# UNITED STATES NUCLEAR REGULATORY COMMISSION OFFICE OF NEW REACTORS OFFICE OF NUCLEAR REACTOR REGULATION OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS OFFICE OF FEDERAL AND STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS WASHINGTON, D.C. 20555

May 12, 2014

NRC INFORMATION NOTICE 2014-05: VERIFYING APPROPRIATE DOSIMETRY

**EVALUATION** 

## **ADDRESSEES**

All licensees. All Radiation Control Program Directors and State Liaison Officers.

## **PURPOSE**

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice (IN) to alert licensees to a potential for error in evaluating doses following the processing of personnel dosimetry. It is expected that recipients will review this IN for applicability to their facilities and consider actions, as appropriate. However, suggestions contained in this IN are not new NRC requirements; therefore, neither specific action nor written response is required. The NRC is providing this IN to the Agreement States for their information and for distribution to their licensees as appropriate.

# **DESCRIPTION OF CIRCUMSTANCES**

A licensee had been using film dosimetry provided by a dosimetry processor. The processor would process the film at the end of the monitoring period, and report the dose evaluations to the licensee.

During a routine review of its dosimetry records, the licensee discovered that its film data was not being evaluated for the entire range of radiation types that the licensee's radiation workers may have encountered. The dosimetry processor investigated and re-evaluated the data, and determined that some doses had been underestimated. In this case, there were no instances of large dose underestimation.

#### DISCUSSION

It is the licensee's responsibility to ensure, through communication with the dosimetry processor and/or specification in procurement or contract documents, that the processor is evaluating dosimetry for the type of radiation that most closely approximates the type of radiation that the licensee is encountering.

The dosimetry processor in this case was fully accredited. However, by way of reminder, the NRC would like to emphasize the accreditation requirements in 10 CFR 20.1501(d):

All personnel dosimeters (except for direct and indirect reading pocket ionization chambers and those dosimeters used to measure the dose to the extremities) that require processing to determine the radiation dose and that are used by the licensees to comply with § 20.1201, with other applicable provisions of this chapter, or with conditions specified in a license must be processed and evaluated by a dosimetry processor —

- (1) Holding current personnel dosimetry accreditation from the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology; and
- (2) Approved in this accreditation process for the type of radiation or radiations in the NVLAP program that most closely approximates the type of radiation or radiations for which the individual wearing the dosimeter is monitored.

# CONCLUSION

The above discussion is intended to emphasize the licensee's responsibility for ensuring that all applicable factors that may affect the accuracy of a dosimetry evaluation, whether provided by an outside or in-house dosimetry processor, have been considered and have been taken into account. These include a proper characterization of the radiation fields that are to be monitored.

In addition, the licensee should review:

- the ability of the dosimetry processor to provide the needed service;
- the currency of the processor's NVLAP accreditation;
- the NVLAP accreditation for providing services in the radiation categories relevant to the licensee; and,
- the possible need to make adjustments to accommodate any significant differences between the radiation fields at the licensee's facility and those used in NVLAP testing.

All of these factors should be evaluated periodically to ensure that all of these factors are being considered and any necessary adjustments are made.

# **CONTACT**

This IN requires no specific action or written response. If you have any questions about the information in this notice, please contact one of the technical contacts listed below or the appropriate regional office.

#### /RA/

Michael C. Cheok, Director Division of Construction Inspection and Operational Programs Office of New Reactors

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Enclosure: FSME List of Recently

**Issued Generic Communications** 

#### /RA Jim Andersen for/

Marissa G. Bailey, Director Fuel Cycle Safety and Safeguards Office of Nuclear Material Safety and Safeguards

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## ADAMS ACCESSION NO.: ML14028A513

