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OFFICE OF SECRETARY
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Secretary, U.S. Nuclear Regulatory Commission
Docketing and Service Branch
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**COMMENTS REGARDING THE NRC ENHANCED PARTICIPATORY
RULEMAKING ON RADIOLOGICAL CRITERIA FOR DECOMMISSIONING**

The Dow Chemical Company is submitting the following comments regarding the Staff Draft Rule on Radiological Criteria for Decommissioning NRC Licensed Facilities, as set forth in the Federal Register published January 27, 1994.

A review of the Draft Rule and the Supplementary Information suggests that the focus has been placed almost entirely on the cleanup of the facilities involved in licensed activities, along with the removal of any regulated material and contamination from those sites. While the establishment of such criteria is important and welcome, the Draft Rule seems to discount the consequences of applying similar criteria on the disposal of the wastes associated with the cleanups, especially those containing long-lived isotopes such as thorium and uranium.

The "Thorium Problem" being experienced at a number of facilities, including several under the Site Decommissioning Management Plan, stems from the relatively high dose consequences of one or more isotopes in the thorium and uranium decay chains. Postulating the loss of institutional control and the loss of effectiveness of the engineered barriers would lead to these wastes being unacceptable for disposal - at any facility, at any location.

Imposing a scenario where any cap or containment is assumed to "disappear", as implied in the Draft Rule and Supplementary Information, would lead to any location failing the intruder-based dose limit test. Without a disposal option, the concept of decommissioning is rendered moot.

NRC recognized this plight at least tacitly, in setting forth Branch Technical Position SECY 81-576, which allowed various levels of residual contamination based on the type of site control which would continue after regulatory oversight is terminated. Even "conventional" LLRW disposal facilities have identified this as a problem. At least one Compact facility being developed under 10 CFR 61 is considering limiting the amount of uranium which would be accepted so as to be able to demonstrate compliance with the performance objectives.

The Draft Rule suggests that excessive "environmental or public harm" would justify considering less restrictive remediation levels, but it also indicates that some conditions may warrant not terminating the license and placing the site under perpetual regulation. It is not clear therefore, whether the Commission would allow the disposal of thorium and uranium materials, as opposed to long-term storage.

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It should also be recognized that the materials most likely to be affected by this situation tend to be present in large volume, such as contaminated soil. The bulk nature would create a significant disposal cost, even if a Part 61 facility were available that met the criteria.

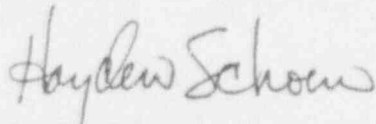
Development of an unrealistic scenario would rule out any potential disposal site unless the material was diluted considerably prior to emplacement. Dilution as the solution does not seem appropriate, or even desirable from a technical or political vantage point when reasonable alternatives exist.

We suggest that the Draft Rule be modified in recognition of the intractable situation posed by the application of the currently proposed criteria. A reasonable approach to the "Thorium Problem" would allow for on-site disposal or emplacement of the material at a licensed facility that could demonstrate the likelihood of protection of the public is not compromised, by satisfying the following tests:

1. Meeting the criteria proposed in the Draft Rule during the period of institutional control;
2. Restriction of allowable land use, in perpetuity, by means of covenants and/or deed restrictions;
3. Oversight and enforcement of land use restrictions by responsible and cognizant parties, including local citizen advisory groups;
4. Appropriate disposal technology, inclusive of an engineered disposal facility;
5. Relative risk posed by proximate and surrounding activities (industrial, other disposal, etc.); and
6. Technical, environmental, and economic viability of disposal options.

We believe that the adoption of a reasonable approach to disposal of these "problem" materials will provide better protection of the public and environment than the probable creation of a situation where decommissioning would become impossible.

If you have any questions or concerns, please contact Hayden Schoen at 517-636-3874.



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