



# HEALTH PHYSICS ASSOCIATES, INC.

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January 28, 2000

Secretary  
US Nuclear Regulatory Commission  
Washington, DC 20555

Attention: Rulemaking and Adjudications Staff

DOCKET NUMBER

PETITION RULE PRM 40-28  
(64FR 3394)

re: Petition for Rulemaking, Donald A. Barbour  
Docket PRM-40-28  
Federal Register, Vol 65, No. 14, January 21, 2000, 3394 through 3397

Gentlemen:

I wish to go on record supporting the petition for rulemaking suggested by Mr. Donald A. Barbour as published in the referenced Federal Register.

I am a consultant to several steel plants and scrap processing yards, and in that capacity have encountered depleted uranium castings detected in shipments of scrap steel on several occasions. The DU was the cause of alarms at the facility and forced the cost of discovery, isolation and disposal on the steel plant or scrap yard. In most cases the total cost was in the range of \$1000 to \$4000 per discovery. This is not an insignificant amount and should not be borne by a scrap yard or steel plant. It was not possible to tell if the castings were DU counter balances or for other applications. Age, corrosion and physical abrasion had destroyed all identifying markings by the time the DU was detected in the scrap.

In one case, a DU casting was being used to keep a sheet metal lid on a trash can. It was discovered when the scrap yard operator had a rail car rejected because of a radiation alarm at a steel mill. When the load was examined, a similar casting was found to be the cause of the alarm. He then realized what he was used as a lid weight. My concern was not the radiological hazard potential, but rather the heavy metal toxicity of the uranium casting that was receiving relatively harsh treatment.

The NRC has a responsibility to protect the general public even from those materials the Commission may have decided posed no hazard years ago, but which today are being shown to find their way into scenarios which were never thought of.

RADIATION PROTECTION CONSULTANTS

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Issue 1. I agree with Mr. Barbour that it is likely much cheaper for an airline or the Department of Defense to store DU than to dispose of it. There appears to be an oversupply of DU, rendering recycled DU valueless. I do not agree that the decommissioning rule was initially intended to cover this material or sealed sources; however, I believe the following approach is reasonable.

As long as the DU is in its intended use and the use is active (e.g., an active airplane, etc.), the DU should be covered by the GL or exemption. Once the use is no longer active (e.g., the airplane is permanently grounded), the DU should be transferred to a specific license and treated in the same way that sealed sources are: inventoried and the total number accountable. Storage can be for as long as necessary, and either in the aircraft or removed to a storage facility. But the total inventory would have to be tracked.

Issue 2. Just as a distributor of GL or exempt sources is required to obtain a license, dealers who supply new or salvaged DU should be licensed and required to inventory their supply. I do not know if DU counter balances are serialized. If they are, it would be relatively easy to maintain an inventory.

Issue 3. This should be handled in the same way as described in Issues 1 and 2. If the material is being stored in an aircraft that is no longer airworthy or stored out of the aircraft, the DU should be covered under a specific license and inventoried.

Issue 4. Once an aircraft is deemed to no longer be airworthy, the exemption should cease and the DU required to be possessed under a specific license.

Issue 5. I do not believe the NRC should require any business to dispose of a radiation source after some bureaucratically determined time. That is a business decision. I do feel that the NRC should require the material to be authorized under a specific license so that there is greater assurance that control will be maintained. Timeliness of decommissioning makes sense when dealing with contaminated property or equipment that is no longer being used. It does not make sense when dealing with sealed sources or castings that can be easily inventoried. I am aware of situations in which gauging devices were purchased for an anticipated process line. Economic conditions delayed the installation of the line for 8 years. Why should the licensee have to dispose of the source housing after two years? This is similar to a unilateral decision made by the NRC several years ago, in the absence of real input from licensees, to limit decay in storage of loose radionuclides to 60 days. At the time sulfur 35 was a commonly used research tagging radionuclide, but has an 88 day half-life. If a licensee accepted the NRC's unilateral decision, they were forced to unnecessarily spend money to dispose of sulfur 35 waste, when it could have safely been stored for decay. I believe opposition to that decision led the NRC to reset the half-life limit to around 100 days.

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Issue 6. The Department of Defense (or the separate agencies) are special broad scope licensees of the NRC. A condition could easily be inserted in each license requiring the agency to notify a foreign government of the presence of DU upon transfer.

Sincerely,

A handwritten signature in cursive script that reads "A. LaMastra". The signature is written in black ink and is positioned to the right of the word "Sincerely,".

A. LaMastra  
Certified Health Physicist