

October 5, 2006

MEMORANDUM TO: Samuel J. Collins, Regional Administrator, Region I  
William Travers, Regional Administrator, Region II  
James L. Caldwell, Regional Administrator, Region III  
Bruce Mallet, Regional Administrator, Region IV  
James Dyer, Director, Office of Nuclear Reactor Regulation  
Jack R. Strosnider, Director, Office of Nuclear Material Safety  
and Safeguards  
Roy Zimmerman, Director, Office of Nuclear Security and  
Incident Response  
Charles L. Miller, Director  
Office of Federal and State Materials  
and Environmental Management Programs

FROM: Cynthia A. Carpenter, Director/**RA**  
Office of Enforcement

SUBJECT: ENFORCEMENT GUIDANCE MEMORANDUM - ENFORCEMENT  
DISCRETION FOR VIOLATIONS ASSOCIATED WITH  
CONCENTRATING URANIUM AT COMMUNITY WATER SYSTEMS

On December 7, 2000, the U.S. Environmental Protection Agency (EPA) issued new standards for the uranium content in drinking water (65 FR 76707). In the final rulemaking, EPA set a maximum contaminant level (MCL) of 30 micrograms per liter, equivalent to 30 parts per billion, for uranium in drinking water. The Atomic Energy Act of 1954, as amended, provides the NRC with regulatory authority over source material (which includes uranium) after its removal from its place of deposit in nature. Regulation of source material is addressed in 10 CFR Part 40, "Domestic Licensing of Source Material."

On September 14, 2006, the NRC issued Regulatory Issue Summary (RIS) 2006-20, "Guidance for Receiving Enforcement Discretion When Concentrating Uranium at Community Water Systems." The RIS is addressed to community water systems (CWS), in NRC non-Agreement States, that during the treatment of drinking water, may accumulate and concentrate naturally-occurring uranium in media, effluents, and other residuals. The RIS describes requirements in 10 CFR Part 40 and the criteria under which the NRC would exercise enforcement discretion. Specifically, in accordance with 10 CFR 40.13(a), the NRC regards uranium in any solution (e.g., water) in which the uranium is by weight less than one-twentieth of 1 percent (0.05 percent or 335 picocuries per gram for natural uranium) of the solution as an "unimportant quantity" of source material. Any CWS possessing such unimportant quantities of uranium would not need an NRC license under the 10 CFR 40.13(a) exemption. If a CWS possesses more than an unimportant quantity of uranium, but less than 15 pounds of uranium at any one time and less than 150 pounds of uranium in any one calendar year, the CWS may operate under the existing general license in 10 CFR 40.22, "Small quantities of source material." Although some CWSs may be able to treat for uranium and remain within the conditions of 10 CFR 40.13(a) or 10 CFR 40.22, NRC expects many CWSs will possess

uranium in quantities exceeding those limits, and would normally be required to apply for an NRC specific license to possess, process, and transfer the accumulated uranium, pursuant to 10 CFR 40.31 "Application for specific licenses."

Based on the expectation of relatively low impacts to public health and safety and the environment during normal operations, and because NRC recognizes that the cost of obtaining a specific license can be burdensome, NRC has begun a rulemaking to establish a new class of general license. This new general license will be specific to CWSs that concentrate uranium above 0.05 percent by weight, in response to meeting EPA's MCLs (including the inadvertent concentration of uranium while treating other contaminants in the water). The new general license will ensure that public health and safety and the environment remain adequately protected. While the new general license is under development, NRC will exercise enforcement discretion not to cite those facilities, in NRC non-Agreement States, who possess, process, and transfer accumulated uranium in quantities that exceed the general license quantities in 10 CFR 40.22, but have not applied for, or been granted, a specific license by the NRC, and who meet the requirements described in the RIS, and as follows.

To be eligible for enforcement discretion, the CWS operator must submit a notification to NRC stating an intent to operate under enforcement discretion. This notification must be submitted no later than 30 days after the CWS operator becomes aware that the concentration of the source material possessed by the CWS exceeds 0.05 percent by weight, and the quantity of source material possessed by the CWS exceeds more than 15 pounds of uranium at any one time or more than 150 pounds in any one calendar year. The notification must include the facility name and address, owner of the facility, and form of the effluent, media, or residual that exceeds 0.05 percent by weight. The notification shall also identify a point of contact, including a mailing address, telephone number, and e-mail address (if available).

