

October 9, 2002

Paul J. Merges, Ph.D., Director
Bureau of Radiation, DSHM
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7255

Dear Dr. Merges:

I am responding to your May 22, 2002, letter transmitting New York State Department of Environmental Conservation (NYSDEC) comments on the U.S. Nuclear Regulatory Commission (NRC) Final Policy Statement on "Decommissioning Criteria for the West Valley Demonstration Project at the West Valley Site." Enclosed are specific responses to your comments.

I am pleased that NYSDEC is in general agreement with the application of the NRC License Termination Rule as the cleanup criteria for the West Valley site. I also appreciate NYSDEC's comment that NRC has taken the concerns of the State of New York and the interested public into account, and has applied to the West Valley Demonstration Project the same cleanup criteria as those applicable to NRC-licensed facilities.

NRC looks forward to working with NYSDEC and other stakeholders on the decommissioning of the West Valley site. Should you have any further questions on this matter, please contact me at (301) 415-7319, or Larry Camper, of my staff, at (301) 415-7234.

Sincerely,

/RA/

John T. Greeves, Director
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

Enclosure: As stated

cc: Alice Williams, DOE
Paul Giardina, EPA
Paul Piciulo, NYSERDA
Adela Salame-Alfie, NYSDOH
Cyrus Schindler, Seneca Nation of Indians

Response to Comments of the New York State Department of Environmental Conservation on the Nuclear Regulatory Commission's Final Policy Statement on Decommissioning Criteria for the West Valley Demonstration Project

Each of the New York State Department of Environmental Conservation's (NYSDEC's) comments are summarized and addressed below.

Dose Limits

Comment:

NYSDEC agrees with the dose limit of 25 mrem/year to the average member of the critical group for unrestricted release of any part of the site. NYSDEC also agrees that the restricted release provisions in 10 CFR 20.1403 may be considered for certain parts of the site, provided that all reasonable efforts have been made to reduce the source term to the lowest level technically feasible. NYSDEC has reservations about the application of alternate criteria, as provided in 10 CFR 20.1404. Because of the long-lived nature of the source term, it will be difficult to demonstrate, as required in 10 CFR 20.1404(a)(1), that doses from all sources combined will not exceed 100 mrem/year.

Response:

We recognize NYSDEC's concern with the application of alternate criteria as provided in 10 CFR 20.1404, given the long-lived nature of the source term at the West Valley site.

Compliance with the alternate criteria will require an analysis of possible sources of exposure that provides "assurance that public health and safety would continue to be protected, and that it is unlikely that the dose from all man-made sources combined, other than medical, would be more than 100 mrem/year." [10 CFR 20.1404(a)(1)] The use of alternate criteria also requires the approval of the Commission, after consideration of U.S. Nuclear Regulatory Commission (NRC) staff's recommendations that will address any comments provided by the U.S. Environmental Protection Agency and any public comments submitted pursuant to 10 CFR 20.1405, "Public Notification and Public Participation." In addition, as noted in the Final Policy Statement, the Commission recognizes that health and safety and cost-benefit considerations may justify the evaluation of alternatives that do not fully comply with NRC's License Termination Rule (10 CFR Part 20, Subpart E).

Waste Incidental to Reprocessing Determination

Comment 1:

NYSDEC does not concur with application of the concept of Waste Incidental to Reprocessing (WIR) at West Valley. First and foremost, NRC has not fully addressed the issue of the precedent-setting nature of the application of WIR to this site, given that West Valley is not a federally owned facility. To date, the WIR concept has only been applied to tanks on Federal land. This has provided some assurance that the Federal Government will retain responsibility for such decisions, at least as long as the Federal ownership of that land continues. However, in this case, NRC has sanctioned the use of this concept on state-owned land, and where the Federal agency involved has made it clear that, at present, it has no intention of seeking Federal ownership of the site.

Response:

NRC recognizes that the West Valley site is not a federally owned facility. We do not believe Federal ownership of the West Valley facility is a prerequisite for the application of WIR. To the extent that ownership of the land associated with the tanks is an issue for applying the performance objectives of 10 CFR Part 61, in our view, ownership by either the Federal or State government is sufficient. While 10 CFR Part 61 is not specifically applicable to the tanks, the result of a WIR determination is that the residual waste can be treated as low-level waste. The approach for institutional control for low-level waste under 10 CFR Part 61 is that the disposal area must be owned by either a State or the Federal government. This is also consistent with the Commission's view in the Final Policy Statement for West Valley that "both DOE and NYSERDA represent governmental entities and either would be acceptable as a long-term custodian."

Comment 2:

Another serious deficiency in NYSDEC's view is the decision by NRC not to include the requirement that the concentration of the residual radionuclides not exceed the applicable concentration limits for Class C waste. This was a condition of the WIR determination for the Hanford Reservation, and NRC has not, to date, explained why it is not explicitly called for at West Valley. NYSDEC views this as an essential criterion, particularly in view of the fact that Congress, in the 1985 Low-Level Radioactive Waste Policy Amendments Act (LLRWPA), clearly specified that the U.S. Department of Energy (DOE) is to be responsible for Greater than Class C (GTCC) radioactive wastes.

