



To: Citizen Task Force
From: Melinda Holland, West Valley Citizen Task Force
Subject: Summary of December 21, 1998, Task Force Meeting
Date: January 18, 1999

Next Meeting:

The next Citizen Task Force (CTF) meeting is scheduled for:

Date: Wednesday, February 3, 1999
Time: 7:00 p.m. - 9:30 p.m.
Location: Ashford Office Complex
9030 Route 219, West Valley, NY

A draft agenda for the February 3 meeting is attached. If you have questions or comments regarding the upcoming meeting or about this summary, please contact Melinda Holland at (864) 457-4202 or Tom Attridge at (716) 942-2453.

CTF Attendees:

Attending were: Joe Patti, Ray Vaughan, Barbara Mazurowski, Eric Wohlers, John Pfeffer, Paul Piciulo, Warren Schmidt, Rich Tobe, Bill King, and Murray Regan. Not attending were: Blake Reeves, Nevella McNeil, Tim Siepel, Lana Redeye, Pete Scherer, Larry Smith, Bridget Wilson, and Pete Cooney.

Regulatory Agency Attendee: Jack Krajewski, NYSDEC

December 21 Meeting Summary:

Tom Attridge and Melinda Holland opened the meeting by reviewing administrative issues and the agenda. They announced that Blake Reeves is planning to submit a letter of resignation from the Task Force and that NYSERDA would make a recommendation for replacing him. Tom also mentioned that Lana Redeye is no longer employed by the Seneca Nation of Indians and NYSERDA will be contacting Duane Ray, President to seek a replacement for the CTF.

At the beginning of the meeting, Rich Tobe mentioned that DOE headquarters had contacted him to let the CTF know that the DOE Secretary would not be able to attend a meeting at West Valley with the Task Force. Jim Owendoff, the Acting Deputy Secretary for Environmental Management may attend, but a date had not been set.

The focus of this Task Force meeting was finalization of the CTF's written comments to the Nuclear Regulatory Commission in response to its Draft Decommissioning Criteria for West Valley (SECY-98-251, October 30, 1998). NRC will hold a meeting (open to the public) on

January 12 at 9:00 a.m., EST, in Washington, DC, to hear presentations and ask questions of the CTF, DOE, NYSERDA, NYSDEC, and the NRC staff who prepared the criteria paper. The CTF selected Rich Tobe to testify on its behalf. Ray Vaughan has requested to speak on behalf of the Coalition. Although Mr. Vaughan has not yet been granted time on the agenda, he plans to attend the meeting as an observer. The format will be somewhat like a Congressional hearing: a presentation by the agencies and CTF, followed by questions from the Commissioners to the representatives of the various organizations. The proceedings will be videotaped and transcripts will be available.¹ The CTF's written comments will be submitted at least one week before the public meeting.

Eric Wohlers and Rich Tobe explained that the CTF work group which prepared the draft comments had met three times over the last few weeks and that the workgroup is seeking input to and approval of the document by the full CTF. Pete Scherer, Bridget Wilson and Nevella McNeil telephoned to express support for this final draft, but they were unable to attend this meeting.

In introducing the CTF workgroup's draft paper, Rich Tobe explained that a key concern is that postponement of setting standards until after the site identifies the preferred alternative and completes the SEIS seems to invite a standard different from that required by NRC's License Termination Rule. Other key concerns with the NRC document include its lack of clarity, use of the incidental waste criteria, and failure to adequately address the requirements of the West Valley Demonstration Project Act (WVDPA). He also stated that West Valley is a unique site and should require a unique standard different from other sites. That standard should be provided now, and not after the preferred alternative is developed.

Barbara Mazurowski, DOE, and Paul Piciulo, NYSERDA, provided the CTF with a verbal summary of the comments their agencies would be submitting, respectively. A copy of each agency's comments on the NRC Decommissioning Criteria is attached.

A NYSDEC representative stated that Paul Merges, chief of their radiation program, will make the agency's presentation to the NRC. A copy of NYSDEC's comments on the SECY paper are attached.

The CTF next worked out edits to the draft comments and approved the resulting comments for submittal to the NRC as the CTF's comments. A copy of the CTF's paper is attached.

Observer Comments

An observer congratulated the CTF on doing an excellent job in developing and reaching agreement on this document.

Next Steps

- The next meeting was set for February 3.

¹For transcripts of the January 12 meeting at NRC, contact Sonja Allen, West Valley Nuclear Services, at (716) 942-2152 or allens@wv.doe.gov.

West Valley
Citizen
Task
Force

December 22, 1998

Dr. Shirley A. Jackson, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

RE: PUBLIC BRIEFING COMMENTS
Commission Paper SECY-98-251
Decommissioning Criteria For West Valley

Dear Chairman Jackson:

1 Initially, the West Valley Citizen Task Force (CTF) would like to thank the
2 Commission for kindly accommodating our request for a postponement of the
3 earlier scheduled public briefing regarding the proposed decommissioning criteria
4 for the West Valley Demonstration Project site in SECY-98-251 (Paper). Since
5 each member of the CTF was appointed to represent one of several unique
6 constituencies, it is likely we would not have been able to schedule the necessary
7 number of meetings required to discuss and formalize a consensus set of
8 comments under the earlier time frame.

9 We would also like to thank the staff of the NRC for its active involvement in
10 the meetings of the CTF over these last two years. NRC staff have attended
11 meetings in West Valley, have participated in many of our meetings via video
12 conference and on several occasions have briefed the CTF. In particular we wish
13 to thank Jack Parrott for his attendance at our meeting on November 17, 1998,
14 where he briefed us on the Paper.

15 The West Valley CTF began its mission in January, 1997 to develop a set of
16 stakeholder guidelines and recommendations which were to be presented to the
17 West Valley Site Managers (USDOE/NYSERDA) to aid in completing the EIS
18 and selecting a preferred alternative for the completion of the West Valley
19 Demonstration Project and long term management of the site. While



20 considering the many complex issues involving the twelve distinctive waste management areas
21 and listening to numerous presentations explaining the rationale behind present radiation dose
22 estimates for various exposure scenarios, the CTF questioned many times as to the apparent
23 futility of discussing such risks or evaluating the various cleanup alternatives without knowing
24 what NRC criteria and rules would apply to decommissioning and/or govern reliance on
25 institutional controls. We had been informed on several occasions that the release of official
26 NRC guidance on these subjects was forthcoming and we had hoped it would be available for our
27 consideration during the final development of our July 1998 report.

28 And so it was with great anticipation that we received SECY-98-251. Having read the Paper
29 and then convening a CTF meeting to discuss the proposal, it quickly became apparent that the
30 Paper did not meet with the general expectations of the CTF. In fact, rather than resolving some
31 of our outstanding questions it raised some new ones.

32 We would respectfully request that the Commission consider the following comments and
33 recommendations submitted by the West Valley CTF prior to taking any official action to
34 approve the approach presented for establishing decommissioning criteria for the West Valley
35 site. Where indicated, references in brackets refer directly to the July 1998 CTF report found as
36 Attachment 4 in the Paper.

37
38 SECY-98-251 Suffers from a Lack of Clarity

39 We have found it difficult to determine the intended meaning of significant portions of the
40 Paper. We have spent a lot of time debating the meaning of certain key concepts and how one
41 part of the Paper may modify other parts. For example on page 4, the Paper states in part that
42 "...the staff proposes to inform DOE and NYSERDA that they should use NRC's License
43 Termination Rule criteria as proposed decommissioning criteria for that portion of the EIS that
44 covers areas of residual waste or the closure of existing waste disposal areas." The criteria are
45 then summarized to include unrestricted use criteria (25 mrem/year to average member of critical
46 group plus ALARA requirements), restricted use criteria (25 mrem/year to average member of
47 critical group plus ALARA requirements plus institutional controls) and a safety net or maximum
48 exposure level in the event of the failure of institutional controls (100 or 500 mrem/year to
49 average member of critical group plus ALARA requirements). However on page 5 the Paper
50 states that "Because of long-term erosion and source-term release problems at the West Valley
51 site, applying the NRC assumption of time-limited institutional control will likely make all

52 alternatives in the draft EIS that leave residual or stored waste on site, nonviable under the
53 proposed decommissioning criteria..." It thus appears the Paper is recommending the use of
54 criteria which cannot be achieved at this site. This recommendation, the acknowledgment that it
55 is "nonviable", and the lack of specificity on any other criteria leaves the CTF unsure as to what
56 the Paper is proposing and what the NRC will have adopted should it approve this Paper.

57

58 Much is already known about the West Valley Site

59 The Paper proposes that the "prescription of decommissioning criteria (by the Commission)
60 will be better informed by the EIS." The sentence from which this recommendation comes is
61 preceded by a discussion on the criteria that will be used to justify a departure by DOE and
62 NYSERDA from the requirements found in the License Termination Rule.

63 The CTF wishes to draw to the Commission's attention that there has already been a draft
64 EIS prepared for decontamination and decommissioning of the West Valley site. Although no
65 preferred alternative was identified, the data contained in the draft EIS has not been called into
66 question other than that to some extent more data has been sought. The draft EIS which was
67 released in March 1996 is voluminous and exhaustive. It will be the basis for the new EIS. The
68 characteristics of the waste at the site and its location are well known, as is the potential to cause
69 harm to humans and the environment. The CTF does not believe the new draft or final EIS are
70 necessary for the NRC to establish decontamination and decommissioning criteria at the West
71 Valley site.

72

73 CTF Alternative Recommendation

74 The March 1996 Draft EIS prepared by DOE and NYSERDA identified five alternatives for
75 the West Valley site. Alternative I would entirely remove the waste while Alternatives II-V
76 would permanently retain them on site. In the July 1998 CTF Final Report, the CTF essentially
77 recommended a new alternative which combines long-term on-site storage for some hard to
78 move wastes, with eventual removal off site.

79

80 Two Simple Questions

81

82 The CTF, in considering the Paper, poses two fundamental questions.

83

84 1. Should the Standard for the decontamination and decommissioning of the West Valley
85 site be different than that for the rest of the country?

86

87 2. Should the NRC deviate from its normal practice in which it sets in advance clear,
88 objective standards for the protection of human health and the environment so as to
89 guide, influence and finally judge proposed activities?

90

91 The CTF has concluded that the answer to both questions is no.

92

93 Decontamination Standard

94 The NRC, in its License Termination Rule (10 CFR Part 20, Subpart E), established criteria
95 which must be met in order for a license to be terminated. For purposes of the West Valley site,
96 the part of the Rule which is most relevant deals with the length of time that institutional controls
97 can be relied upon to maintain protective features and establishes a maximum allowable
98 exposure should institutional controls fail. The Paper proposes that the NRC allow that these
99 standards be "departed" from if the EIS shows "some justification" regarding the balance
100 between gain and harm or prohibitively high cost or technical infeasibility. This could be done
101 so long as there is a "sufficient level of protection of human health and safety and the
102 environment and a reasonable balance of costs and benefits and represents a viable approach."
103 The Paper also states "Besides cost, offsite removal of significant amounts of waste may be
104 difficult to implement because of a lack of access to offsite waste disposal. Relocating the
105 radioactive waste may be controversial and may substantially delay site decommissioning and
106 closure."

107 From these statements it appears that the Paper is proposing that the West Valley site be
108 decommissioned to a less protective standard because to meet the License Termination Rule
109 standards would be costly, time consuming, controversial and prolonged. These same factors
110 will be present at most if not all other sites to which the License Termination Rule will apply
111 across the nation. Even if the West Valley site is more costly, more time consuming, more

112 controversial and have more delays, we believe the standards for determining if the site is
113 sufficiently safe to allow it to be declared decontaminated and decommissioned should still be
114 the same as those for the rest of the nation. The Paper does not indicate nor justify why West
115 Valley should be treated differently. We call on the NRC to reject this approach.