In addition to notifying the NRC of its intent to operate under the enforcement discretion, the CWS must comply with the following conditions:

1. Records:

The CWS will retain the following records for three years after the transfer or disposal of material containing uranium:

- (A) Amount of uranium transferred from the CWS site;
- (B) To whom it was transferred; and
- (C) Average concentration of uranium in each shipment.

2. Storage, Transfer, and Disposal:

When filter media (or other materials, such as sludge) contain greater than 0.05 percent by weight of uranium, and are no longer actively used by the CWS to meet EPA's uranium MCL, the material containing the uranium is to be transported from the CWS in accordance with applicable Department of Transportation regulations. Transfer of the material containing the uranium must be as follows:

- (A) To a facility authorized to possess the source material (e.g., a person authorized by a license for possession of uranium issued by NRC or an NRC Agreement State); or
- (B) For disposal at a facility authorized to accept radioactive material of the form and type generated by the CWS.

While awaiting transfer, the material containing the uranium must be stored in a manner that will not allow for the release of the uranium or unnecessarily expose the CWS workers. Materials containing uranium, at concentrations greater than 0.05 percent, and that are no longer actively being used as part of the drinking water treatment process, must be removed from the CWS within 90 days from the time they were removed from service. In addition, while in storage, the material containing the uranium must be kept in an area that provides containment (e.g., a catch basin) in case of a spill.

3. Processing Restrictions:

The CWS shall implement new procedures, or use existing procedures for hazardous chemicals to allow employees to safely handle and operate equipment used to process or contain the uranium, concentrated greater than 0.05 percent by weight, during normal operations. These procedures should limit the possibility that employees are able to inhale or ingest the uranium.

Enforcement discretion only applies to those activities required to meet EPA's MCL. Additional intentional concentration, or processing of the uranium captured on the filter media, after removal from the drinking water treatment process, is not permitted under this policy of enforcement discretion, and shall only be done in accordance with a specific license issued by NRC, or an Agreement State.

Backwashing, or other procedures required for normal operation of the filter media, is permitted as long as the uranium is captured, stored, and transferred, as appropriate, in accordance with the transfer procedures in Section 2, "Storage, Transfer, and Disposal," above. If allowed by local pretreatment permits, discharge of residuals containing uranium to sanitary sewers must be below the lesser of any local regulations, permit requirements, or 3 picocuries of uranium per milliliter.

A CWS may not intentionally dilute the uranium after it is concentrated, except as part of normal operation of its equipment (e.g., backwashing).

4. Off-Normal Operations:

A CWS must have written procedures to mitigate the impacts of a spill, or other accident involving the concentrated uranium. The facility must immediately take action to cleanup or mitigate the impacts of a spill or accident in accordance with its procedures, and provide written notification to the NRC within 30 days of the incident. Spilled materials, containing uranium removed from drinking water, must not be allowed to adversely effect the surrounding environment or CWS workers, or be allowed to re-enter the water treatment system.

5. Posting and Labeling:

A CWS operating under enforcement discretion must ensure that the equipment containing uranium, in concentrations greater than 0.05 percent by weight, is clearly labeled and must provide sufficient information (such as the radionuclide present or "Caution - Radioactive Materials") to permit individuals handling or using the containers, or working in the vicinity of the containers, to take precautions or minimize exposures. Areas, such as sludge ponds, containing the uranium in concentrations greater than 0.05 percent by weight, should be posted with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIOACTIVE MATERIALS."

Violations associated with the failure to comply with the above objectives will be dispositioned on a case-by-case basis at an Enforcement Panel. Under certain circumstances, enforcement discretion may not be granted as a result of the failure of the facility to meet the above objectives, or if the NRC concludes that the facility cannot operate safely under enforcement discretion.

NRC will continue to exercise enforcement discretion in these cases until either:

- (A) NRC amends its regulations to create a new general license for CWS, or decides to no longer pursue a new regulation;
- (B) The facility obtains a specific license from the NRC or an Agreement State; or
- (C) The facility ceases operations. If the facility ceases operations, the facility shall decommission/decontaminate the facility in accordance with 10 CFR Part 20, Subpart E, "Radiological Criteria for License Termination."

This EGM will be in effect until further notice.

If you have any questions, contact Sally L. Merchant at 301-415-2747 or e-mail (slm2).

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DISTRIBUTION: EGM-06-004 Dated: October 5, 2006

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