



# Arkansas Department of Health and Human Services



## Division of Health

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February 2, 2006

Lydia Chang  
U.S. Nuclear Regulatory Commission  
Office of Nuclear Material Safety and Safeguards  
11555 Rockville Pike  
Rockville, Maryland 20852

Dear Ms. Chang:

The Arkansas Radioactive Materials Program is submitting the following comments regarding the proposed NARM rulemaking that is required by Section 651 (e) of the Energy Policy Act of 2005 (EPAct). Arkansas agrees and supports the comments approved by the Organization of Agreement States' (OAS) Executive Board. Arkansas has been a U.S. Nuclear Regulatory Commission (NRC) Agreement State since 1963. Even prior to becoming an Agreement State, we have regulated all the radioactive materials identified in the EPAct to protect the public health and safety of the citizens of Arkansas. We strongly disagree with the possible compatibility designation for certain sections of the rulemaking that could result in being mandated to change standing statutes and regulations in order to adopt identical NRC regulatory language.

The EPAct has impacted the regulatory framework of the NRC, but has little or no impact on the Agreement States. We have been and will continue to recognize that all radioactive material, regardless of origin, should be regulated in a consistent manner. Unnecessary changes to state statutes and regulations could be minimized through the use of a lower compatibility designation. The NRC should become compatible with current regulatory language used by the states in the regulation of NARM materials. The Agreement States have a long history and a vast experience in the areas of NARM and that should be used to the benefit of the NRC and would be less burdensome to state radiation control programs.

Attached are comments made in addition to the comments prepared by the OAS.

We would like to thank the NRC for the opportunity to comment on this important rulemaking. If you have any questions, or should need additional information, please contact me at 501-661-2173.

Sincerely,

Jared W. Thompson, Program Manager  
Radioactive Materials Program

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DIVISION OF HEALTH  
RADIOACTIVE MATERIALS PROGRAM**

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**1. Page 34 – Definition of Discrete Source**

This definition does not appear to be “plain language”. It seems to be confusing because it uses four different terms in the definition (source, radiation, radionuclide concentration and concentrated materials). The following revision to the definition of discrete source is recommended,

“...a radiation source with physical boundaries, which is separate and distinct from the radiation present in nature, and in which the concentration of radioactive material has been increased by human processes with the intent that the radioactive material will be used for its radiological properties.”

**2. Page 43 – General License Requirements for Radium-226 Antiquities**

The proposed regulation and discussion regarding the proposed regulation was thoroughly reviewed in hopes of determining that these newly defined general licensed materials had been exempted from registration requirements. However, it does not appear that these materials will be exempted from the general license registration program.

The requirement for registration of Radium antiquities appears to be burdensome for the currently unregulated public and labor intensive for the regulators (states and NRC). The true number of these types of Radium sources is unknown and the citizens that possess them have no experience or training in radiation. A large majority of these materials are heirlooms (watches), historical (military) collectors items that are no longer useful for the purpose that they were manufactured and would not be useful for any malicious purpose.

The citizens that possess these items have no real radioactive materials experience or training and this will result in a large amount of staff time assisting in the registration process. The registration process will be on going for several years. In 1987, we began an X-Ray Registration Program, it has been 19 years and yet we do not have 100% registration for devices that are simple to track and locate. This will be labor intensive for radiation control programs with limited number of staff in which to begin a new registration program. Where is the cost-risk-benefit analysis for this portion of the rulemaking?

It is difficult at best, impossible at worst to register generally licensed devices that the Department has knowledge of through the quarterly manufacturer/distributor transfer reports. What level of effort would the NRC expect from states with regard to these materials, which have never been subject to regulatory tracking regulations?

- Would the Department be expected to attempt to locate these Ra-226 antiquities, luminous items, and small sources? If so, does anyone have a suggestion on how to locate such material when the owner may not realize what he or she has?

- Which regulatory body (the NRC or Agreement States) will be responsible for items, which are routinely sold via the Internet?
- Is it assumed that Agreement States will only be required to enforce this regulation when they become aware of these materials because they set off landfill alarms?

Unlike other newly defined byproduct materials, which have been regulated by Agreement States under existing regulations, Ra-226 antiquities, luminous hands and dials, and luminous gauges have never been regulated. While it would be practical and prudent to regulate newly manufactured Ra-226 devices/sources, it will be an impossible task to attempt to regulate previously manufactured items that are currently in the public domain. As with other sections of the proposed new regulations, an exemption should be granted to any items manufacturer/distributed prior to the effective date of the new regulations.

We will not gain specific knowledge as to location of these sources since most of the citizens possessing the material will not be aware of their status as General Licensees. The end result could be an unenforceable and ineffective regulation with numerous improper disposal and orphaned sources. We would like the NRC to reevaluate this proposed rulemaking and determine the true risk associated with these sources.

### **3. General Question**

It does not appear that the NRC is charged with the “manufacturing” side of discrete source production, but is responsible only after a discrete source is produced. Will States be required to regulate the “manufacturing and waste management” aspects of source production (if any is done)?

A similar question exists for the “manufacture” of accelerator produced radioactive material, who will regulate the accelerators?