116 We prefer instead that the NRC apply the standards in the License Termination Rule, that it
117 recognize that decontamination and decommissioning of the West Valley site may not be
118 possible for a prolonged period of time and that certain interim protections must be taken. We
119 reject any attempt to weaken standards due to the difficulty in having them implemented or the
120 delay that may be inherent in a preferred alternative.

121 If the NRC does not apply the License Termination Rule to West Valley, it may have to
122 conduct a separate NEPA proceeding to support a unique decontamination and decommissioning
123 standard for West Valley.

124

125 Prescribe or "Postscribe"

126 The Paper proposes that the NRC adopt an "approach" for the setting of requirements but
127 that the formal adoption of standards occur at a later date, after the development of a draft or
128 final EIS. In most circumstances the NRC has set in advance clear, objective standards for the
129 protection of human health and the environment so as to guide, influence and finally judge
130 proposed activities. Both based on the sound past practice of the NRC and based on a plain
131 reading of the West Valley Demonstration Act, the NRC should prescribe (that is set in advance)
132 standards for the Decontamination and Decommissioning of the West Valley site.

133

134 Delaying Prescription of Definitive Criteria

135 As noted, it had been anticipated that the NRC was preparing a definitive set of
136 decommissioning criteria which the USDOE and NYSERDA would necessarily have to aspire to
137 comply with in the completion of the EIS and final selection of a preferred alternative for cleanup
138 of the site. Rather, NRC staff are asking the Commission to merely approve an "approach" to
139 developing criteria which, in reality, only serves to delay that official action which is required by
140 the WVDP Act. The CTF believes that the establishment of such criteria would not just be a
141 "significant component" of an EIS as stated in the Paper's summary (p. 1), but should be a
142 prerequisite. Furthermore, we are perplexed by the statement on p. 3 whereby if the preferred
143 alternative does not conform to the presently proposed decommissioning criteria, then

144 DOE/NYSERDA might “propose alternative criteria” and staff would then subsequently propose
145 a new approach for approval by the Commission. We clearly do not understand under what
146 authority or by what precedent a regulated agency could, in effect, prescribe the rules under
147 which they are governed. This is clearly the province of NRC alone.

148 At various times the CTF has been reassured by staff from all involved agencies that
149 protecting both worker and public health and safety is the single most important criterion relied
150 upon when making site management decisions. We felt so strongly about this issue that several
151 references were incorporated into our report [see Section III, Items 1 and 17; Section IV, Item 2].
152 NRC has already established definitive allowable radiation dose rates on a national basis in the
153 License Termination Rule. Should acceptable dosage rates not be the same for all
154 communities/populations, irrespective of geographical location? The CTF contends that the
155 NRC should establish firm criteria now, not just flexible guidance. Detailed EIS analyses of long
156 term risks and short term implementation risks for the various alternatives should not be based on
157 assumptions of what the applicable decommissioning criteria might be. The preferred alternative
158 which will be developed in this process should be tailored to meet the NRC’s “prescribed”
159 criteria, not vice versa.

160

161 Facilitating DOE Fulfillment of WVDPA Requirements

162 Should the NRC approve the proposed approach it would give the obvious impression that
163 they are providing DOE extraordinary leeway in completing the EIS, fulfilling WVDP Act
164 requirements, and thereby facilitating DOE’s accelerated departure from the site. The CTF has
165 taken the position that a continued federal presence at the site will be essential to implementing
166 any preferred alternative cleanup, due to multiple factors including the burden of costs, necessary
167 reliance on defined institutional controls, the continued presence of wastes that originated from
168 DOE activities or came from other non-commercial sources, etc. [see Section III, Item 18;
169 Section IV, Items 8 and 9].

170 Furthermore, it appears that by broadening the definition of the term “decommissioning
171 criteria” and applying the “incidental waste” classification to residual HLW in the tanks at West
172 Valley, that NRC is going to great lengths to keep every option open to DOE and paving the way
173 for an expedited federal exit. The CTF recognized in the July report that some wastes will need
174 to remain at the site for a prolonged period of time, but that the only appropriate final action is
175 eventual removal from the site [Section III, Item 5].

176 Concerns With Extended Institutional Control

177 Perhaps the greatest shortcoming of the Paper is the failure to resolve the critical questions
178 concerning establishment of definitive guidelines for allowing extended use of institutional
179 controls (IC). 10 CFR 61 clearly states that IC cannot be relied on for more than 100 years, and
180 everyone unequivocally agrees that the West Valley site has significant nondesirable
181 characteristics that preclude indefinite reliance on active-maintenance IC. The CTF believes that
182 the concept of an "unlimited" IC period as assumed in the DEIS is a nonviable option [Section
183 III, Items 3, 4, 13 and 15; Section IV, Items 3 and 5]. Additionally, the NRC should not consider
184 relegating their authority to say what kind of institutional controls are appropriate to rely upon.
185 Especially not to the USEPA which has altogether different criteria.

186 The CTF believes (based on currently available information) the site is not suitable for the
187 long-term, permanent storage or disposal of long-lived radionuclides and that final action with
188 regard to these wastes is for them to be removed from the site. (Section III, Items 3 and 5). The
189 CTF may reconsider its opinion of site suitability if new evidence based on site characterization
190 is presented to the CTF in the near future. The CTF further understands that certain factors could
191 result in interim onsite storage with associated IC. Several assumptions made were that over
192 time permanent disposal options may develop, or new treatment/remediation technologies would
193 be discovered, or that a prescribed period of natural radioactive decay would make exhumation
194 of certain wastes safer at a later date. [Section III, Items 9 and 11; Section IV, Item 10]. For all
195 of these reasons the CTF recommended a path of retrievable interim storage with IC and eventual
196 off site disposal. Again, we feel that definitive NRC requirements for reliance on IC are a
197 prerequisite to the meaningful risk analyses required for completing the EIS and selecting a
198 preferred alternative.

199 The CTF recognizes that portions of the Center are not fully characterized and therefore
200 cannot be judged with certainty to be either suitable or unsuitable for long-term, permanent
201 storage or disposal of wastes under current regulations. Under present conditions, the CTF does
202 not believe that any portion of the Center can be considered suitable for long-term, permanent
203 storage or disposal of wastes.

204

205 Application of Incidental Waste Rule

206 The proposed classification of residual HLW as incidental waste is a new concept not
207 previously presented to the CTF. The NRC staff proposal indicates that the resulting treated

208 waste will not exceed applicable limits for Class C LLW as per 10 CFR 61. Without sufficient
209 additional information as to the treatment methods, specific waste characterization, and estimated
210 volumes of waste involved, it is difficult to make an informed assessment of the appropriateness
211 of applying such criteria. Regardless, as presently proposed the criteria are merely a suggested
212 guideline, or worse, a deliberate means of allowing DOE to reclassify the HLW collected from
213 tank residue and decontamination of the process building and vitrification facility as LLW.
214 Again, this position would allow DOE to be absolved of responsibility, whereafter NRC will
215 reinstate the State license and hold New York wholly accountable for meeting the latent NRC
216 criteria.

217 In summation, the CTF is resolutely opposed to the approval of SECY-98-251 in its present
218 form. The proposal does not set forth decommissioning criteria as advertised but rather is seen
219 as a guise for providing DOE defacto authority to dispose of their wastes onsite at the eventual
220 expense of New York. NRC has a statutory obligation to make discretionary decisions at West
221 Valley on the critical issues of decontamination and decommissioning, disposal, license
222 resolution, institutional controls, and has statutory authority to make discretionary decisions on
223 the definition of transuranic waste. This proposal if approved will render no actual decision on
224 any of these subjects and perhaps will only add considerably more confusion to the perceived
225 role of NRC in regulating the decommissioning and long term management of the West Valley
226 facilities. Approval of this approach which defers any decisions of consequence until after the
227 EIS is completed, will certainly erode future NRC authority. Public suspicion of collusion
228 between NRC and DOE should also be expected.

229 The West Valley CTF urges the Nuclear Regulatory Commission to contemplate the
230 following suggested actions:

- 231 1. Disapprove the approach to setting decommissioning criteria for West Valley as
232 proposed by NRC staff in SECY-98-251.
- 233 2. Comprehensively re-examine present policy concerning the NRC/DOE relationship and
234 also ponder the obligatory role of NRC in fulfilling their regulatory responsibilities from legal,
235 social, and ethical perspectives. The CTF believes that such policy decisions warrant the highest
236 level of consideration.
- 237 3. Direct staff to develop a policy statement for Commission approval, prior to completion
238 of the EIS, setting forth the definitive criteria for decommissioning at West Valley which are
239 consistent with all statutory requirements.

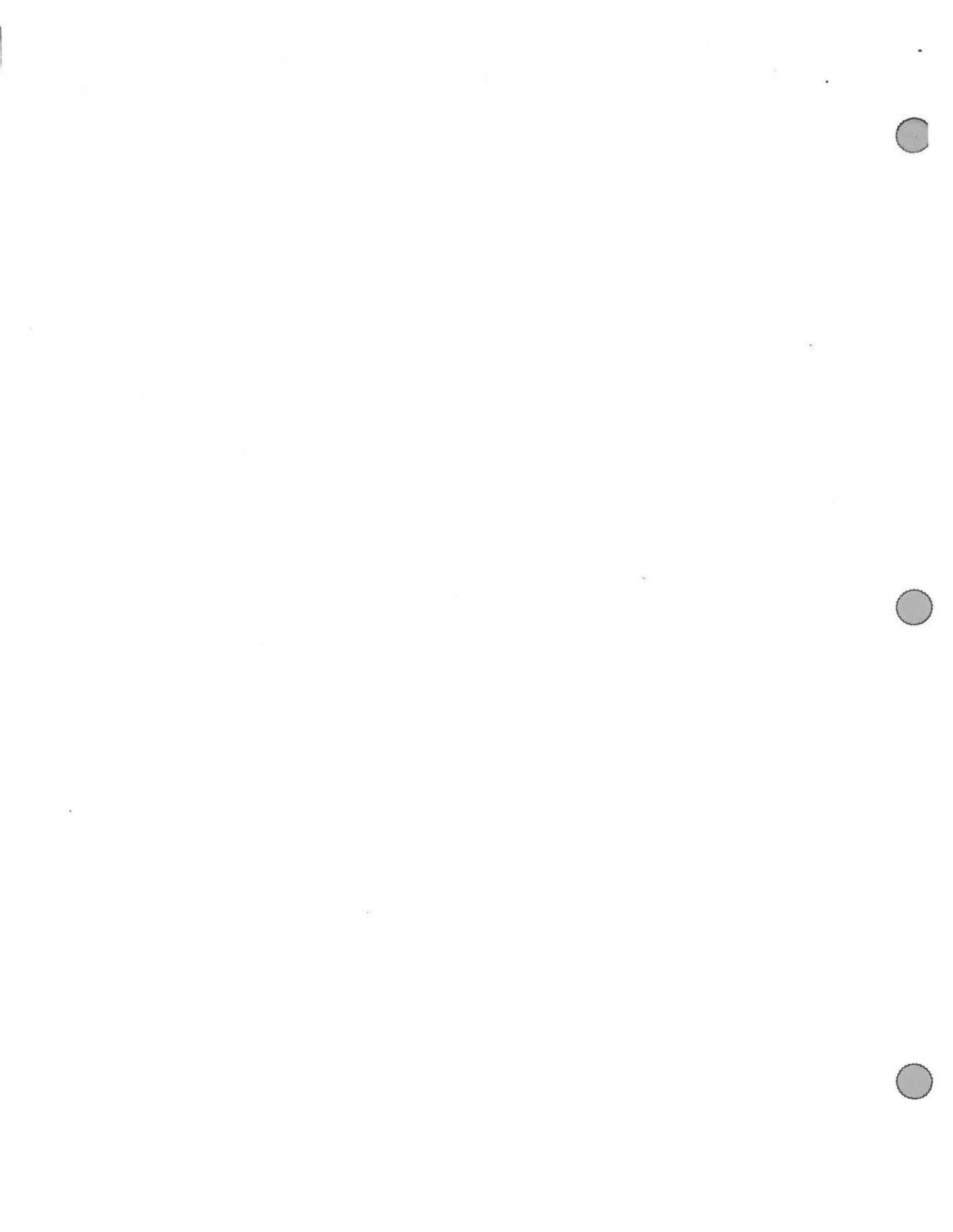
240 4. Direct staff to develop a policy statement for Commission approval, prior to completion
241 of the EIS, setting forth definitive criteria for allowing time-limited institutional controls which
242 are consistent with all statutory requirements.

