for this event is Level 2.

A Level 2 is warranted for exposure to an individual worker in excess of the statutory limits. See Section 5.2.1, "Draft Additional Guidance for the INES National Officers for Pilot Use and Feedback," Revision 26, May 2004.

CONTACT PERSON FOR FURTHER INFORMATION

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