

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
WASHINGTON D.C. 20555-0001

November 3, 1995

**NRC GENERIC LETTER 95-09: MONITORING AND TRAINING OF SHIPPERS
AND CARRIERS OF RADIOACTIVE MATERIALS**

Addressees

All U.S. Nuclear Regulatory Commission Licensees.

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this generic letter (GL) to clarify the requirements for monitoring and training of shipping and carrier personnel during pickup and delivery of packaged radioactive materials at NRC-licensed facilities. This GL applies to shipping personnel not employed by the licensee, but by an independent carrier or shipping company. It is expected that recipients will review the information for applicability to their operations and consider actions, as appropriate, to avoid problems. However, no specific action nor written response is required.

Description of Circumstances

Section 19.12 of 10 CFR, "Instructions to Workers," requires that all individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 mrem be provided with training commensurate with the potential radiological hazards to which the person may be exposed. The person involved in such training need not be a licensee employee. Regardless of employment affiliation, when a person enters the restricted area, the licensee must ensure that the person is adequately trained.

Section 20.1502 of 10 CFR, "Conditions Requiring Individual Monitoring of External and Internal Occupational Doses," requires monitoring for exposure to radiation for adults likely to receive, in 1 year, a dose in excess of 10 percent of the applicable limits in 10 CFR 20.1201(a). Data obtained from carriers involved in the transport of radioactive material packages indicate that a transportation worker routinely picking up packages from a licensee's facility could, in some cases, receive a dose in the licensee's restricted area in excess of the threshold for external radiation monitoring. Such a worker must therefore be monitored in accordance with 10 CFR 20.1502(a)(1).

The monitoring and training requirements described above, when applied to carrier personnel, are seen by carrier companies, as well as by NRC licensees, as imposing cumbersome and costly requirements that do not contribute to public health and safety. This is believed to be particularly the case because many of the carriers' personnel frequent numerous restricted areas in

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the course of their routine duties. If each licensee were to apply the monitoring and training rules, carrier personnel would receive multiple training and retraining at each licensee's facility, and would also undergo separate monitoring by each licensee. The Radiopharmaceutical Shippers and Carriers Conference (RSCC) most recently expressed these concerns in a letter to NRC dated December 12, 1994, where RSCC requested that NRC issue an information notice to address the problem. RSCC included with its letter a draft information notice for NRC consideration.

Discussion

A memorandum of understanding (MOU) between NRC and the Department of Transportation (DOT) was published in the Federal Register in July 1979 (FR Vol. 44, No. 128, 38690, 1979). The MOU delineates the respective responsibilities of NRC and DOT in the transportation of radioactive materials. According to this MOU, DOT is given the responsibility to regulate most activities related to the transportation of radioactive materials between NRC-licensed facilities. NRC is given the responsibility to regulate receipt, possession, use, and transfer of byproduct, source, and special nuclear materials. In addition, NRC is assigned the review and approval of package designs for fissile materials and other materials in excess of Type A limits, whereas DOT approves the designs of packages for other materials.

According to the MOU, the protection of transportation workers involved in the transport of radioactive materials is regulated by DOT. To this end, DOT has promulgated 49 CFR Part 173, "Shippers - General Requirements for Shipments and Packagings", Subpart I - "Radioactive Materials." Part 173 details the requirements for package design and material classification, as well as limitations on quantities and dose rates during shipping. In addition, 49 CFR Part 172, Subpart H, specifies training requirements for all employees involved in the handling of hazardous materials, which include radioactive materials, and Subpart H requires initial training and retraining every 2 years thereafter.

Several carriers also operate under special DOT exemptions, especially DOT-E 8308 and DOT-E 10045. These exemptions are issued to specific carriers, and exempt these carriers from certain sections of DOT's 40 CFR Parts 170-180, but specify the elements of a radiation protection program that the carriers must implement as a condition for eligibility for such exemption. For example, DOT-E 8308 requires the carrier, among other provisions, to (1) comply with the Occupational Health and Safety Administration's (OSHA's) 29 CFR 1910.96, "Ionizing Radiation;" (2) maintain exposures as low as is reasonable achievable (ALARA); (3) monitor the radiation doses to employees handling radioactive materials; (4) provide training to these employees; (5) conduct radiation and contamination surveys; and (6) engage a health physicist to ensure proper implementation of the radiation protection program. OSHA's 29 CFR 1910.96 contains much of the material contained in 10 CFR Part 20 before its latest revision, including quarterly and lifetime dose limits for occupationally exposed workers, monitoring, posting and survey requirements, and reporting requirements.