243 5. Direct staff to develop a policy statement for Commission approval setting forth a clear
244 definition of incidental waste for West Valley and whether such definition conflicts with policy
245 already set for transuranic waste.

246 6. Direct staff to develop a policy statement for Commission approval setting forth the
247 criteria for reinstating the NRC license following completion of the WVDP.

Respectfully submitted,

West Valley CTF





UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 24, 1998



Mr. Raymond C. Vaughan
135 East Main Street
Hamburg, New York 14075

Dear Mr. Vaughan:

I am responding to your personal letter dated November 14, 1998, and your letter on behalf of the Coalition on West Valley Nuclear Wastes dated December 2, 1998, regarding the U.S. Nuclear Regulatory Commission staff's proposed decommissioning criteria for the West Valley site (SECY-98-251). Please be assured that your comments will be taken into account when the Commission considers its decision on this matter.

The Commission will discuss the West Valley decommissioning criteria issues in an open meeting on January 12, 1999. The West Valley Citizen Task Force, of which you are a member, and other stakeholders, have been invited to address the Commission in that meeting. Your written statements and concerns will receive the same consideration as will the oral presentations at the open meeting. Thank you for your interest in this matter.

Sincerely,

Shirley Ann Jackson

Project No. M-32

cc: T. Attridge, NYSERDA (for the CTF) ✓
B. Mazurowski, DOE
P. Merges, NYSDEC
P. Piciulo, NYSERDA



In 1991, NYSDEC entered into a Cooperation Agreement with the NRC regarding the decommissioning of the former Cintichem medical isotope production reactor and hot lab facility in Tuxedo, New York, another co-regulated site in New York State. This cooperative process worked very well at that site and we hope that the Commission will recognize the practicality of such an agreement. While the situation at the WNYNSC does not directly parallel that at the former Cintichem facility, there are enough similarities between the two, and much greater regulatory complexity at the WNYNSC, to warrant a similar cooperative approach.

Due to the NRC's and the State's regulatory responsibilities at this site (the State's include radioactive materials as well as solid waste, hazardous waste, water, and air), we believe it is imperative that such a cooperative approach be utilized for establishing criteria for a decision on final site disposition that encompasses all involved regulatory agencies and potential environmental impacts. Any non-comprehensive approach to establishing said criteria is not in the best interests of the people or environment of the State of New York and may result in less expeditious cleanup, greater costs, and a lesser level of protection for our environment and residents.

NYSDEC proposes that NRC and the NYSDEC radiological regulatory agencies meet in the near future to discuss creation of a West Valley cooperation agreement. This agreement should be in place prior to adoption of criteria used to approve final site disposition. NYSDEC appreciates the verbal assurance of NRC staff that they wish to work cooperatively with our Department; however, it is in the best interests of all parties to formalize such an approach

3. Dose-based criteria should include all pathways and should apply to the entire site.

NYSDEC acknowledges that the SDA is not included in either the NRC's role as licensing agency for the former fuel reprocessing facility nor the regulatory mandate given to the NRC by the Act to develop site decommissioning criteria. Regulatory authority for the SDA currently rests with the State of New York. However, from the perspective of releases to the environment of radioactive and non-radioactive contaminants, the WNYNSC is one site. Division of the WNYNSC along lines of regulatory responsibility is not the best option because releases of residual material from the various areas of the site have the potential to follow the same environmental exposure pathways. Any decommissioning and closure criteria expressed in terms of a potential radiation dose (such as the NRC's decommissioning rule) must take into account the combined impacts from all sources on the site

This approach would be consistent with the definition of "residual radioactivity" in the NRC's decommissioning rule; i.e., "residual radioactivity . . . includes radioactivity from all licensed and unlicensed sources used by the licensee" [10 CFR 20.1003]. Therefore, the decommissioning criteria established for the site must take into account all potential releases, not just those from one area of regulatory jurisdiction. The NRC should clarify this point as soon as possible, preferably before DOE and NYSEDA progress much further toward developing their preferred alternative. The Cooperation Agreement proposed in comment 2 would be an appropriate vehicle for establishing such site-wide criteria.

4. The criteria NRC adopts for the West Valley Demonstration Project should apply to NYSERDA once the Demonstration Project is completed.

The Commission Paper does not make it explicitly clear that the decommissioning criteria that are finally adopted will continue to apply after DOE has met their obligations under the WVDPA. Since the NRC has been tasked by Congress under the Act with developing these criteria for the Demonstration Project, any such criteria could be construed to be applicable for only the Demonstration Project. NRC should be very clear on the scope of applicability of any criteria they develop.

NYSDEC expects that any decommissioning criteria developed for the site under the mandate of the WVPDA would be the same as for the post-WVDPA site. Not only should NRC and NYSDEC agree that the decommissioning criteria apply to the site as a whole, but these criteria should also apply throughout the whole time frame of the site decommissioning process.

5. NYSDEC's *Cleanup Guideline for Soils Contaminated with Radioactive Materials* is an ARAR.

As an Agreement State agency, NYSDEC will adopt regulations compatible with NRC's Decommissioning Rule within the allotted three-year time frame. Until that rulemaking is completed, our Technical Administrative Guidance Memorandum-4003, "Cleanup Guideline for Soils Contaminated with Radioactive Materials" (TAGM-4003), is our current applicable, relevant and appropriate regulation (ARAR) for release of areas of soil contamination under the West Valley decommissioning process (our TAGM-4003 is compatible, albeit more restrictive than NRC's Decommissioning Rule). Therefore, any areas of the site that are designated for free-release during this process would be subject to TAGM-4003 (copy attached).

6. The NRC should prescribe the criteria before the Record of Decision is issued.

NYSDEC can find no adequate justification in SECY-98-251 for delaying prescribing criteria for clean up of the WNYNSC until after the Record of Decision (ROD) has been signed. This is not explained by the need for the flexibility built into the recommendations, which allow DOE and NYSERDA to propose alternative limits if they cannot meet the proposed limits taken from the NRC's Decommissioning Rule. The normal process is for a regulatory agency to determine the appropriate existing limits, or create appropriate site-specific values, prior to reaching a Record of Decision on the appropriate site cleanup approach. Instead, NRC staff have proposed that DOE, NYSERDA, and NRC reach a Record of Decision without any formal criteria against which a decision can be made.

On page five of the Commission Paper it states,

"The EIS will evaluate the potential impacts of various decommissioning alternatives, and is expected to support NRC's selection and prescription of decommissioning criteria for WVDP completion and site closure. NRC staff plans to rely on the results of the EIS to recommend for Commission consideration final decommissioning criteria for West Valley

If DOE/ NYSERDA depart from any of the proposed criteria described in this paper to complete the EIS, the EIS will need to show some justification”

NYSDEC is concerned with the circular logic of this passage. It is not clear how the EIS can support the NRC's criteria if the NRC will not prescribe them until after the preferred alternative is chosen and the ROD is in place.

NYSDEC strongly recommends that SECY-98-251 be modified to change the sequence of events in the “Proposed Process for Establishing Decommissioning Criteria” by having the Commissioners approve site decommissioning criteria after selection of the preferred alternative and before the ROD.

7. NRC should provide specific guidance on justifying alternative criteria for the West Valley site.

It is apparent on page five of the paper that NRC staff expects there will be some areas on the site where DOE and NYSERDA cannot meet the proposed criteria under any of the alternatives that have been presented in the DEIS, except for complete removal of all material from the site. NYSDEC agrees with this assessment. If a prudent review of the decommissioning and disposal options convinces DOE and NYSERDA that they cannot realistically meet the criteria, they would then have to present in the EIS strong justification for proposing any site cleanup and closure alternative that does not meet those criteria. A guidance which DOE and NYSERDA can follow when attempting to justify an alternative criterion needs to be developed. The rationale for implementation needs to be concise in terms of an acceptable balance between reduction of risk versus cost associated with all aspects of removal of the “hazard” from the site, the hazards to the environment, the public, and site employees; and costs to the State and Federal Governments. Risks including, but not limited to, risks expected during normal operation of a long-term site maintenance program, radiation exposures and other risks posed by excavation and recovery operations, transportation and site restoration during the ultimate removal and cleanup, must all be taken into account when calculating any risk/benefit balance developed under any proposed alternative.

NRC staff appear to have taken this same position, but without first setting out clear guidelines for DOE and NYSERDA to follow when proposing such an alternative. Such guidelines are necessary in order to ensure adequate protection of the environment and the residents of our State. NYSDEC believes that it is imperative that such guidelines be set and is willing to work with NRC staff to develop them

8. NRC should explain the three long-term management alternatives.

NRC staff have identified three regulatory alternatives for long-term site management if DOE and NYSERDA can demonstrate that such long-term control is necessary. We have the following comments about the regulatory alternatives identified by NRC staff for potential long-term institutional control of the site:

- 1) Issuance of a long-term NRC license (potentially for > than 100 years) until such time

as the hazard is removed from the site. - It is unclear from the paper how NRC envisions this option would be implemented. NRC staff should include a discussion of the possible circumstances under which such a long-term license would be appropriate.

2) Seeking new legislative authority. - NRC has not made it clear why they would need further legislative authority to approve a long-term institutional control alternative proposed by DOE and NYSERDA. NRC staff should elaborate on the need for such expanded authority.

3) Transferring the regulation of the decommissioning process to the United States Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). - We have verified with EPA that this would be a viable alternative. However, we also agree with NRC staff that this is the least acceptable of the listed options. The radioactive materials licensing at this site was performed by the NRC and the State of New York. As the licensing authorities, we are the appropriate entities for regulating the decommissioning and closure of the site. However, since NRC has raised this possible option, NYSDEC requests that the Commission Paper be revised to clarify the circumstances under which NRC believes they may need to relinquish authority over the site to the EPA.

9. Any new radioactive waste disposal units must comply with current regulations.

Under the alternatives listed in the DEIS, there is the potential for the creation of new waste disposal cells on the site. If an option is accepted that includes such a cell, NYSDEC expects that its design and construction will be carried out in such a manner as to meet the substantive requirements of 6 NYCRR Part 382 and Part 383.

10. NRC must apply 10 CFR 61.55 and DOE must take responsibility for GTCC waste.

If any Greater Than Class C (GTCC) waste is to remain on the WNYNSC, NYSDEC expects that as the responsible authority, the DOE will maintain a presence at the site until such time as the waste is removed or the potential doses to the public reach the point at which no further controls on access or use of the site are needed.

