



Radiation Safety Office
Radiation Safety Lab
University of Cincinnati Medical Center
P.O. Box 670591
Cincinnati, Ohio 45267-0591

Phone (513) 558-4110
Fax (513) 558-9905

DOCKETED
USNRC

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November 30, 2010 (11:15am)

Secretary
US Nuclear Regulatory Commission
Washington DC 20555-0001
Attn: Rulemakings and Adjudications Staff
Sent by email: rulemaking.comments@nrc.gov

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Subject: RIN 3150-AH15
Docket: NRC-2009-0084
Comments on Distribution of Source Material to Exempt Persons and to General Licensees and Revision of General License and Exemptions

Dear Sir/Madam:

The University of Cincinnati appreciates this opportunity to provide comments on the above referenced proposed rule and respectfully submits the following comments.

Limits on Source Material Quantities for General Licensees

Proposed 10 CFR 40.22 would continue to authorize a "general license" to "commercial and industrial firms; research, educational, and medical institutions; and Federal, State and local government agencies" to "receive, possess, use, and transfer" source material in the form of natural or depleted uranium and natural thorium for "research and development, educational, commercial and operational purposes." However, the proposed 10 CFR 40.22 would reduce the amount of source material that a "person" may receive, possess, use, and transfer under the general license and also would impose significant new responsibilities on the general licensee.

Uranium and thorium compounds are common chemicals used for research and development, educational, commercial and/or operational purposes for which the radioactivity is an unnecessary physical property. Examples include uranium acetate and uranium nitrate, which are used as a negative stain in electron microscopy. Uranium acetate solutions are used as an indicator or titrate in analytical chemistry since they form an insoluble salt with sodium. Uranyl acetate is also used in a standard test, American Association of State Highway and Transportation Officials (AASHTO) Designation T 299, for alkali-silica reactivity in aggregates (crushed stone or gravel) being considered for use in cement concrete. Thorium fluoride and thorium oxide are used in advanced optic applications because of their high refractive index.

Under the current 10 CFR 40.22, the general licensee may "use and transfer" 15 pounds of source material at any one time and receive up to 150 pounds per year. The proposed rule adds two new paragraphs, 40.22(a)(1) and 40.22(a)(2). These two paragraphs significantly reduce the amount of source material that may be received, used, possessed and transferred. These paragraphs also add possession limits. 10 CFR 40.22(a)(1) addresses the majority of forms of

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uranium and thorium. 10 CFR 10 CRF (a)(2) places limits on unaltered non-dispersible solid uranium. Since it is less common for unaltered non-dispersible solids to be used, most general licensees will be more directly impacted by the limitations of 10 CFR 40.22(A)(1) -- possessing 1.5 kg (3.3 lbs) of source material at any one time and receiving annually 7 kg (15.4 lbs) of source material. The proposed possession limit of 1.5 kg (3.3 lbs) would be a significant problem to many general licensees. Chemical suppliers routinely sell uranium and thorium compounds in quantities of 25 to 250 grams. In the past, quantities of 500 grams were not unusual. Therefore, for a university or other large institution with hundreds of research investigators who use a uranium or thorium compound, the possession by the licensee, at any one time, of more than 1.5 kg (3.3 lbs) of source material would not be uncommon.

Under the proposed rules, the NRC issues the general license to organizations but places the quantity limitations under 10 CFR 40.22(a)(1) & (2) on "a person." 10 CFR 20.1003 defines person as "Any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group... and any legal successor, representative, agent, or agency of the foregoing." If, for purposes of 10 CFR 40.22(a)(1)&(2), the term "person" can mean an individual within a an organization that is a general licensee, the potential problem of exceeding a possession limit is greatly reduced. The University of Cincinnati recommends a clarification to the proposed rule that specifies this interpretation.

Notice of General Licensee obligations

A second significant issue is the lack of knowledge of many persons and organizations that they will be considered a "general licensee." Both the current and proposed regulations allow source material to be distributed as a chemical; therefore, it is very likely that many persons and organizations that receive source material will not realize they are a "general licensee" who must abide by the NRC requirements listed in 10 CFR 40.22. Under the current regulations, a general licensee has very few responsibilities other than those related to disposal. Therefore, the lack of knowledge of general licensee obligations has had little regulatory significance. As noted previously the proposed rule adds significant responsibilities to the general licensees. To best ensure that general licensees are aware of their responsibilities the University of Cincinnati recommends that the NRC place additional responsibilities on distributors. More specifically, the University recommends that the NRC not only require distributors to provide regulatory and safety information (proposed 10 CFR 40.55(b)) to potential general licensees, but also require them to obtain documentation from general licensees acknowledging their understanding of their general licensee responsibilities.

Notice of Specific Licensee obligations

A final significant issue is the distribution of smaller quantities of source material (e.g., < 1.5 kg (3.3 lbs)) to specific licensees. The University of Cincinnati requests if source material is transferred to any specific licensee (i.e., specific licensee for radioactive material that may or may not include source material), the Radiation Safety Officer or other official named on the license be notified of the transfer and acknowledge the upcoming receipt prior to the transfer.

If you have any questions, do not hesitate to call.

Sincerely,

Victoria Morris, MS, CHP
Radiation Safety Officer

Rulemaking Comments

From: Morris, Victoria (morrisvr) [MORRISVR@UCMAIL.UC.EDU]
Sent: Tuesday, November 30, 2010 10:59 AM
To: Rulemaking Comments
Subject: FW: Docket ID; NRC-2009-0084
Attachments: ltr-source material rule comments-2.doc

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Vicki

From: Morris, Victoria (morrisvr)
Sent: Thursday, November 18, 2010 8:23 AM
To: 'rulemakeing.comments@nrc.gov'
Subject: Docket ID; NRC-2009-0084

Attached are the University of Cincinnati's comments regarding the NRC's proposed rule on Distribution of Source Material to Exempt Persons and to General Licensees and Revision of General License and Exemptions.

Vicki Morris, MS, CHP
Radiation Safety Officer
University of Cincinnati
Phone (513) 558-4110
Fax (513) 558-9905

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From: "Morris, Victoria (morrisvr)" <MORRISVR@UCMAIL.UC.EDU>

To: "rulemaking.comments@nrc.gov" <rulemaking.comments@nrc.gov>

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