

# CRCPD's Committee on Resource Recovery & Radioactivity

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Conference of Radiation Control Program Directors, Inc. (CRCPD)  
A Partnership Dedicated to Radiation Protection

cc: Board of Directors  
Deborah  
Chuck Harker  
Jerry Severe

November 28, 2001

COPY

Donald A. Flater, Chief  
Bureau of Radiological Health  
Department of Public Health  
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Dear Mr. Flater:

Thank you for your correspondence regarding the U.S. Department of Transportation's Exemption DOT E-10656, Sixth Revision, which authorizes the one-way transportation in commerce of shipments of scrap metal and related metal recycled materials containing unidentified radioactive material or contamination (RAM). Your concerns regarding the exemption were discussed during a recent E-23 Committee working group meeting held October 24 and 25, 2001, in Nashville, TN.

Our working group consists of committee members from Agreement and Non-Agreement State Radiation Control Programs, state and industry advisors, federal resource individuals from the U.S. Environmental Protection Agency, the U.S. Nuclear Regulatory Commission, and the U.S. Department of Transportation (DOT), and consultants expert in historical and institutional developments leading to availability of the exemption through the CRCPD.

With regard to the primary issue raised in your letter, the requirement to provide identification and disposition information at the destination [of a shipment made under the exemption], and your questioning jurisdictional authority by the DOT after a shipment has been received, Mr. Fred D. Ferate, II, CHP, (DOT) confirmed for us that initiation and use of the exemption must be in accordance with all terms and conditions prescribed in the exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180. Enforcement procedures in 49 CFR 107, Subpart D, may be applied when persons do not act under all terms of the exemption, including those following shipment receipt. He was prompt in pointing out, however, that using the exemption is voluntary, with its intent being to provide a workable mechanism for resolving "kinks" in the system when unexpected RAM shows up.

Mr. Ferate suggested it would be helpful to remind folks of alternatives to the exemption, which impose requirements far more labor intensive, cumbersome and time-consuming than requirements in the exemption. Without DOT E-10656, it is not unusual for intervals of several days to several weeks to elapse before a load containing unexpected RAM can be shipped in compliance with the Hazardous Materials Regulations. This is because classification and description requirements for the shipment are difficult to meet when unexpected RAM is found. Nonetheless, the material must be classified and described before the consignment can be *legally* offered for commercial shipment. Added to this is the factor that sites where unexpected RAM is detected generally have limited technical resources available, and it takes more time to assemble needed

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resources at the detection site than it does to use the exemption and allow the load to be moved to an alternate location where qualified personnel are more readily available to assess and control associated risks, including those from bio-hazard, chemical and mechanical hazards.

Through DOT E-10656, DOT delegates enormous confidence in State Radiation Control Officials by providing a workable mechanism for authorizing a load to be quickly and safely shipped to a better, safer location than the original detection site, but it does not exempt the load itself. Under an approved exemption, the shipment is allowed to take place without having to meet the strict requirements of the Hazardous Materials Regulations of Part 173, Subpart I, for packaging and transport; 173.22(a)(1) for classification and description; and, 49 CFR Part 172, Subpart C (shipping papers), D (marking), E (labeling), and F (placarding). The cornerstone of the exemption is good judgement by the state official to compensate for relief from these prescriptive regulations, and to allow expediency without compromising safety. We also believe the exemption is a model of success by a federal, state and industry alliance facilitated through dedicated efforts by DOT, CRCPD and the individuals most affected by improperly disposed RAM.

Regarding your other worrisome concern, that a relatively simple and brief process has become a cumbersome and time-consuming endeavor, the committee acknowledges improvements incorporated into the Sixth Revision appear to require more time to process than the previous revisions did. However, in actuality, the requirement for reporting the identification of the RAM and its final disposition is not new. Instead, the Sixth Revision clarifies a requirement that had been overlooked and infrequently followed up on before. The clarification is intended to delineate the importance of properly following-up and "closing-the-loop" on reporting the removal of orphaned sources from the public domain. It also fosters communication to mitigate, or prevent, a problem identified in one locale from becoming one of much more serious consequence in another. With more than 1,700 devices reported missing in the United States, and documented costs in the millions of dollars to facilities for clean-up when an unexpected source is melted, no load can be assumed to contain insignificant or exempt quantities of RAM until proven through identification and characterization.

While it would be ideal if an initial measured dose rate, or count rate, were sufficient to provide adequate information on the RAM involved, this measurement is generally useful only after subsequent measurements indicate a very rapidly decaying source is involved. Insufficient information about source strength and activity can be learned from an initial detection measurement, even when only a slight increment above background is measured. It does show RAM is in the load, and further identification and characterization must be performed to determine its actual risk to human health and the environment. This makes the exemption an important tool in the process.

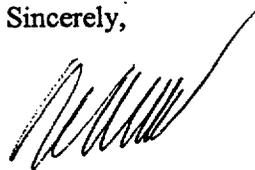
Other improvements were incorporated into the Shipment Approval Form Sixth Revision, including discontinuing a number of items considered unnecessary (e.g., route taken and addresses for various state agencies). Also, while there are now more spaces spread out on a two-page form instead of having to squeeze important information onto one-page, all situations do not require all spaces to be used. In fact, the form provides flexibility for documenting a variety of real-life situations known to occur when shipments under the exemption are made to in-state or out-of-state locations, and when they involve only a few to several agencies, facilities and/or individuals.

Your last concern, your staff's objection to the "Records of Transmittal" section of the exemption, this section was constructed with sufficient flexibility to allow the State Radiation Control Official options of delegating the form to be filled out and transmitted by a member of their staff, or by another trusted individual such as the carrier, shipper or consultant in whom the Agency has established confidence. The issuing official and/or their designee, by reviewing a completed Shipment Approval Form, may then ensure all obligations in the exemption have been met without necessarily having to perform each step.

In addition, there have been credible reports received by the DOT and states that some individuals have behaved unscrupulously following the detection of RAM. The DOT is discussing with us mechanisms, subject to DOT's management approval, for their Transportation Enforcement Specialist in the Office of Hazardous Materials Enforcement, to perform possible inspection and enforcement actions against the provisions of cited Exemption DOT E-10656, as well as against DOT E-11406 (an exemption for one-way transportation in commerce of shipments of waste containing unidentified RAM). In some instances, the Shipment Approval Form could offer compelling evidence admissible in an enforcement action against a willful violator.

Finally, in response to your summary that the exemption format appears to be ill conceived, we were not sure whether your comment was referring to the exemption, or to Annex A, the Shipment Approval Form. Over the years, the exemption has undergone extensive reviews and concurrence in order to include suggested improvements that address an appropriate balance between helping states, industry and the DOT itself, while being adequately protective of human health and the environment. Constructive suggestions on how the exemption and Shipment Approval Form can be made more "user friendly," especially for individuals who either do not use it often, or who are not sufficiently familiar with the implementing requirements of the exemption, are not only welcomed, but very much encouraged. Please be assured that all constructive recommendations you, and your staff, may offer for enhancing or improving the exemption and/or the Shipment Approval Form will be very much appreciated.

Sincerely,



Kathleen McAllister

cc: Patricia Gorman, Deputy Director ✓  
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