Under the federal Low-level Waste Policy Act, states are only responsible for disposal of commercially generated Class A, B, and C low-level radioactive waste. Furthermore, 10 CFR Part 61 (§ 61.55(a)(2)(iv), effective on June 26, 1989) states,

“Waste that is not generally acceptable for near-surface disposal is waste for which form and disposal methods must be different, and in general more stringent, than those for Class C waste. In the absence of specific requirements in this part, such waste must be disposed of in a geologic repository as defined in Part 60 of this chapter unless proposals for disposal of such waste in a disposal site licensed pursuant to this part are approved by the Commission.”

Seneca Nation of Indians

President - Duane J. Ray
Clerk - Norma Kennedy

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January 11, 1999

Commissioners
Nuclear Regulatory Commission
Washington DC 20555-0001

SUBJECT: SECY-98-251; (proposed) Decommissioning Criteria for West Valley

Dear Sirs and Madams:

We have completed our review of document SECY-98-251 and respectfully submit the following comments and concerns in lieu of presenting the material at the public briefing scheduled for January 12 in Washington DC.

The West Valley Nuclear Services Center (WVNSC) is on the aboriginal land of the Seneca People. Seneca Territory once encompassed all of western New York, as well as parts of Ohio and Pennsylvania. Now only three small territories remain in our possession. The Cattaraugus territory of the Seneca Nation of Indians is approximately 25 miles downstream of the West Valley site. This land was pristine before the WVNSC was established; however, the site has since become contaminated with radioactive substances having half lives of thousands of years. Failure of the West Valley site integrity will result in the exposure of our people to potentially high doses of radioactive substances if wastes remain at the site. We cannot afford any compromise of our remaining lands due to contamination from the West Valley site.

Specifically, we are concerned with the flexibility the Nuclear Regulatory Commission (NRC) is affording the Department of Energy (DOE) in the decommissioning process. It appears that the NRC staff is allowing the DOE to propose its own decommissioning criteria, which the NRC staff will then recommend for approval by the Commission. We fear the selection of decommissioning criteria will be based on cost effectiveness rather than public health, safety, and environmental protection.

Indians is approximately 25 miles downstream of the West Valley site. This land was pristine before the WVNSC was established; however, the site has since become contaminated with radioactive substances having half lives of thousands of years. Failure of the West Valley site integrity will result in the exposure of our people to potentially high doses of radioactive substances if wastes remain



New York State Energy Research and Development Authority

William R. Howell, Chairman

F. William Valentino, President

West Valley Site Management, 10282 Rock Springs Road, P.O. Box 191, West Valley, NY 14171-0191
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January 4, 1999

The Honorable Dr. Shirley Jackson
Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Chairman Jackson:

The New York State Energy Research and Development Authority (NYSERDA) thanks the Nuclear Regulatory Commission (Commission) for acknowledging our request to allow NYSERDA and other interested parties to provide input on the staff paper on Decommissioning Criteria for West Valley (SECY-98-251) prior to your decision. In general, NYSERDA believes that the paper sets forth a workable path forward to setting final decommissioning criteria for the West Valley Demonstration Project (WVDP) and the licensed facilities at West Valley. However, NYSERDA has significant concerns regarding a few aspects of the paper. Our concerns are presented below

Single Set of Criteria

As the Commission is aware, NYSERDA has long sought to insure that any criteria set for West Valley will cover all facilities at the Center and address equally the responsibilities of the Department of Energy (DOE) under the WVDP Act and those of NYSERDA under its Part 50 license. (See *e.g.*, Paul Piciulo's August 14, 1996 letter to Carl Paperiello and Mr. Paperiello's September 20, 1996 response [copies attached].)

The facilities and premises that DOE is required to decontaminate and decommission under the WVDP Act constitute most of the facilities and premises covered under NYSERDA's license. NYSERDA strongly believes that whatever criteria are set for any such facilities should be precisely the same for DOE (under the Act) and NYSERDA (under the license). We believe that footnote 1 on page 2 of the staff paper is intended to address this concern and appreciate staff's effort to deal with this important issue. We assume that the adjudication or rulemaking proposed on page 3 of the paper to set the final criteria will make it clear that the same criteria apply to both activities.

We have some concerns also with the treatment of the State-licensed Disposal Area (SDA) in the paper. While we understand that the Commission cannot set criteria for this State-licensed facility, we believe that the criteria set for the site must include all facilities at the site. As staff points out on page 3 of the paper, the impacts from the SDA are considered in the site-wide environmental

Honorable Dr. Shirley Jackson

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January 4, 1999

impact statement (EIS). NYSERDA believes that the Commission's exercise of its regulatory responsibilities must similarly be coordinated with the New York State Department of Environmental Conservation's (DEC) exercise of its regulatory responsibilities so that the criteria ultimately work together to deal with the entire site. We urge the Commission to work more closely with DEC to accomplish this goal.

Application of the License Termination Rule

NYSERDA agrees in principle with staff's proposal to apply the criteria contained in NRC's License Termination Rule to the facilities at West Valley. We believe that the criteria contained in that rule, which were developed after an extensive participatory process, are well designed to protect public health and safety and the environment.¹ However, at a meeting of our Citizen Task Force on November 17, certain language in the staff paper dealing with "alternative criteria" became a focus of concern. The language appears on page 5 of the staff paper, in the first full paragraph. There, it states that:

If DOE/NYSERDA depart from any of the proposed criteria described in this paper to complete the EIS, the EIS will need to show some justification such as that adherence to the proposed criteria would cause more human or environmental harm than good or be prohibitively expensive/technically infeasible, and that any alternative criteria chosen demonstrate a sufficient level of protection of human health and safety and the environment, reflect a reasonable balance of costs and benefits, and represent a viable approach.²

Members of the Citizen Task Force were extremely concerned about the implications of this language and expressed consternation in the belief that standards less protective than those contained in the License Termination Rule might be applied to facilities at West Valley. NYSERDA sympathizes with the concerns expressed by Citizen Task Force members at that meeting. We note, however, that the License Termination Rule itself contains a provision allowing for the prescription of alternate criteria under certain circumstances (10 CFR § 20.1404). NYSERDA believes that it

¹ It is our position that DOE must meet criteria for unrestricted release for all WVDP facilities and premises in order to leave the site. If DOE believes it is appropriate to meet criteria for restricted release for some facilities or premises, NYSERDA maintains that DOE must make the required showing, remain at the site, and provide the required institutional controls. If maintaining institutional controls is required in order to decommission WVDP facilities and premises, then maintaining those controls is part of DOE's obligation to decommission those facilities and premises under the WVDP Act.

² See also page 3 of the staff paper: "If the DOE/NYSERDA preferred alternative does not conform to the proposed decommissioning criteria, or if DOE/NYSERDA propose alternative criteria, then the staff will recommend an approach for approval by the Commission."



New York State Energy Research and Development Authority

William R. Howell, *Chairman*

F. William Valentino, *President*

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January 6, 1999

Mr. William Hill, Technical Assistant
Office of the Secretary of the Commission
Mailstop O-16C1
Washington, D.C. 20555

Dear Mr. Hill:

SUBJECT: Supplement to NYSERDA's Comment Package on SECY-98-251

The New York State Energy Research and Development Authority recently submitted comments on the staff paper on Decommissioning Criteria for West Valley (SECY-98-251). Our January 4, 1999 comment package included three attachments. Unfortunately, the last three pages (i.e., pages 10, 11, and 12) of the third attachment, "Waste Management Area 3 -- HLW Storage Area & Vitrification Facility Issues and Options for Resolution," were inadvertently excluded from the package. Twenty copies of this package, which were also missing these three pages, were among materials sent to you for the January 12, 1999 NRC Commission Meeting. The missing three pages, which were faxed to you earlier today, are attached to this letter and should be added to the end of our January 4, 1999 letter to Chairman Jackson. Thank you for helping to correct this omission and please accept my apologies for any inconvenience this may have caused.

Sincerely

WEST VALLEY SITE MANAGEMENT PROGRAM

Paul L. Piciulo, Ph.D.
Program Director

PLP/ams

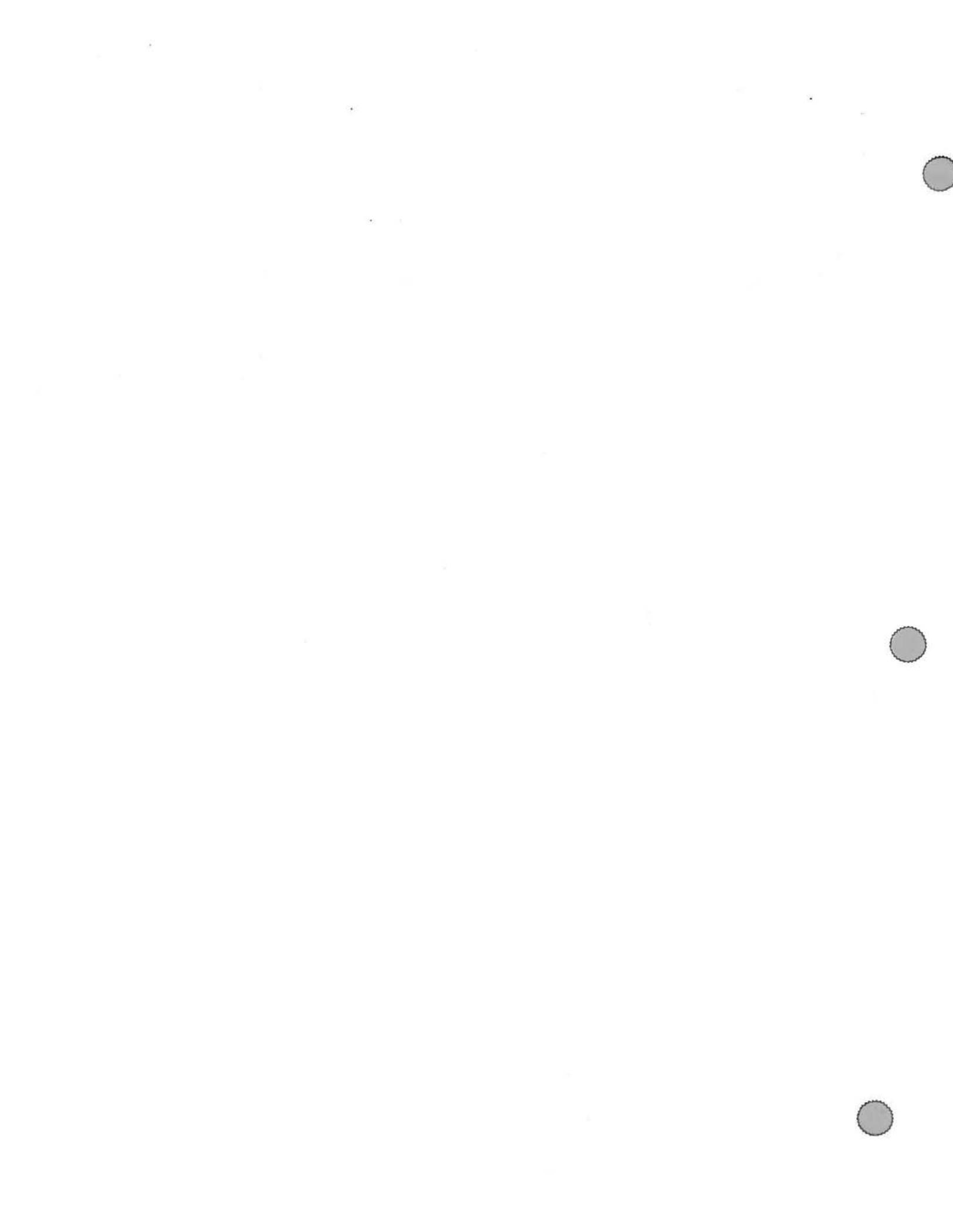
Attachment: Pages 10, 11, and 12 of "Waste Management Area 3 -- HLW Storage Area & Vitrification Facility Issues and Options for Resolution."

