

INES Event Rating Form (ERF)

Version 1

Sender's Name:	Todd Smith
Sender's Organization:	Nuclear Regulatory Commission (NRC) (United States of America)
Event Title:	Worker Exceeded Annual Whole Body Dose Limit
Event Date:	2021-10-06
Location / Facility:	Pittsburgh, PA / Diamond Technical Services
Event Country:	United States of America
Event Type:	Radiation Source
INES Rating:	2 - Incident (Final)
Rating Date:	2021-10-19

Impact on people and the environment

Release beyond authorized limits?	No
Overexposure of a member of the public?	No
Overexposure of a worker?	Yes

Impact on the radiological barriers and controls at facilities

Contamination spread within the facility?	No
Damage to radiological barriers (incl. fuel damage) within the facility?	No

Degradation of Defence In-Depth?	No
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Other information

Person injured physically or casualty?	No
Is there a continuing problem?	No

Event Description

A radiographer received approximately 0.093 Sv (9.3 rem) when a radiography source was unable to be retracted into an industrial radiography device. The radiographer handled the guide tube and collimator with the 3.367 TBq (91 Ci) Ir-192 source in an unshielded position. Dose reconstruction and event re-enactments were conducted to determine how the disconnect occurred. The cause of the event is believed to be a bent pin on the control cable. The licensee is performing testing and other actions to verify that this is the cause. After the radiographer retreated from the source, a Radiation Safety Officer with source retrieval authorization was dispatched to the location and recovered the source. Neither the Radiation Safety Officer nor the assistant radiographer received doses that exceeded the regulatory limit. The licensee committed to the mandatory re-training of employees. The dose to the radiographer exceeded the U.S. regulatory limit for the annual whole body dose of 0.05 Sv (5 rem). NRC EN55511

Rating Justification

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

Press Release Attached:	No
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Technical Document Attached:	No
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Further Information on Web:

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