Response:

In 1993, NRC included a WIR provision that the concentration of the residual radionuclides removed from tanks and disposed of as low-level waste not exceed the applicable concentration limits for Class C waste. However, more recently in 2000, the Commission did not include that provision in the advice it gave DOE on Savannah River tank closure. [NRC Staff Requirements Memorandum, "SECY-99-0284, Classification of Savannah River Residual Tank Waste as Incidental," May 30, 2000] In our view, while the concentrations and potential heterogeneity of wastes must be appropriately represented in the dose modeling, the physical processes associated with mobilization of wastes can result in instances where ultimate mobilization rates are not controlled by waste concentrations. Consequently, the NRC does not believe that the concentration of material is a sufficiently direct measure in WIR determinations from a public health and safety perspective that it should be a controlling element in WIR determinations. As noted in the Final Policy Statement, the Commission is taking a risk-informed performance-based approach that focuses on dose as the measure of protection for the public, an approach which allows:

"DOE the flexibility to develop innovative approaches to meeting the performance objectives in Part 61. In effect, DOE should undertake cleanup to the maximum extent that is technically and economically practical and should achieve performance objectives consistent with those we demand for the disposal of low-level waste. If satisfied, these criteria should serve to provide protection of the public health and safety and the environment and the resulting calculated dose would be integrated with the resulting calculated doses for all other remaining material at the NRC-licensed site."

As a result of NRC's not including a GTCC limitation, you raised the question of DOE's obligations under the LLRWPA. Section 3(b)(1) of the LLRWPA provides that the Federal

Government is responsible for the disposal of GTCC material. DOE is the government agency responsible for implementing that provision of the LLRWPA. Section 3(b)(2) of the LLRWPA provides that the disposal of GTCC material resulting from NRC licensed activities, such as the GTCC from West Valley, must be in a facility licensed by the NRC. Specifically, the material must be disposed of at a facility that the NRC determines to be adequate to protect the public health and safety. NRC will make a licensing decision concerning the WIR material when the site is returned to NRC regulatory oversight, if NYSERDA seeks license termination. The disposal of any GTCC material in a manner that meets the Commission's WIR guidance together with the License Termination Rule (LTR) criteria should, as noted above, be protective of the public health and safety, and be consistent with the protection afforded by 10 CFR Part 61 and the LTR. In our view, this process will satisfy the requirements of section 3(b)(2) of the LLRWPA. If the WIR determination cannot be made at the time of license termination, then the responsibility of the Federal Government/DOE to dispose of GTCC material will need to be satisfied.

Comment 3:

There are complicating factors involved in that there is an inconsistency between NRC and NYSDEC concentration averaging methods. NRC accepts concentration averaging of the activity in wastes not only over the volume of the waste and any contaminated materials, but also over the volume of any fill material, such as concrete grout, placed in a waste container to ensure physical stability. Under our low-level radioactive waste regulations [6 NYCRR Part 382-80(h)], which NRC found to be compatible with its own, we would not allow averaging over the mass of the fill material. Since this waste would be permanently placed on State land, the State's regulations should apply.

Response:

The fact that WIR may remain at West Valley does not mean the New York regulations are governing standards, even if the NRC license is terminated at the site and the WIR will permanently remain at the site. As you know, the West Valley facility is subject to a 10 CFR Part 50 license. As such, NRC has regulatory authority for this license under the Atomic Energy Act (AEA). This license was suspended in 1981 to execute the 1980 West Valley Demonstration Project (WVDP) Act. Following completion of DOE activities under the WVDP Act, the license will be reinstated. Thereafter, NYSERDA may seek to terminate all or a portion of the license. In our view, New York State does not have jurisdiction to apply its regulations to the WIR, either before or after license termination. WIR is by definition, waste material resulting from the separation, in a production facility, of special nuclear material from irradiated nuclear reactor fuel. Under the AEA, NRC is responsible for protecting the public health and safety from the risks associated with radioactive waste from the reprocessing of spent reactor fuel, without regard to whether the waste is treated as high-level waste or managed as low-level waste (if a WIR determination is made). In accordance with Section 274 (c)(4) of the AEA, and 10 CFR 150.15 (a)(4), NRC has not relinquished its authority for the transfer, storage, or disposal of this material to the State. Article II.D. of the October 15, 1962 Agreement Between the United States Atomic Energy Commission and the State of New York for the "Discontinuance of Certain Commission Regulatory Authority and Responsibility within the State Pursuant to Section 274 of the Atomic Energy Act of 1954, as Amended," reflects that disposal of certain material may be retained by the Commission and the Commission has so retained the authority for this material as set forth in 10 CFR 150.15. If there is a radiological problem with

this material after license termination, NRC, and not the State, has the responsibility and authority to address it.

Comment 4:

The high-level waste at West Valley was created, stored, and managed under an NRC license. Therefore, the NRC is obligated to make any WIR determination for this material - not the DOE, and certainly not a DOE contractor as has been proposed.

Response:

The WVDP Act assigns DOE the responsibility of removing the high-level waste from the site. While the WVDP Act assigns NRC responsibility to establish the decommissioning criteria, the Commission views its authority under the WVDP Act as sufficiently broad to advise DOE of its views as to the standards for WIR, and the Commission did so in the Final Policy Statement. However, the Commission believes the decision for declaring some West Valley waste as WIR is within DOE's responsibility and authority.

The NRC will be involved in reviewing DOE's application of the WIR criteria and the WIR determinations at West Valley. The decommissioning environmental impact statement is expected to address DOE's WIR determinations, and NRC will review and comment on DOE's WIR determinations as a Cooperating Agency. NRC will be reviewing the DOE's WIR determinations in NRC's decision on whether the preferred alternative meets the LTR (if indeed WIR is part of the preferred alternative).