References:

1. Letter, Paul L. Piciulo to the Honorable Dr Shirley Jackson, dated January 4, 1999
2. Letter, Paul L. Piciulo to Mr. William Hill, *NYSERDA Materials for the Commission Meeting on Decommissioning Criteria for West Valley*, dated January 4, 1999.

cc: Barbara Mazurowski, U.S. DOE (w/att)
Paul J. Merges, NYSDEC (w/att.)
Melinda Holland, CTF (w/att.)
Duane J. Ray, Seneca Nation (w/att)

PLP/98AMS004.clg





Department of Energy

**Ohio Field Office
P.O. Box 3020
Miamisburg, Ohio 45343-3020**

December 31, 1998

**Dr. Shirley A. Jackson, Chairman
U S. Nuclear Regulatory Commission
Washington, DC 20555**

OH-0271-99

Dear Dr. Jackson:

After reviewing SECY-98-251, U. S. Nuclear Regulatory Commission (NRC) Staff Proposal - Decommissioning Criteria for West Valley, DOE believes that NRC's proposed process and decommissioning criteria provide a reasonable framework for moving forward on completion of the West Valley Demonstration Project in a manner which is both protective of public health, safety, and the environment, as well as consistent with NRC's License Termination Rule. DOE, in cooperation with the New York State Energy Research and Development Authority (NYSERDA), has made significant strides in processing the high-level waste (HLW) at the site into a durable solid glass. We are now focused on selecting a preferred alternative for Project completion and long-term site management that incorporates stakeholder input and is protective of worker and public health and safety, and the environment.

The process and decommissioning criteria proposed by NRC in SECY-98-251 are consistent with DOE's responsibilities as set forth in the West Valley Demonstration Project (WVDP) Act of 1980. They are also consistent with the roles, responsibilities, and overall sequence of activities as defined in DOE's Cooperative Agreement with New York State and DOE's Memorandum of Understanding with the NRC.

The proposed criteria support DOE's objectives for the preferred alternative, which include reducing the Project footprint. In analyzing the various alternatives under the proposed D&D criteria, we will pay particular attention to technology readiness and the balance of benefits, risks, and costs associated with implementing each of the alternatives. We will evaluate the doses to workers and to the off-site population that will result from the alternatives, against the potential dose consequences if site institutional controls fail. DOE believes this type of an analysis is critical in selecting a path forward.

DOE acknowledges that there are certain regulatory issues that will need to be further explored, and some potential alternatives for resolution of these issues were identified by the NRC staff in SECY-98-251. For facilities where the license termination rule cannot be feasibly satisfied, DOE supports the use of an on-going NRC license as the basis for providing long-term institutional controls.



Dr. Shirley A. Jackson

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December 31, 1998

In addition to endorsing the availability of long-term institutional controls, DOE supports the application of Incidental Waste Criteria. Although we believe that these criteria should be applied consistently among sites that managed HLW, the criteria should also be flexible to allow the characteristics unique to each HLW site or facility to be factored into the Incidental Waste determination. For this reason, DOE believes the performance-based approach provided in 10 CFR 61.58 is the most appropriate method for West Valley to make incidental waste determinations for HLW facility closures.

DOE is committed to developing a preferred alternative that protects worker and public health and safety, and the environment, takes into account the West Valley Citizen Task Force and other stakeholder recommendations; and meets NRC's criteria. DOE will support the continuing involvement and guidance provided by the NRC in moving forward through this process toward WVDP completion.

Sincerely,



G Leah Dever,
Manager

cc

M W Frei, EM-34, 323/TREV
J A Turi, EM-36, 1089/CLOV
M E Rawlings, EM-32, 1188/CLOV
B A Mazurowski, OH/WVDP, WV-37



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20545-0001

September 20, 1996



Dr. Paul L. Picciolo, Program Director
West Valley Site Management Program
New York State Energy Research
and Development Authority
P.O. Box 191
West Valley, New York 14171-0191

SUBJECT: DECONTAMINATION AND DECOMMISSIONING CRITERIA FOR THE WESTERN NEW YORK NUCLEAR SERVICE CENTER

Dear Dr. Picciolo:

I am responding to your letter to me dated August 14, 1996. In your letter, you request the U.S. Nuclear Regulatory Commission's guidance with regard to processes that could be followed to set a single set of decontamination and decommissioning (D&D) criteria for the West Valley Demonstration Project (WVDP) and the Part 50 licensed facilities at the Western New York Nuclear Service Center (Center). Your letter also requests NRC staff participation in a Citizen Task Force (CTF) that will discuss issues associated with completion of the WVDP and closure or long-term management of the facilities at the Center.

NRC is aware of the New York State Energy Research and Development Authority's (NYSERDA's) concerns that a single set of D&D criteria be established for both WVDP and the Center. NRC's normal practice is to require remediation of the site to established unrestricted release levels; however, in certain instances, the licensee may elect to present alternative criteria to NRC, usually in the form of a decommissioning plan. The licensee's presentation should clearly state the alternative criteria requested and include a detailed performance assessment of the potential impacts to the health and safety of the public and environment during both remediation and long-term care scenarios. The NRC staff will review this submittal and issue an environmental impact statement (EIS), in accordance with 10 CFR Part 51 and with proper public participation, before setting final D&D criteria and proposed decommissioning actions for the site in question.

Because of the unique situation established by Public Law 96-368 (WVDP Act), the U.S. Department of Energy (DOE) is required to decontaminate and decommission certain aspects covered by the Center's Part 50 license "in accordance with such requirements as the Commission may prescribe." The addition of this third party may require that alternative methods be considered to set D&D criteria. Because of the timing of your and DOE's joint draft EIS discussing closure alternatives for the WVDP and Center, we agree with your suggestion that NRC staff meet with appropriate NYSERDA and DOE representatives to formulate a coordinated process for establishing alternative D&D criteria. Please contact Mr. Gary Comfort (301-415-8106) of my staff to organize this meeting.

Dr. Paul L. Picuolo

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As part of the effort to establish alternative criteria for the Center and the WVDP, NRC is willing to participate with the CTF. However, the availability of NRC staff participation will depend upon the schedules determined for CTF meetings. Again, please contact Mr. Comfort to make appropriate arrangements.

Sincerely,



Carl J. Paperiello, Director
Office of Nuclear Material Safety
and Safeguards

cc: Mr. Thomas J. Rowland, Director
West Valley Demonstration Project
U.S. Department of Energy
P.O. Box 191
West Valley, New York 14171



F. WILLIAM VALENTINO
President

(716) 942-4387 Fax: (716) 942-2148
West Valley Office, P.O. Box 191 · West Valley, New York 14171-0191

August 14, 1996

Mr. Carl J. Paperiello, Director
Office of Nuclear Material Safety and Safeguards
Nuclear Regulatory Commission
Washington, D.C. 20655

Dear Mr. Paperiello:

SUBJECT: Decontamination and Decommissioning Criteria for the Western New York Nuclear Service Center (Center) and NRC Staff Cooperation with the Citizen Task Force (CTF) for the Site

The New York State Energy Research and Development Authority (NYSERDA) is writing to request NRC's guidance with regard to processes that could be followed to set a single set of decontamination and decommissioning criteria for the West Valley Demonstration Project (WVDP) and the Part 50 licensed facilities at the Center. NYSERDA is also requesting NRC's staff support for a CTF that is being formed to discuss issues associated with the completion of the WVDP and closure or long-term management of the facilities at the Center.

NYSERDA holds title to the Center on behalf of the state of New York. The Center was formerly the site of a commercial spent nuclear fuel reprocessing facility; and is now the site of the WVDP, a joint federal and state cleanup effort operated by the United States Department of Energy (DOE). NYSERDA is also the licensee under an NRC Part 50 license for the facilities at the Center (License No. CSF-1), which is currently being held in abeyance during the term of the WVDP.

DOE and NYSERDA recently released a *Draft Environmental Impact Statement for Completion of the WVDP and Closure or Long-Term Management of the Facilities at the Center (DEIS)*. NRC is participating in the DEIS process as a cooperating agency for the purpose of setting decontamination and decommissioning criteria for the WVDP. We understand that DOE staff are preparing a letter to NRC that will propose a plan for setting WVDP decontamination and decommissioning criteria. In previous discussions with NRC staff, NYSERDA has made the point that it is essential, both from a technical and from a legal standpoint, that a single, coordinated set of criteria be developed that will cover the entire Center. NYSERDA understands the complexities of attempting to develop a single set of criteria for a site that is not only governed by both the WVDP Act and a Part 50 license, but which also includes a State-licensed, Low-Level, Radioactive Waste Disposal Area regulated by the New York State Department of Environmental Conservation (NYSDEC), under NRC's Agreement States Program. However, NYSERDA firmly believes that if these efforts are not fully integrated, any criteria that are fashioned for the Center will fail to address legitimate technical concerns, and will ultimately succumb to legal challenges. NYSERDA requests NRC's guidance on establishing a procedure that will meet all regulatory requirements and allow NRC to set criteria for the Part 50 license simultaneously with the criteria for the WVDP. NYSERDA would like to meet with appropriate NRC representatives, together with representatives of DOE and NYSDEC, as soon as possible to formulate a coordinated process.

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Mr. Carl Paperiello
Page 2
August 14, 1996

As NYSERDA staff have previously informed NRC staff, NYSERDA will be establishing a CTF, with DOE's cooperation, to provide recommendations to the agencies on issues that could impact the completion of the WVDP and closure or long-term management of the facilities at the Center. We believe that NRC's willingness to provide staff support to answer questions that CTF members may have about technical concerns, regulatory issues, or other matters, within NRC's regulatory authority and expertise, will be extremely important to its success as the CTF is likely to have many questions about the regulatory requirements and procedures that would be necessary to implement any of the closure or management alternatives analyzed in the DEIS. We trust that NRC staff will participate in this effort to provide an opportunity for greater meaningful public participation in the deliberations concerning the future of West Valley.

NYSERDA and DOE hope to have the CTF up and running some time during the month of October. It would be extremely helpful if we could meet with appropriate NRC representatives as soon as possible so that we could attempt to formulate a process to arrive at a coordinated set of decontamination and decommissioning criteria for the site in time to present this process to the CTF early on in its deliberations.

I would appreciate it if an appropriate representative from NRC staff would contact me regarding NRC staff cooperation with the CTF and potential dates for a meeting to discuss the process of developing a coordinated set of criteria for the Center and the WVDP.

Thank you for your consideration and your prompt attention to this matter.

Sincerely,

WEST VALLEY SITE MANAGEMENT PROGRAM

TL Picciolo Jr
Paul L. Picciolo, Ph.D.
Program Director

PLP/amw

cc: T. J. Rowland (DOE)
H. J. Miller (NRC)
G. C. Comfort (NRC)
P. J. Merges (NYSDEC)

Honorable Dr. Shirley Jackson

Page 3

January 4, 1999

might be helpful if the Commission provided some further guidance concerning the circumstances and procedure under which alternate criteria might be provided for facilities at West Valley.³

The staff paper appropriately raises some real concerns about the feasibility of exhuming and shipping off site large quantities of radioactive waste. Analyses have suggested that the expense and impacts of such activities for some of the site facilities (particularly the disposal areas) may not be justified by human health or environmental benefits. NYSERDA appreciates NRC's recognition of this reality. Regulatory alternatives for continued control, such as those outlined in the staff paper, must be considered seriously for at least some of the site facilities. Such continued control of licensed facilities is contemplated in and consistent with NRC's License Termination Rule. (See 62 Fed. Reg. 39067.) Clearly, one possibility that may arise from decisionmaking under the EIS is that some facilities may have to remain under license for an extended period. However, any adjudication or rulemaking approving such treatment with respect to any facilities at West Valley should make it clear that those facilities have not been decommissioned.

