

October 1, 1997

SECY-97-219

FOR: The Commissioners

FROM: L. Joseph Callan /s/
Executive Director for Operations

SUBJECT: ORDER MODIFYING LICENSE TO CONVERT FROM HIGH-ENRICHED
TO LOW-ENRICHED URANIUM FUEL (UNIVERSITY OF
MASSACHUSETTS LOWELL)

PURPOSE:

To inform the Commission of a conversion order issued under 10 CFR 50.64, which requires that non-power reactors convert from high-enriched uranium (HEU) fuel to low-enriched uranium (LEU) fuel, and the status of HEU to LEU conversions.

BACKGROUND:

On March 27, 1986, 10 CFR 50.64, "Limitations on the Use of Highly Enriched Uranium (HEU) in Domestic Non-Power Reactors," became effective. In part, the regulation requires conversion from the use of HEU fuel to LEU fuel, provided suitable fuel and funding are available through the Department of Energy (DOE) or another appropriate Federal agency. The regulation in 10 CFR 50.64(c)(3) requires that the conversion be implemented by an order issued by the Office of Nuclear Reactor Regulation (NRR). In the development of 10 CFR 50.64(c)(3) (51 FR 6517), the Commission decided that an order was appropriate for conversion to avoid litigation expenses that could be incurred by the licensee if a hearing were requested. In the event of a hearing, the staff would participate fully in the proceeding and would have the burden of defending the order. The licensee need not participate in the hearing.

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415-1102

DISCUSSION:

In SECY-87-171, the NRC staff informed the Commission that an order to convert from HEU fuel to LEU fuel had been issued to the Rensselaer Polytechnic Institute. In COMLZ-87-43, the Commission requested that NRR inform it of subsequent conversion orders issued similar to the one discussed in SECY-87-171. To comply with this request, we have attached the order that NRR issued for the conversion of the University of Massachusetts Lowell research reactor. The required 20-day period for hearing requests has expired and a request for hearing has not been received.

In addition to SECY 87-171, we have informed the Commission of other orders in SECY 89-001, 90-184, 90-402, 91-122, 93-154, 93-208, and 95-222. In SECY-90-184, the staff summarized the status of the conversions from HEU fuel to LEU fuel. The attached table updates this summary. It is noted that 6 of the original 25 non-power reactors have been decommissioned and had their license terminated, are in the process of decommissioning, or have ceased operation.

DOE is not planning to fund the following facilities because they are commercial entities, no appropriate fuel is available, or a unique-purpose exemption application has been submitted: General Electric Company Nuclear Test Reactor in Pleasanton, California (commercial); the Massachusetts Institute of Technology (no appropriate fuel); and the National Institute of Standards and Technology (NIST) and the University of Missouri-Columbia (unique-purpose exemption). In addition, DOE is not planning to fund NIST in any case because it maintains that the Department of Commerce should fund NIST.

Coordination:

The Office of the General Counsel has reviewed this paper and has no legal objection to it.

L. Joseph Callan
Executive Director
for Operations

Attachments: 1. Order
2. Table