Entry of a carrier employee into a licensee's restricted area represents a situation in which there is an overlap of NRC and DOT jurisdictions. The carrier employee is engaged in transportation activities, and is therefore subject to DOT regulations; But the carrier employee is also working within the licensee's restricted area, and is therefore subject to NRC regulations. This overlap of jurisdiction was not explicitly addressed in the NRC/DOT 1979 MOU.

NRC has reviewed this situation and has concluded that, in an effort to avoid duplicative regulation, carrier employees frequenting a licensee's restricted area for the sole purpose of picking up or delivering packages containing radioactive materials would be adequately protected by the appropriate sections of the DOT regulations to which the carrier is subject. Programs such as those specified in DOT-E 8308 provide a level of training and protection of the worker equivalent to that provided by the relevant sections of 10 CFR Parts 19 and 20, and therefore provide reasonable assurance for the safety of carrier personnel. However, because different carriers may operate under different exemptions or different parts of the DOT regulations, it is the responsibility of NRC licensees to ensure that carrier personnel entering their restricted areas are subject to a radiation protection program that provides a level of protection, monitoring, and training equivalent to that required by the applicable NRC regulations.

NRC licensees may choose any method that they consider capable of providing assurance that carrier personnel have received the proper training and are being properly monitored for radiation exposure. In the case of carriers whose programs are established in compliance with DOT requirements, a letter from the carrier certifying that their personnel are trained and monitored under the provisions of such a program would be sufficient to show compliance with the applicable sections of 10 CFR Parts 19 and 20. Another method, applicable in cases where the carrier's program is not established in compliance with DOT requirements, would be to obtain and review copies of the carrier's programs to ensure their adequacy. The licensees should ensure, however, that any reviews of the carrier's radiation safety program are of adequate quality, and were conducted by qualified personnel.

Training by NRC licensees of carrier personnel adequately covered by the carrier's program would only be required in cases where the NRC licensee had determined that certain features of its restricted area posed site-specific or unusual hazards to which carrier personnel needed to be alerted. The extent of such training would be commensurate with the degree of hazard, and would vary from a read-and-sign program, to classroom or field instruction, as previously provided by licensees.

October 5, 1995

MEMORANDUM TO: Chairman Jackson
Commissioner Rogers

FROM: James M. Taylor
Executive Director for Operations

Original signed by
James M. Taylor

SUBJECT: GENERIC LETTER DESCRIBING ACCEPTABLE POLICY
FOR TRAINING AND MONITORING SHIPPER AND
CARRIER PERSONNEL

Attached is a generic letter (GL) describing acceptable methods for providing training and radiation monitoring to shipping and carrier personnel. These methods implement requirements specified in 10 CFR Parts 19 and 20, and they apply to personnel entering a licensee's restricted areas. The shipper and carrier personnel are not normally licensee employees. They enter the restricted areas periodically, for short amounts of time, to pick up or deliver packages containing radioactive materials. The position described in the GL constitutes a new policy that permits licensees to use the monitoring and training provided by the carriers to satisfy the requirements noted above. As such, this position represents a reduction in burden from the previous staff position. The Department of Transportation (DOT) has reviewed the Generic Letter and has not expressed any reservations.

Unless directed otherwise, the staff plans to issue this GL within 10 days from the date of this memorandum.

SECY, please track.

Attachment:
Generic Letter

cc: SECY
OGC
OCA
OPA

CONTACT: Sami Sherbini, NMSS
415-7902

DISTRIBUTION: w/att. IMNS-944

NRC Central File IMOB r/f CEstep IMNS r/f
NMSS r/f NMSS Dir. Off.r/f EDO r/f

DOCUMENT NAME: G:GL.COM *See previous concurrence

OFC	IMOB*		IMOB*		IMOB*		NMSS*		IMNS*		NMSS*
NAME	SSherbini/ss/ll		CJones		GPangburn		EKraus		FCombs		EKrauss
DATE	7/19/95		7/19/95		7/31/95		9/18/95		9/13/95		9/19/95

OFC	IMNS*		NMSS*		NMSS*		DEDS		EDO
NAME	DCool		MKnapp		CPaperiello		HLThompson		JTaylor
DATE	9/28/95		10/14/95		10/14/95		10/12/95		10/25/95

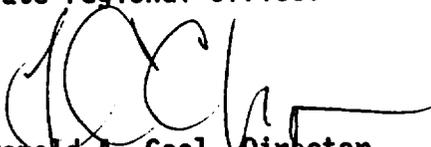
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LIST OF RECENTLY ISSUED NRC GENERIC LETTERS