Application of the Incidental Waste Criteria to Closure of the HLW Tanks

The staff paper proposes that the incidental waste criteria described in the March 2, 1993 letter from R. Bernero to J. Lytle be applied as decommissioning criteria at West Valley for any on-site disposal of liquid supernate waste removed from the HLW tanks and solidified or any material remaining in the HLW tanks after closure. One of the alternatives that DOE is evaluating for completion of the WVDP would include closing the HLW tanks in place. While NYSERDA has no objection to the incidental waste criteria in principle, we have serious concerns with the potential application of those criteria at West Valley, especially to the closure of the HLW tanks.

It is important to note that incidental waste criteria have only been applied to the activities of DOE -- at Savannah River, Hanford, and now at West Valley. In this regard, West Valley is unique. While DOE is the owner of the Savannah River and Hanford sites and plans to be present at those sites indefinitely to provide any needed site control, the same is not the case at West Valley. NYSERDA owns the West Valley site on behalf of New York State and DOE has indicated that it plans to complete its activities at West Valley as soon as possible, perhaps by 2006. (See *Accelerating Cleanup: Paths to Closure Site Narrative*, DOE Ohio Field Office, June, 1998.)

As described in the staff paper, the incidental waste criteria require, among other things, that the waste be managed so that safety requirements comparable to the performance objectives set out in 10 CFR Part 61 are satisfied. In the Draft Environmental Impact Statement for Completion of the West Valley Demonstration Project and Closure or Long-Term Management of Facilities at the Western New York Nuclear Service Center (DEIS), Alternative III evaluated closing the HLW tanks

³ Reference to and incorporation of the guidance provided in Section 4.4 of Draft Reg Guide DG-4006 might be sufficient for this purpose.

Honorable Dr. Shirley Jackson

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in place by back-filling them with cement. The performance assessment of this alternative showed that an off-site individual on Cattaraugus Creek would receive a dose from the HLW tanks of 71.9 millirem for the peak year assuming institutional control is maintained. If institutional control were lost, an intruder would receive a dose of 89,000,000 millirem, assuming an agriculture/residential scenario. To address this obviously unsatisfactory performance, DOE has re-engineered the closure of the HLW tanks by designing multiple engineered barriers. These new engineered barriers have resulted in a drastic reduction in the projected doses. New performance assessments performed by DOE's EIS contractor indicate that the dose to the off-site individual on Cattaraugus Creek would be 0.0017 millirem which represents a reduction by a factor of 40,000. The intruder dose is projected to be 40 millirem, representing a reduction by a factor of 2,225,000. NYSERDA urges NRC to take a hard look at the engineering designs and the performance assessments for this facility to see whether NRC concurs with the reasonableness of the results.

Moreover, the drastic reduction in the projected doses between the DEIS and the new performance assessment shows that, even if the projections are reasonable, DOE is relying on engineered barriers to achieve compliance with performance objectives over a period of thousands of years. The Nuclear Waste Policy Act of 1982 makes it clear that if the tank waste were to remain HLW, the federal government would be responsible for providing for the permanent disposal of that waste in a federal repository. NYSERDA believes strongly that if the reclassification of the tank waste from HLW to non-HLW is to be based on a multi-thousand year performance assessment conducted by DOE of engineered barriers installed by DOE, then DOE should be the guarantor of the performance of those engineered barriers, not NYSERDA. For this reason, if NRC believes that DOE's performance assessment is reasonable, NRC should condition any application of the incidental waste criteria at West Valley on DOE's remaining at the site and providing any necessary monitoring and maintenance of the closed HLW tanks. This would be consistent with the application of the incidental waste criteria at Savannah River and Hanford where DOE will have a continuing presence

A separate requirement of the incidental waste criteria as described in the staff paper is that the waste "be incorporated in a solid physical form at a concentration that does not exceed the applicable concentration limits for Class C low-level waste as set out in 10 CFR Part 61." NYSERDA understands that DOE plans to meet this requirement not by meeting the requirements for Class C waste in the tables in 10 CFR §61.55, but by seeking approval from the Commission under 10 CFR §61.58. (See the DOE issue paper entitled *HLW Storage Area/Vitrification Facility, Issues and Options for Resolution*, July, 1997 [copy attached].) This latter section allows the Commission to "authorize other provisions for the classification and characteristics of waste on a specific basis, if, after evaluation of the specific characteristics of the waste, disposal site, and method of disposal, it finds reasonable assurance of compliance with the performance objectives in Subpart C of this part." NYSERDA does not believe that resort to §61.58 is appropriate to meet the incidental waste criteria. The concentration limits for Class C low-level waste set out in 10 CFR Part 61 are those contained in §61.55. The provisions of §61.58 essentially authorize the Commission to allow a variance under certain circumstances if the concentration limits can not be met. Moreover, DOE is proposing to meet two separate requirements of the incidental waste criteria (meeting

Honorable Dr. Shirley Jackson

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performance objectives and not exceeding Class C concentration limits) by making only one showing — namely that the performance objectives will be met. This would effectively eliminate one requirement of the incidental waste criteria by folding it into another. If this had been the Commission's intention, the concentration limit requirement would have been unnecessary.⁴

NYSERDA requests that the Commission direct NRC staff to assure that the above concerns are sufficiently addressed before any decisions regarding decommissioning criteria for West Valley are made final.

NYSERDA looks forward to presenting these concerns to and discussing the proposed criteria with the Commission at the January 12, 1999 meeting.

Sincerely,

WEST VALLEY SITE MANAGEMENT PROGRAM

Paul L. Piciulo for

Paul L. Piciulo, Ph.D.

Program Director

PLP/ams

⁴ Even if the Commission allows DOE to meet the incidental waste criteria requirement by satisfying §61.58 rather than §61.55, the Commission should be aware that if the waste exceeds the concentrations in the tables in §61.55, disposal of the waste is a federal responsibility under §3(b)(1) of the Low Level Radioactive Waste Policy Amendments Act of 1985.



WASTE MANAGEMENT AREA 3 - HLW STORAGE AREA & VITRIFICATION FACILITY

**HLW Storage Area/Vitrification Facility
Issues and Options for Resolution**

ALTERNATIVE I

3.1.1 DEIS Alternative Description

Under DEIS Alternative I, the HLW storage tanks and associated structures and systems would be deconned as necessary, disassembled, packaged, and removed from site for disposal. Those portions of the tanks and systems directly associated with HLW storage would be deconned and exhumed remotely, while structures and systems not directly in contact with waste and with little or no contamination would be removed conventionally and, if uncontaminated, sent directly offsite for disposal in a construction landfill. Sludge removed from the tanks as a result of decon activities would be considered HLW and "solidified and containerized for offsite disposal." This waste management area also includes the vitrification facility, whose system, components, and structure would be deconned as necessary, disassembled, packaged, and removed from site for disposal.

3.1.2 Issues with HLW Storage Area/Vitrification Facility Alternative I Description

There are two primary issues associated with Alternative I implementation for the HLW storage area/vitrification facility; involving the DEIS waste classification assumptions and resolution of the definition of transuranic waste. These are described in a combined discussion below.

1. Classification and disposition of residual waste -- Following the completion of vitrification, there will likely be some residual high activity waste remaining in the HLW storage tanks and key vitrification process vessels. In an Alternative I scenario, this waste would be addressed during tank exhumation and vitrification cell decontamination activities. The DEIS classifies this waste as HLW and states that it would be "solidified and containerized for off-site disposal." However, how this solidification would be accomplished is not addressed. It is certain, however, that the current vitrification melter would not be available to process these wastes, although vitrification is the only acceptable treatment at this time for wastes classified as high level.

As this description illustrates, the regulatory discussions in the DEIS do not recognize the existence of a process for cleaning up HLW facilities to the point where the residual waste can be classified as incidental (non-HLW). Consequently, the analysis of the residual waste streams in the DEIS, while made conservatively in strict accordance with codified requirements, is not accurate in terms of potential alternatives for residual waste classification and disposition.

Although the WVDP intends to remove residual high activity waste to the extent that is technically and economically feasible, there is the likelihood that most of the residual waste would contain transuranic elements in concentrations in excess of 10 nCi/g, which, based on the definitions in the WVDP Act and requirements in the Stipulation of Compromise, would require a determination by the NRC as to whether this waste would be considered transuranic waste or low-level waste (LLW).

WASTE MANAGEMENT AREA 3 – HLW STORAGE AREA & VITRIFICATION FACILITY

3.1.3 Possible Responses to Issues

Possible responses to the issues discussed above are outlined below.

1. Classification and disposition of residual waste – Guidance on the extent of waste removal necessary to support classification of residual wastes as incidental is provided in the NRC's denial of the petition for rulemaking submitted by the States of Washington and Oregon (58 FR 12342, March 4, 1993). In denying the petition, NRC concluded that the process and criteria for classifying radioactive waste materials as HLW or non-HLW are well established and can be applied on a case-by-case basis without revision to the regulations. As discussed in 58 FR 12342, the following three criteria need to be applied on a case-by-case basis in order to consider waste as incidental:

- Compliance with 10 CFR Part 61 Performance Objectives - The wastes are managed, pursuant to the Atomic Energy Act, so that safety requirements comparable to the performance objectives set out in 10 CFR Part 61 are satisfied.
- Waste Classification - The wastes will be incorporated in a solid physical form at a concentration that does not exceed the applicable limits for Class C low-level waste as set out in 10 CFR Part 61.
- Assessment of Technical and Economic Feasibility - The wastes have been processed to remove key radionuclides to the maximum extent that is technically and economically practical.

In order to satisfy the requirements of the WVDP Act (solidify the HLW), DOE intends to remove and process HLW to the extent necessary to meet the aforementioned incidental waste criteria. Although the specifics of the Hanford HLW separations case differ from the West Valley HLW retrieval case, the basic intent is the same in both instances; process the HLW so that the majority of the radioactivity and the primary hazard is retained for vitrification. The following sections discuss how the aforementioned three conditions can be applied to determine the level of waste removal necessary to consider the HLW tanks and Vitrification Facility residuals as incidental waste.

