NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: CHAIRMAN MESERVE

SUBJECT: **SECY-01-0072 - DRAFT RULEMAKING PLAN: DISTRIBUTION OF SOURCE MATERIAL TO EXEMPT PERSONS AND TO GENERAL LICENSEES AND REVISION OF 10 CFR 40.22 GENERAL USE**

Approved X in part Disapproved X in part Abstain _____

Not Participating _____

COMMENTS:

See attached comments.

SIGNATURE

March 27, 2003

DATE

Entered on "STARS" Yes ✓ No ____

COMMENTS OF CHAIRMAN MESERVE ON SECY-01-0072

Part 40 of our regulations has not been significantly revised in many years, with the result that some of the regulatory requirements do not reflect consideration of the need to protect public health and safety. In particular, the use of products and materials that are distributed under the general license in section 40.22 or that are subject to the exemption from licensing under 40.13 could result in doses in excess of the public limit.[1] Regulatory attention to the situation is appropriate.

Like Commissioners Dicus and Merrifield, I believe Option 5 provides the appropriate approach to address this problem. Although Option 4 has the advantage of allowing a tailoring of the application of requirements of Parts 19, 20, and 21commensurate with risk, the definition of thresholds for this tiered approach may prove unduly difficult to implement. Option 5, by contrast, would reduce the quantities of source material subject to the general license provisions and require a specific license for licensees who hold quantities in excess of the limit, thus subjecting those licensees to the requirements of Parts 19, 20, and 21. Option 5 should prove far easier to implement.

As described in SECY-01-0072, Option 5 encompasses the measures described in Option 4, including consideration of revising or removing exemptions for source material in Section 40.13. See SECY-01-0072, Att. 3, at 5, 6. I support this expansion because all uses that threaten to exceed appropriate dose limits should be brought under regulatory control.

The staff has noted that Option 5 has the disadvantage of increasing the number of specific licensees, which could increase regulatory burden both for the licensees and the staff. But if the subject activities threaten dose limits, it is fully appropriate that specific licenses be imposed. Our obligation to ensure protection of the public health and safety -- a consideration that was not paramount when the provisions now being examined were promulgated -- demands no less. However, we should ensure in the rulemaking process that the exposure scenarios suggesting that a specific use poses a threat to public health and safety are not unnecessarily conservative.

In my vote on SECY-00-0201,[2] I noted the need for consistency in the level of radiation protection applied to transfers of source material to exempt persons with those specified elsewhere in NRC regulations. This need for consistency applies equally well to the staff's current proposal. Under either Option 4 or 5, application of the requirements of Parts 19, 20, and 21 would ensure that source material distribution, coming as the result of redistribution from general licensees, would not result in annual doses likely to exceed 1 mSv/yr (100 mrem/yr) to members of the public under routine conditions, including disposal. SECY-01-0072, Att. 3, at 5, 7. By contrast, our license termination rule includes a 0.25 mSv/yr (25

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[1] See NUREG-1717, "Systematic Radiological Assessment of Exemptions for Source and Byproduct Materials" (Jun 2001). It has become apparent that some of the dose estimates in NUREG-1717 are unnecessarily conservative. Part of the rulemaking process should include evaluation of the relevant dose estimates.

[2] SECY-00-0201, "Proposed Rule - 10 CFR Part 40 Amendments to Require NRC Approval for Transfers from Licensees to Exempt Persons" (Sep. 25, 2000).

mrem/yr) limit to members of the public for unrestricted release (10 C.F.R. § 20.1402), and our regulations for low-level waste disposal impose similar limits (10 CFR § 61.41). These latter two requirements reflect recognition of the need to constrain the doses from individual sources to a fraction of the public dose limit.[3] A similar limit on doses to members of the public should be applied in determining the activities that should remain subject to a general license.

[3] Both NCRP and ICRP provide a public dose limit of 1 mSv/yr (100 mrem/yr). NCRP, in its latest recommendations on this subject, has a per-source or set-of-sources limit of 0.25 mSv/yr (25 mrem/yr) to ensure that total man-made exposure (excluding medical exposures) does not exceed 100 mrem/yr. NCRP, Limitation of Exposure to Ionizing Radiation, 47 (1993) (NCRP Rept. No. 116). ICRP similarly recommends a 0.3 mSv/yr (30 mrem/yr) constraint for prolonged doses from a single source, with assessments to verify compliance. ICRP, Protection of the Public in Situations of Prolonged Radiation Exposure, 30, 32 (1999) (ICRP No. 82). See also ICRP, Radiation Protection Recommendations as Applied to the Disposal of Long-lived Solid Radioactive Waste, 17 (1998) (ICRP No. 81)