Generic Letter	Subject	Date of Issuance	Issued To
95-08	10 CFR 50.54(p) PROCESS FOR CHANGES TO SECURITY PLANS WITHOUT PRIOR NRC APPROVAL	10/31/95	ALL HOLDERS OF OLs & CPs FOR NPRs.
88-20, Supp. 5	INDIVIDUAL PLANT EXAMINATION OF EXTERNAL EVENTS FOR SEVERE ACCIDENT VULNERABILITIES	09/08/95	ALL HOLDERS OF OLs (EXCEPT THOSE LICENSES THAT HAVE BEEN AMENDED TO POSSESSION-ONLY STATUS) OR CPs FOR NPRs.
95-07	PRESSURE LOCKING AND THERMAL BINDING OF SAFETY-RELATED POWER-OPERATED GATE VALVES	08/17/95	ALL HOLDERS OF OLs (EXCEPT THOSE LICENSES THAT HAVE BEEN AMENDED TO POSSESSION-ONLY STATUS) OR CPs FOR NPRs.
95-06	CHANGES IN THE OPERATOR LICENSING PROGRAM	08/15/95	ALL HOLDERS OF OLs (EXCEPT THOSE LICENSES THAT HAVE BEEN AMENDED TO A POSSESSION ONLY STATUS) OR CPs FOR NPRs.
95-05	VOLTAGE-BASED REPAIR CRITERIA FOR WESTINGHOUSE STEAM GENERATOR TUBES AFFECTED BY OUT-SIDE DIAMETER STRESS CORROSION CRACKING	08/03/95	ALL HOLDERS OF OLs OR CPs FOR PRESSURIZED WATER REACTORS (PWRs).
92-01, REV. 1, SUPP. 1	REACTOR VESSEL STRUCTURAL INTEGRITY	05/19/95	ALL HOLDERS OF OLs (EXCEPT THOSE LICENSES THAT HAVE BEEN AMENDED TO POSSESSION-ONLY STATUS) OR CONSTRUCTION PERMITS FOR NPRs.

OL = OPERATING LICENSE
 CP = CONSTRUCTION PERMIT
 NPR = NUCLEAR POWER REACTORS

If you have any questions about this matter, please contact the technical contacts listed below or the appropriate regional office.



Donald A. Cool, Director
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Material Safety
and Safeguards

Technical contacts: Sami Sherbini, NMSS
(301) 415-7902

Cynthia Jones, NMSS
(301) 415-7853

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Document: 95-09.GL

OFC	IMNS*		IMNS*		NMSS		IMNS*		IMAB*
NAME	SSherbini/ss/11		CJones		EKraus		GPangburn		LWCamper
DATE	7/14/95		7/18/95		7/19/95		7/31/95		8/25/95
OFC	NRR		OGC*		IMNS*		IMNS		
NAME	Chiller		STreby		FCombs		DCool		
DATE	Reviewed		9/11/95		9/13/95		9/22/95		

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OFC	IMNS*		IMNS*		NMSS		IMNS*		IMAB*
NAME	SSherbini/ss/l		CJones		EKraus		GPangburn		LWCamper
DATE	7/14/95		7/18/95		und 9/18 th 27 7/19/95		7/31/95		8/25/95
OFC	NRR		OGC*		IMNS*		IMNS*		
NAME	CMiller		STreby		FCombs		DCool		
DATE	/ /95		9/11/95		9/13/95		9/13/95		

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The NRC has reviewed this situation and has concluded that, in an effort to avoid duplicative regulation, carrier employees frequenting a licensee's restricted area for the sole purpose of picking up or delivering packages containing radioactive materials would be adequately protected by the appropriate sections of the DOT regulations to which the carrier is subject. Programs such as those specified in DOT-E 8308 provide a level of training and protection of the worker equivalent to that provided by the relevant sections of 10 CFR Parts 19 and 20, and therefore provide reasonable assurance for the safety of carrier personnel. However, because different carriers may operate under different exemptions or different parts of the DOT regulations, it is the responsibility of NRC licensees to ensure that carrier personnel entering their restricted areas are subject to a radiation protection program that provides a level of protection, monitoring, and training equivalent to that required by the applicable NRC regulations.

NRC licensees may choose any method that they consider capable of providing assurance that carrier personnel have received the proper training and are being properly monitored for radiation exposure. One method that would be considered acceptable would be to obtain and review copies of the carrier's programs to ensure their adequacy. It would not be necessary for each licensee to attend and independently audit the carrier's actual training programs. Training by NRC licensees of carrier personnel adequately covered by a DOT program would only be required in cases where the NRC licensee has determined that certain features of their restricted area pose site-specific or unusual hazards to which carrier personnel must alerted. The extent of such training should be commensurate with the degree of hazard, and may vary from a read-and-sign program to classroom or field instruction, as previously done by licensees.

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OFC	NRR	OGC	IMNS	IMNS	
NAME	CMiller	STreby	FCombs	DCool	
DATE	1/95	9/11/95	9/13/95	1/95	

(Following change)

*Reviewed by
 NRR. No
 concur. reqd.*

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