A. Compliance with 10 CFR Part 61 Performance Objectives

The intent of this condition is to provide reasonable assurance that the performance objectives delineated in Subpart C of 10 CFR 61 can be met. Subpart C contains the following four performance objectives:

- §61.41 - Protection of the general population from releases of radioactivity
- §61.42 - Protection of individuals from inadvertent intrusion
- §61.43 - Protection of individuals during operations
- §61.44 - Stability of the disposal site after closure

These performance objectives were established to ensure that waste disposal under Part 61 would be conducted in a safe manner. All four performance objectives were relevant and applicable to Hanford in 58 FR 12342 because the underlying objective was bulk waste disposal. However, the purpose of applying these criteria at West Valley is to outline a process that can be used to define the extent of waste removal necessary from HLW management facilities so that the residual wastes

WASTE MANAGEMENT AREA 3 - HLW STORAGE AREA & VITRIFICATION FACILITY

can be considered incidental LLW. Consistent with this broader objective, a greater degree of attention will be paid to those performance objective aspects that define the appropriate level of waste removal rather than those aspects that focus on ancillary issues like disposal site suitability, which will likely be addressed as part of preferred alternative selection. Accordingly, it was determined that Parts 61.41 and 61.42 are more relevant than Parts 61.43 and 61.44. The basis for this conclusion is summarized below.

a. 10 CFR 61.41 - Protection of the general population from releases of radioactivity

Section 61.41 requires that concentrations of radioactive material which may be released to the general environment not result in an annual dose exceeding an equivalent of 25 millirems to the whole body. In addition, §61.41 requires that efforts be made to maintain releases of radioactivity in effluents to the general environment as low as reasonably achievable (ALARA). If this option were chosen as a preferred alternative, a performance assessment for the potential disposal site using the predicted West Valley final waste form would need to be conducted to ensure that this performance objective can be satisfied.

b. CFR 61.42 - Protection of individuals from inadvertent intrusion

Section 61.42 requires that the design, operation, and closure of a land disposal facility provide adequate protection to the inadvertent intruder after the period of active institutional controls. Consistent with §61.59, the period of active institutional controls is normally limited to 100 years. Section 61.42 does not contain any quantitative criteria on the degree of protection required for the inadvertent intruder after the period of institutional controls. Firm criteria on allowable exposure limits and the types of intruder scenarios that should be evaluated are contained in NRC guidance documents. NUREG-0782 and NUREG-0945 are the DEIS and FEIS for the Part 61 Rulemaking and contain the guidance for evaluating compliance with §61.42. The analysis supporting the Part 61 Rulemaking limited exposures to the inadvertent intruder to 500 mR/yr based on the evaluation of agricultural, home construction, and well drilling scenarios.

As discussed under Section 61.41 above, a disposal site performance assessment using West Valley's HLW tank and Vitrification Facility waste would be required to demonstrate compliance with this performance objective.

c. 10 CFR 61.43 - Protection of individuals during operations

Section 61.43 requires that the occupational doses to workers during closure operations and the period of institutional controls be kept ALARA. The radiation protection standards for demonstrating compliance with this performance objective are delineated in 10 CFR 20.

Given the operational nature of this ALARA performance objective and the engineering safeguards and administrative procedures that would be put in place to ensure compliance with §61.43, it is logical to assume that compliance with this performance objective can be demonstrated. In other words, meeting the dose objectives of Parts 61.41 and 61.42 will dictate what is an acceptable residual inventory in terms of meeting performance objectives. If Alternative I is part of the Record of Decision, then it will be appropriate for design and operations planning to go beyond the conceptual level and a more detailed assessment will be

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conducted to define the exact approach for ensuring compliance with this performance objective. Typically, an analysis with this level of detail is performed as part of the Decommissioning Plan.

d. 10 CFR 61.44 - Stability of the disposal site after closure

Section 61.44 requires that the disposal facility be sited, designed, and closed in a manner to achieve long-term stability and to the extent practical eliminate the need for ongoing maintenance. Most of the regulations that were promulgated to address this performance objective are contained in Subpart D (Technical Requirements for Land Disposal Facilities).

From a performance assessment standpoint, Part 61.44 requires that the site be modeled so that no ongoing maintenance or corrective actions are relied upon after the period of institutional controls. This modeling would be incorporated into the Performance Assessment for the potential waste disposal site, as discussed above.

B. Waste Classification

Part 61 provides two distinct methods for waste classification, the generic concentration-based limits listed in §61.55 and the alternative provisions approach delineated in §61.58. The outputs from both approaches can be used to determine the acceptability of wastes for near-surface disposal (Class C). In the case of Alternative I where waste would be disposed offsite at an operating waste disposal facility, it is concluded that it is more appropriate to submit an analysis under §61.55.

Waste Classification According to §61.55

Section 61.55 is based on the pathways analysis performed to support the Part 61 Rulemaking. The Part 61 analysis documented in NUREG-0782 and NUREG-0945 evaluated the disposal of commercial nuclear waste streams at a generic site. The pathways analysis conducted in support of the Part 61 Rulemaking identified the maximum concentrations of radionuclides that met the performance objectives in §61.41 and §61.42. The regulatory outputs of this pathways analysis are listed in Table 1 and Table 2 of §61.55. Table 1 lists the maximum allowable concentrations of significant long-lived radionuclides and Table 2 lists the maximum allowable concentrations of significant short-lived radionuclides. When considering wastes that are composed of both long-lived and short-lived radionuclides, the sum of the fractions method outlined in §61.55 should be used.

C. Assessment of Technical and Economic Feasibility

The preceding discussions identified the regulatory requirements associated with meeting the Part 61 Performance Objectives and Class C waste classification limits. These regulatory requirements can be viewed as a set of minimum expectations for waste removal. That is, if it is technically and economically feasible to remove more waste than is required to meet the performance objectives and Class C waste classification limits, then further waste retrieval should be pursued to the point of diminishing returns.

WASTE MANAGEMENT AREA 3 -- HLW STORAGE AREA & VITRIFICATION FACILITY

In the case of the HLW tanks, a graded approach to waste retrieval is planned for the period immediately following the primary vitrification campaign. The purpose of this additional effort is to remove HLW residuals from the tanks while the vitrification melter is still operational to the extent technically and economically feasible. The graded approach involves the use of increasingly aggressive waste removal techniques to remove waste to the point where increasingly diminished returns make continued efforts at waste removal no longer a viable option. The techniques currently being considered include, in relative order of application, modifications to the existing waste transfer and mobilization pumps, introduction of new transfer equipment, mechanical decon using a remote utility arm, and chemical flushing.

Assuming the disposal site performance assessment results indicate that the HLW tank and vitrification facility waste can be safely disposed at that site, the TRU waste definition for this West Valley waste will also have been demonstrated, for that portion of the waste that may exceed the 10 nCi/g transuranic limit. NRC concurrence with these performance assessment results and TRU conclusion will be requested to close the 10 vs. 100 nCi/g issue prior to waste disposal.

WASTE MANAGEMENT AREA 3 – HLW STORAGE AREA & VITRIFICATION FACILITY

ALTERNATIVE II

3.2.1 DEIS Alternative Description

Under Alternative II, the HLW storage tanks and associated structures and systems would be deconned as necessary, disassembled, packaged, and placed into the newly constructed Retrievable Storage Area. Those portions of the tanks and systems directly associated with HLW storage would be deconned and exhumed remotely, while structures and systems not directly in contact with waste and with little or no contamination would be removed conventionally and, if uncontaminated, sent directly offsite for disposal in a construction landfill. Sludge removed from the tanks as a result of decon activities would be solidified and stored on site. The vitrification facility system, components, and structure would also be deconned as necessary, disassembled, packaged, and placed into the Retrievable Storage Area. Although not analyzed in the DEIS, the WVDP plans to apply the incidental waste guidance to waste removal under this Alternative to the same degree as planned under Alternative I.

The post-implementation duration of this alternative is indefinite. In other words, no plans have been developed to remove the waste from its storage location, although the mode of storage is retrievable.

3.2.1 Issues with HLW Storage Area/Vitrification Facility Alternative II Description

There is one issue associated with the HLW storage area and vitrification facility under DEIS Alternative II as currently written. This is summarized as follows:

1. Long-term storage vs. de facto disposal - Alternative II in the DEIS indicates that wastes will be stored in retrievable form at the WVDP for an indefinite period of time. All analyses of impacts, both long- and short-term, presume that waste remains in storage indefinitely. By not specifying a discrete storage period and/or discussing possible "disposal" options following storage, the appearance is given that this alternative really represents *de facto* disposal simply from failure to take any further action once the waste is in storage. One issue raised by NYSDEC is whether this facility would actually need to be designed and licensed in accordance with requirements for a disposal facility.

3.2.3 Possible Responses to Issues

For the issue discussed above, there are three potential responses identified to resolve the issue. These responses are discussed in greater detail below.

1. Long-term storage vs. de facto disposal – Because Alternative II of the DEIS does not specify an end to the waste storage activity, several commentors indicated that this alternative really represents disposal. Since the incidental waste concept for the tanks and Vitrification Facility would also be employed for Alternative II, the wastes designated for storage in this facility would be low level. Therefore, there is no additional concern in this instance with long-term storage (or *de facto* disposal) of HLW.
 - a. Alternative II can be enhanced to reflect a discrete storage duration. At the end of the specified storage period (for example, 100 years), the options for waste disposition could be revisited. It may be that technology will have advanced during that period such that new treatment and/or disposal options would be available that make final waste disposition a more attractive option at that time. Also, the wastes will produce somewhat reduced occupational doses to workers in some cases, where short-lived isotopes such as Cesium have been able to decay during the storage

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period. Some contaminated soil may be able to be free released at that time. There are several scenarios that could be developed for this revised alternative that would more accurately portray it as a temporary "storage" alternative, rather than a default disposal alternative.

- b. If the decision is made to leave the storage duration open ended, then the implications of this alternative being a *de facto* onsite disposal alternative should be recognized. Although the storage facilities are designed so that the wastes will be monitorable and retrievable, the long-term nature of this alternative makes it difficult to support the claim of storage being a temporary solution. One option would be to pursue the "assured storage" concept, whereby it is acknowledged that indefinite storage may be the most viable solution to waste management at this point in time. While this is a relatively new waste management concept and little regulatory precedent has been established, some general requirements would be that the facility be designed with the rigor of a disposal facility while maintaining retrieval capabilities.
- c. If this alternative were selected for implementation, either as a whole or in part, this may create a situation in which a perpetual NRC license would be required. This is an acceptable option for sites that cannot satisfy any level of release criteria under the NRC's final rule for license termination. In the case of the West Valley site, a new NRC license would actually have to be issued or the former license reinstated. The specifics of this action have not yet been defined, since the final condition of the site will dictate the type and terms and conditions of the license. The specific requirements for this facility would be determined in collaboration with the appropriate regulatory agencies during preparation and review of the decommissioning plan and the application for a license.

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ALTERNATIVES IIIA AND IIIB

3.3.1 DEIS Alternative Description

Under both Alternatives IIIA and IIIB, the HLW tanks would not be decontaminated, and the sludge inside the tanks would remain in place. Confinement barriers would be constructed, and the tanks and the interior of the tank vaults would be backfilled with low-density concrete applied simultaneously from several access holes in the tanks and vaults to achieve uniform layers. The gravel layers and containment pans beneath the tanks would be backfilled along their perimeters.

Under Alternative IIIA, the vitrification facility would not be decontaminated. The steel and siding that forms the operating area around the vitrification cell would be removed. The stack would be removed and disposed of in the vitrification facility. Access and confinement barriers would be constructed, and the vitrification cell (including the melter, in-cell off-gas system, and the water transfer area) would be backfilled with low-density concrete. The resulting monolith would look like the existing building, but the inside would be filled with concrete. Security systems would be installed, and routine surveillance would be performed for long-term maintenance and monitoring.

Under Alternative IIIB, the vitrification facility would be dismantled in two phases. The first phase involved the dismantlement of the outer and ancillary portions of the facility, which would be deconned, with uncontaminated rubble temporarily stored on site. The second phase would be performed remotely within the confinement structure planned for this portion of dismantlement of the Process Building. The melter would be left in place, although other systems and equipment would be dismantled and placed at or below grade, as needed, for encapsulation in concrete as closure is completed.

3.3.2 Issues with HLW Storage Area/Vitrification Facility Alternative III Description

There are a number of issues associated with the HLW storage area and vitrification facility under DEIS Alternative III. The issues involve assumptions about the quantity and classification of residual waste remaining at closure, as well as the adequacy of the proposed conceptual closure designs. These are discussed in greater detail below.

