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RECORD #191

TITLE: Licensing of Depleted Uranium Shielding for Use in
Possessing of Mo-99/Tc-99m Generator

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUN 09 1986

TO: ALL MEDICAL LICENSEES AND COMMERCIAL NUCLEAR PHARMACIES

Many of you are authorized to possess and use molybdenum-99/technetium-99m (Mo-99/Tc-99m) generators. These generators range in activity from about 200 millicuries to 16 curies of Mo-99. Although most generators are surrounded by lead shielding, some with Mo-99 activity greater than 4 curies are surrounded by depleted uranium used first as a shipping container and then as shielding after you have received it.

The Nuclear Regulatory Commission's (NRC's) regulations covering depleted uranium are found in 10 CFR Part 40, copy enclosed. Note the revised provisions of 10 CFR 40.13(c)(6) that became effective on December 24, 1981. Until now, the NRC's technical staff did not differentiate between depleted uranium used as a shipping container and that used as shielding, and has generally viewed your possession and use of the depleted uranium associated with your Mo-99/Tc-99m generators to be exempt from licensing. However, recent questions on this matter have prompted us to reexamine our position.

Our current view is as follows. Depleted uranium associated with Mo-99/Tc-99m generators is exempted from licensing requirements (see 10 CFR 40.13(c)(6)) only when it is used as a shipping container (e.g., when the generator is in transit from its manufacturer to you). However, a specific license or authorization from NRC is needed to possess and use the depleted uranium as a shield (e.g., during the time that you are using or storing the Mo-99/Tc-99m generator at your facility). Many of you using these high activity Mo-99/Tc-99m generators have licenses that do not contain this specific authorization from NRC.

To make sure that you have this authorization in the future, we will use the following license condition:

"Pursuant to Title 10, Chapter 1, Code of Federal Regulations, Part 40, 'Domestic Licensing of Source Material,' the licensee is authorized to possess, use, transfer, and import up to 999 kilograms of depleted uranium contained as shielding material in the molybdenum-99/technetium-99m generators authorized by this license."

The absence of this condition on your current license is not a health and safety problem and it will not be considered an item of noncompliance. The next time NRC amends your license, we will formally add this condition to licenses that authorize possession and use of 4 or more curies of Mo-99/Tc-99m generators. Amendments to increase generator possession limits to 4 or more curies will also include this license condition.

Multiple Addressees

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If you have any questions about this matter, please contact the material licensing staff in the appropriate NRC Regional Office.


Vandy L. Miller, Chief
Material Licensing Branch
Division of Fuel Cycle and
Material Safety

Enclosure: 10 CFR Part 40