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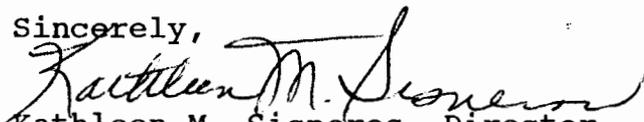
**RE: Draft Compliance Criteria for the Waste Isolation Pilot Plant  
(40 CFR 194)**

Dear Ms. Petti:

The New Mexico Environment Department has reviewed the U.S. EPA's Draft 40 CFR 194. Our staff did not have much time to review the document and therefore the attached comments should be viewed as preliminary. We will develop more comprehensive comments once the proposed compliance criteria are published in the Federal Register. We do however appreciate being provided the opportunity to comment at this early stage of development of the regulatory criteria and hope our comments have some influence on the final rule.

Should you require clarifications regarding any of the subject comments you may contact Mr. Benito Garcia of my staff at 505/827-4358.

Sincerely,

  
Kathleen M. Sisneros, Director  
Water and Waste Management Division

Enclosure

cc: Benito Garcia

940205



New Mexico Environment Department Comments  
on

A Draft Compliance Criteria for the Waste Isolation Pilot Plant (40 CFR 194)

The New Mexico Environment Department has completed its review of the EPA's Draft **Criteria for the Certification and determination of the Waste Isolation Pilot Plant's Compliance with Environmental Standards For the Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Wastes**. Due to the short time interval we were given to provide comments on this document, the review was not as thorough as it otherwise would have been. We therefore reserve our right to comment on all portions of the criteria once published for public comment, even should we have not commented on the same provision of the criteria as it appears in this draft.

If the proposed criteria apply only to WIPP, as is indicated by the title, why then does the title include spent nuclear fuel and high level wastes when neither are presently part of the WIPP project? The Land Withdrawal Act directs EPA to issue criteria for certification of compliance with the disposal standards - it does not state that the criteria should apply only to WIPP. If the criteria applies only to WIPP it should include only Transuranic Waste in the title and contain more specificity than does the present draft.

**Conditions of Compliance Certification and Determination.** This section provides for the reporting of "changes" from the application for certification which the Administrator will act upon. Should the Administrator determine that the certification will require modification, suspension or revocation, the state of New Mexico and the public should be notified.

**Content of Compliance Certification Application.** The phrase "disposal system and vicinity" is used a number of times in this section to qualify requirements for maps and other descriptive information. This phrase is imprecise and should be replaced with more specific directives. For example information concerning seismology and geomorphology should be provided for the region - ie. the Delaware Basin. Information concerning extraction and injection wells should be required within a fixed radius, say 5 miles. Lithologic cross sections need only be provided for the withdrawn area.

**Quality Assurance.** The language provided in (8) may result in confusion and the development and submission of QA plans where none are needed. Those activities which will require a quality assurance plan should be listed and the catch-all removed. One activity not listed is emissions monitoring. This activity is distinct from environmental monitoring (2) or the data described in (3). Additional guidance on quality assurance planning may be found in 10 CFR 50, Appendix B for nuclear facilities, ASME NQA-1 for design, inspection and test control and EPA QAMS-055/80 for environmental monitoring data.

The list of "quality indicators" should include "(6) Data Validation, i.e., how data will be validated by internal reviewers" and "(7) Data Verification, i.e. how co-located or duplicate measurements by independent agencies will be considered."

**Waste Characterization.** This section is ambiguous and should be re-written. For the existing inventory of TRU waste, physical sampling should be required in order to develop statistically representative data for the characteristics listed. Characteristics of wastes not yet generated should be based on conservative estimates derived from process knowledge, historical records and preliminary results of characterization of contaminated facilities slated for decommissioning and decontamination. Since it is not precisely known what the characteristics are which would maximize the transport of radioactive wastes to the accessible environment such assumptions may not prove to be conservative.

Item (1) should be reworded as follows:

- (1) Radionuclide, activity of each species;

The phrase "curie quantity" is not consistent with ICRP nomenclature, and the inventory should indicate how much activity for a given radionuclide is associated with each chemical/ionic "species". This is especially important considering how much solubility can vary from one species to another.

Because the actual activity of each radionuclide (and therefore each species of radionuclide) will vary over time due to ingrowth and decay, such activity should be based on calculated activities 100 years after disposal. This procedure would be consistent with what was provided in the Final Supplement to Environmental Impact Statement for assessing the long-term performance of the repository.

The characteristics listed under (7) as examples of other characteristics affecting the transport of radionuclides should include a statement about waste containers. The carbon steel drums and bins containing the wastes will contribute the most gas, generated by anoxic corrosion of the steel.

**Compliance.** We are not sure why 300 "complementary cumulative distribution functions" (CCDFs) are required. It would seem that only significant processes and events would need to be calculated. As a means of demonstrating compliance with 191.13(a), all CCDFs generated should be used. Calculation of a mean CCDF may allow processes or events of lesser significance to mask the results of

a few very significant processes.

**Monitoring.** Item (c) states "To the extent practicable, monitoring of parameters which may affect the transport of radionuclides..." should state, "...which may affect or indicate the transport of radionuclides..." It is not specified how long the monitoring of the parameters is to be conducted and the practicability of monitoring any of the parameters listed is surely a function of duration. All the parameters indicated could easily be monitored during the operational phase of some 30 years. However, monitoring during the post operational phase will be accomplished only with a significant commitment of resources. If it is EPA's intent to require monitoring of the repository over the long term it should be stated clearly. Generally the intent of placing radioactive waste in a geologic repository is to assure long-term isolation of the wastes through siting and engineering of the repository. Long-term monitoring should only be required for environmental parameters such as groundwater in the Culebra, etc.

**Individual and Ground-Water Protection Requirements.**

**Compliance.** The comments provided for Compliance under Containment Requirements apply equally here.