

INES Event Rating Form

Event Title:	Overexposure to Radiographer
Date of Event:	2014-04-09
Event Location / Facility Name:	Marietta, Ohio / Acuren Inspection, Inc.
Event Country:	United States
Type of Event:	Radiation Source

INES Rating:	2
Status of Rating:	Final
Date of Rating:	2014-04-11

Impact on People and Environment		
<i>Release beyond authorized limits?</i>	<input type="checkbox"/>	
<i>Overexposure of a member of the public?</i>	<input type="checkbox"/>	
<i>Overexposure of a worker?</i>	<input checked="" type="checkbox"/>	
Impact on the Radiological Barriers and Controls at Facilities		
<i>Contamination spread within the facility?</i>	<input type="checkbox"/>	
<i>Damage to radiological barriers (incl. fuel damage) within the facility?</i>	<input type="checkbox"/>	
Degradation of Defence In-Depth?	<input type="checkbox"/>	
Person injured physically or casualty?	<input type="checkbox"/>	
Is there a continuing problem?	No	

Event Description¹:

A lead radiographer approached the end of the guide tube having assumed that the source had already been retracted into the shielded camera. After approximately 90 seconds the assistant radiographer entered the area. The assistant radiographer's alarming rate meter and survey meter indicated the presence of radiation and the two individuals left the area. The lead radiographer was wearing a whole body dosimetry badge which was sent for emergency processing. The dosimeter was measured by the vendor at 8.36 mSv (836 mrem). Based on re-enactments during the State of Ohio's reactive inspection, the licensee estimated the lead radiographer's whole body dose to be 130 mSv (13 rem), which exceeds the statutory limit of 50 mSv (5 rem) to the whole body. The licensee also estimated the lead radiographer's extremity dose to the hand to be 65 mSv (6.5 rem), which does not exceed the statutory limit of 500 mSv (50 rem) to an extremity. The licensee is assigning the calculated whole body and extremity doses to the individual because the lead radiographer was wearing the dosimetry badge on his belt; therefore, the badge was not optimally positioned to record his dose from the source. The State of Ohio made the following observations during their reactive inspection: the lead radiographer's alarming rate meter had a dead battery; the radiographers did not utilize a source collimator causing the source to be unshielded; the lead radiographer's survey meter was not fully functional; and the lead radiographer had not tested his survey meter for proper response on the day of the event. NRC EN50014.

Justification of INES Rating²:

A Level 2 is warranted for exposure of a worker in excess of statutory annual dose limits. See Section 2.3.1 INES User's Manual 2008 Edition (IAEA-INES-2009)
http://www-pub.iaea.org/MTCD/publications/PDF/INES-2009_web.pdf

Contact Person for Further Information	
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¹ If/when the ERF is published on the IAEA NEWS website, the first 300 characters of the event description will appear on the front page of the website.

² If/when the ERF is published on the IAEA NEWS, the contents of the Justification of the INES Rating field will not appear to users from the general public.

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Further Info on Web (URL):	Click here to enter text.
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Annexes:

Title	Category	Description (optional)
Click here to enter text.	Choose an item.	Click here to enter text.
Click here to enter text.	Choose an item.	Click here to enter text.