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October 3, 2001

Bureau of Radiation Protection

717-787-2480

Mr. James K. O'Steen, Director
U.S. Department of Transportation (DOT)
Research and Special Programs Administration
Office of Hazardous Materials Technology
400 Seventh Street, S.W.
Washington, DC 20590

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OSP

Re: Amendment to 49 CFR 173.401

Dear Mr. O'Steen:

As you may be aware, radioactive material administered to animal or human patients is being detected with increasing frequency at solid waste disposal facilities with radiation monitors. Specifically, household trash items become contaminated by patients who have undergone a diagnostic or therapeutic nuclear medicine procedure (e.g., a thyroid treatment with radioactive iodine-131). This radioactive material is exempt from U.S. Nuclear Regulatory Commission (NRC) regulations once administered and excreted from the patient. Similarly, the DOT's regulations in 49 CFR 173.401(b)(3) exempt the Class 7 (radioactive) material during transport while in the human or animal. (See enclosed.) However, there is no specific exemption for the patient who may contaminate an item that may ultimately become household solid waste. Thus, the (individual) patient may offer this radiologically contaminated waste to a disposal (carrier) firm, and possibly be in violation of DOT's hazardous materials transportation regulations.

We are interested to know, lacking a specific DOT regulatory exemption, would an individual who offers radiologically contaminated solid waste to a trash hauler be in violation of federal DOT regulations? If this is the case, there are perhaps thousands of such violations daily in the United States. In that both DOT and NRC exempt such material in the patient (no doubt) due to the low potential public health impact, I would recommend the DOT also consider a

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specific exemption for patient excreted radioactive material. In fact, NRC does exempt contaminated excreta released into sanitary sewerage in 10 CFR 20.2003. I suggest adding the underlined wording to 49 CFR 173.401(b)(3) as follows:

- (b) This subpart does not apply to:
 - (3) Class 7 (radioactive) materials that have been injected into, ingested by, or are otherwise placed into, and are still in or have been excreted from, human beings or animals.

Thank you for your evaluation and consideration of this matter.

Sincerely,



David J. Allard, CHP
Director
Bureau of Radiation Protection

Enclosure

cc: Dr. Fred D. Ferate, DOT
Paul Lohaus, NRC
Charles Hardin, CRCPD
Terry Devine, CRCPD

TITLE 49--TRANSPORTATION

CHAPTER I--RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

PART 173--SHIPPERS--GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS--Table of Contents

Subpart I--Class 7 (Radioactive) Materials

Sec. 173.401 Scope.

Source: Amdt. 173-244, 60 FR 50307, Sept. 28, 1995, unless otherwise noted.

(a) This subpart sets forth requirements for the packaging and transportation of Class 7 (radioactive) materials by offerors and carriers subject to this subchapter. The requirements prescribed in this subpart are in addition to, not in place of, other requirements set forth in this subchapter for Class 7 (radioactive) materials and those of the Nuclear Regulatory Commission in 10 CFR part 71.

(b) This subpart does not apply to:

(1) Class 7 (radioactive) materials produced, used, transported, or stored within an establishment other than during the course of transportation, including storage in transportation.

(2) Class 7 (radioactive) materials contained in a medical device, such as a heart pacemaker, which is implanted in a human being or live animal.

(3) Class 7 (radioactive) materials that have been injected into, ingested by, or are otherwise placed into, and are still in, human beings or live animals.