OFC	RMSB	RES	RMSB	ASPB
NAME	AMcIntosh	SSherbini	CEinberg	DWhite
DATE	1/30/14	2/10/14	2/25/14	2/18/14
OFC	RES	FSME/DWMEP	NRR	NMSS
NAME	SRichards	LCamper	UShoop	SAtack
DATE	2/19/14	2/24/14	2/27/14	2/18/14
OFC	NMSS	NRO	OGC	NRR/DPR
NAME	JAndersen for MBailey	MCheok	SChidakel via email	SBahadur
DATE	4/16/14	4/21/14	4/08/14	4/21/14
OFC	NRR/DPR	FSME/MSSA		
NAME	LKokajko	LDudes		
DATE	4/23/14	5/12/14		

OFFICIAL AGENCY RECORD

# /RA Jim Andersen for/

Marissa G. Bailey, Director Fuel Cycle Safety and Safeguards Office of Nuclear Material Safety and Safeguards

List of Recently Issued Office of Federal and State Materials and Environmental Management Programs Generic Communications						
Date GC No.		Subject	Addressees			
04/28/2014	IN-2014-06	Damage of Industrial Radiographic Equipment due to Falling Equipment and Improper Mounting	All U.S. Nuclear Regulatory Commission material licensees possessing industrial radiographic equipment, regulated under 10 CFR Part 34; all Agreement States Radiation Control Program Directors; all holders of and users of a transportation package certificate of compliance under Title 10 of the Code of Federal Regulations (10 CFR) Part 71, "Packaging and Transportation of Radioactive Material," that possess industrial radiographic equipment regulated under 10 CFR Part 34, and all holders of or applicants for an early site permit, standard design certification, standard design approval, manufacturing license, or combined license under 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants."			
04/16/2014	RIS-2014-02	Withdrawal of NRC Generic Letter 95-08, "10 CFR 50.54(p) Process for Changes to Security Plans Without Prior NRC Approval"	All holders of and applicants for construction permits or operating licenses for nuclear power reactors under the provisions of Title 10, "Energy," of the Code of Federal Regulations (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities." All holders of and applicants for a combined license, standard design approval, or manufacturing license under 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Reactors." All applicants for a standard design certification, including such applicants after initial issuance of a design certification rule.			

List of Recently Issued Office of Federal and State Materials							
and Environmental Management Programs Generic Communications							
Date	GC No.	Subject	Addressees				
03/13/2014	RIS-2014-03	Notice of 10 CFR Part 37 Implementation Deadline for NRC Licensees	All holders of and applicants for U.S. Nuclear Regulatory Commission (NRC) licenses that possess Category 1 and Category 2 quantities of radioactive material, NRC Master Material Licensees, Agreement State Radiation Control Program Directors, and State Liaison Officers				
03/04/2014	IN-99-03, Rev. 1	Exothermic Reactions Involving Dried Uranium Oxide Powder (Yellowcake)	All operating uranium recovery facilities that produce uranium oxide powder (yellowcake). All Agreement States with the authority to regulate uranium mills (i.e., Utah, Colorado, Texas, Ohio, Illinois, and Washington).				
01/10/2014	RIS-2014-01	Regulatory Requirements for Withholding of Proprietary Information from Public Disclosure	All distributors of general license devices submitting a request that information be withheld from public disclosure under the provisions of Title 10 of the <i>Code of Federal Regulations</i> Section 2.390, "Public Inspections, Exemptions, Requests for Withholding." All Agreement and Non-Agreement States, and State Liaison Officers.				
11/15/2013	IN-2013-22	Recent Licensing Submittals Containing Personally Identifiable Information	All materials licensees, certificate holders, applicants, and other entities subject to regulation by the U.S. Nuclear Regulatory Commission for the use of source, byproduct, and special nuclear material. All Radiation Control Program Directors and State Liaison Officers.				

Note: This list contains the six most recently issued generic communications, issued by the Office of Federal and State Materials and Environmental Management Programs. A full listing of all generic communications may be viewed at the NRC public Web site at the following address: <a href="http://www.nrc.gov/reading-rm/doc-collections/gen-comm/index.html">http://www.nrc.gov/reading-rm/doc-collections/gen-comm/index.html</a>