1. Quantity and classification of residual waste - As discussed previously, the regulatory sections in the DEIS did not recognize the existence of a process for cleaning up HLW facilities to the point where the residual waste can be classified as incidental. The DEIS assumed that the HLW Tanks contained a 3% heel and the melter contained about 500 kg of radioactive glass at the conclusion of vitrification operations. The viability of these residual waste inventories needs to be evaluated against incidental waste criteria.
2. Generic closure design weaknesses - The conceptual closure designs analyzed in the DEIS are generic in nature - they were not designed with any facility or waste-specific enhancements that would improve their performance above that of a "standard" generic design. For example, the design for the HLW storage area does not employ an engineered cover above the tanks, nor do the HLW storage area or vitrification facility designs employ any special grout formulations designed to minimize migration of radionuclides. As a result, the DEIS performance assessment indicates that the performance objectives in 10 CFR 61.41 and 10 CFR 61.42 will not be met.

WASTE MANAGEMENT AREA 3 - HLW STORAGE AREA & VITRIFICATION FACILITY

3.3.3 Possible Responses to Issues

Discussed below is an integrated approach for addressing the issues identified above.

1. Satisfying NRC incidental waste guidance - As discussed in Section 3.1.3, there are three criteria that need to be met in order to classify residual waste as incidental.
 - Compliance with 10 CFR Part 61 Performance Objectives - The wastes are managed, pursuant to the Atomic Energy Act, so that safety requirements comparable to the performance objectives set out in 10 CFR Part 61 are satisfied.
 - §61.41 - Protection of the general population from releases of radioactivity
 - §61.42 - Protection of individuals from inadvertent intrusion
 - §61.43 - Protection of individuals during operations
 - §61.44 - Stability of the disposal site after closure
 - Waste Classification - The wastes will be incorporated in a solid physical form at a concentration that does not exceed the applicable limits for Class C low-level waste as set out in 10 CFR Part 61.
 - §61.55 - Waste classification, or
 - §61.58 - Alternative requirements for waste classification and characteristics
 - Assessment of Technical and Economic Feasibility - The wastes have been processed to remove key radionuclides to the maximum extent that is technically and economically practical.

Addressing these three criteria will provide an integrated approach for protecting public health and safety as well as ensuring that the degree of waste removal is commensurate with the proposed conceptual closure design.

A. Compliance with 10 CFR Part 61 Performance Objectives

The revised performance assessment for the HLW Tanks will be based on an improved closure design that employs a defense-in-depth concept. The design will use multiple barriers as well as specially formulated stabilization materials in order to minimize doses. By conducting the performance assessment in this manner, it will be possible to estimate the minimum extent of waste removal necessary to meet 10 CFR 61.41 and 10 CFR 61.42. It is expected that the requirements for protection of the inadvertent intruder (10 CFR 61.42) will be limiting.

The tank closure design evaluated in the DEIS was a generic design that did not include facility specific design features such as an engineered cap or grout formulated to chemically immobilize radionuclides. Both of these facility specific design characteristics are existing technologies that substantially reduce the probability of contaminant migration and the likelihood of access by an intruder.

The DEIS performance assessment indicated that this basic tank closure design was not adequately protective of human health and the environment. In contrast, a preliminary assessment has

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indicated that the new enhanced design, in concert with waste removal, is expected to provide performance assessment results that clearly satisfy Part 61 performance objectives and the new NRC rule for license termination. A complete performance assessment for this facility using the new closure design is currently being prepared. The relative contribution of this facility to a North Plateau intruder will be determined when a preferred alternative is identified and the North Plateau source terms can then be combined and assessed for the North Plateau intruder scenario. This assessment will also be carried forward for the site as a whole when assessing the dose to the Buttermilk Creek resident and the various offsite receptors.

Site stability characteristics are an integral part of the performance assessment model. Assuming that the performance assessment results satisfy §61.41 and §61.42, then the site stability performance objective will also be satisfied (§61.44). Finally, the fourth performance objective -- protection of individuals during operations (§61.43) -- will be addressed as part of the decommissioning plan.

B. Waste Classification

In accordance with the second requirement of the incidental waste guidance, the residual waste remaining following completion of waste removal activities must satisfy the requirements for Class C LLW, at a minimum. However, estimating the waste class formed by closing a former HLW storage tank in-place is complicated and subject to several interpretations. The different methods that could be used to calculate the waste class are primarily a function of the degree of mixing achieved during the closure process and any assumptions that are made regarding the mass or volume over which the residual activity is distributed. Guidance on the acceptability of the different assumptions that can be used for residual waste classification are available in the NRC Final Branch Technical Position (BTP) on Concentration Averaging and Waste Encapsulation¹.

The BTP provides guidance on acceptable waste classification and encapsulation practices for a variety of waste types. Eight generic waste cases are discussed in the BTP and guidance is provided for each on the allowable limits for concentration averaging and waste encapsulation. Since the guidance can not address all unique waste types or waste packaging methods, an "Alternative Provisions" section is included that defines the bases and procedures through which other concentration averaging or encapsulation positions may be judged acceptable. As discussed in the BTP, the method for pursuing the Alternative Provisions approach would be to invoke 10 CFR 61.58. The applicability of this approach for classifying the residual waste in the HLW tanks is discussed in the following section.

Waste Classification According to §61.58

The alternative waste classification provisions delineated in §61.58 were promulgated because the waste disposal conditions analyzed in support of the Part 61 Rulemaking did not adequately encompass the range of conditions that may be encountered during implementation under Part 61. The Part 61 rulemaking analysis evaluated the disposal of commercial nuclear waste streams at a generic site. Due to the unique nature of fuel reprocessing waste streams and the atypical WNYNSC site conditions, the NRC has

¹Nuclear Regulatory Commission, "Final Branch Technical Position on Concentration Averaging and Encapsulation," January, 1995.

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indicated that it may be appropriate to submit an analysis under §61.58. In a June 8, 1992 letter,² the NRC stated that as an alternative to waste classification under §61.55, the site specific, performance-based approach allowed in §61.58 could be used to determine the nature and inventory of WVDP wastes suitable for near surface disposal.

Section 61.58 allows for alternative waste classification approaches as long as an analysis is conducted that provides reasonable assurance that the Part 61 performance objectives will be met. Previous NRC guidance³ has indicated that any performance assessment conducted to address WVDP waste classification issues must be cumulative and include all disposed wastes. Accordingly, the performance assessment that is being conducted to address §61.41 and §61.42 will be cumulative and include the interaction of multiple source terms.

C. Assessment of Technical and Economic Feasibility

As required by NRC incidental waste guidance, waste will be removed from the HLW Tanks and the Vitrification Facility to the extent that is technically and economically practical. This may result in residual waste inventories that are less than 3% heel in the tanks or 500 kg of glass in the melter. At a minimum, the extent of waste removal will be sufficient to meet Part 61 Performance Objectives. However, the requirement to achieve waste removal to the extent technically and economically feasible could likely result in waste removal in excess of that required to meet the Part 61 objectives.

²R.M. Bernero (NRC), Letter to M.D. Olsen (DOE), June 8, 1992.

³Nuclear Regulatory Commission, "Evaluation of West Valley TRU and Waste Classification Limits," April 27, 1988.

WASTE MANAGEMENT AREA 3 – HLW STORAGE AREA & VITRIFICATION FACILITY

ALTERNATIVE IV

3.4.1 DEIS Alternative Description

Under Alternative IV, the HLW tanks would continue to be managed as is with long-term monitoring, maintenance, and surveillance. The HLW storage area would be monitored for structural integrity and corrosion. Security measures would also be instituted. Vitrification facility systems would be flushed to remove any hazardous constituents, the exhaust stack would be removed and disposed offsite, alarm systems and security locks would be installed, and any exterior access doors would be welded shut. The security systems would be remotely monitoring, and periodic radiation surveys would be conducted. Regular inspections, painting, and repairs would be performed as required.

3.4.2 Issues with HLW Storage Area/Vitrification Facility Alternative IV Description

There are two primary issues associated with Alternative IV as written. These are discussed below.

1. Satisfying NRC incidental waste guidance – Similar to Alternative III, it is assumed that a 3% heel remains in the HLW Tanks. Using this starting inventory and assuming a loss of institutional controls, the DEIS performance assessment indicates that the Performance Objectives in Part 61 will not be met. Under this scenario, the heel would still be considered HLW.
2. Best-case assumption regarding continued tank integrity – The DEIS assumed that, under Alternative IV, the HLW tanks would be monitored and maintained in their current condition until the required institutional control failure occurred. At that point, the tanks would be allowed to deteriorate. However, given the ongoing corrosion of the carbon steel tank structure – both measured and estimated – that is currently occurring, and given that this alternative also assumes a 3% heel with no decon during that 100-year monitoring and maintenance period, the likelihood that the tanks can retain their current integrity over this timeframe is doubtful. Extending this scenario to a 1000-year performance period, it is considered unrealistic, given current technology, to ensure tank integrity under a monitor and maintain configuration.

Monitoring would allow early detection of a release from the tanks, and corrective action could be taken, which differentiates this alternative from Alternative V. However, no attempt was made in the DEIS to predict early failure or to develop possible responses and associated costs and impacts. Therefore, using a cost-benefit approach in alternative selection based on the current DEIS data may artificially make Alternative IV more attractive than it would be in actual implementation.

3.4.3 Possible Responses to Issues

Even assuming greater waste removal from the tanks than the assumed 3%, the inability of this scenario to achieve satisfactory performance assessment results that meet the Part 61 performance objectives renders this a technically nonviable alternative for implementation, even with an NRC license in perpetuity. Therefore, DOE and NYSERDA have indicated that an Alternative IV scenario for the tanks will not be considered during selection of a preferred alternative.

COALITION ON WEST VALLEY NUCLEAR WASTES
Sharp Street · East Concord, NY 14055 · (716) 941-3168



Shirley Ann Jackson, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Jackson:

Thank you for your letter of December 24. I gather from your letter that the Coalition on West Valley Nuclear Wastes will not be invited to address the Commission at the January 12 meeting in Rockville. As you indicate in your letter, our written statement will receive the same consideration as will the oral presentations at the meeting.

This arrangement appears to be satisfactory. We have no particular desire to make an oral presentation as long as our 15-page written statement dated December 2 will receive equal consideration. Nevertheless, I want to raise a couple of possible procedural concerns about this arrangement. Let me run them past you, so to speak, and you and the other Commissioners can then decide whether anything further needs to be addressed in these areas.

Our purpose here is to eliminate any possible misunderstanding prior to the January 12 Commission meeting. We do not mean to suggest that any misunderstanding exists but believe that it is better to say too much rather than too little prior to this important meeting. Thus, please treat the remainder of this letter as a checklist. If you and the other Commissioners see nothing therein that needs further attention, then I think we can agree that there are no substantial procedural misunderstandings.

As background, please note the following points we raised in our letters of December 2 and 3. In our December 2 letter to Bill Hill (sent as a cover letter with the faxed copy of our December 2 statement), we asked, "Do the Commissioners want an opportunity at the January 12 briefing to ask questions in person regarding our enclosed written statement?" In our December 3 letter to you, (sent as a cover letter with the paper copy of our December 2 statement), we noted that we "are not planning to make an oral presentation at the January 12 briefing unless you think our presence there would be useful to provide further explanation or answer questions."

In your December 24 letter, you do not respond specifically to these points. Instead, you indicate 1) that other stakeholders, including the West Valley Citizen Task Force, have been invited to address the Commission on January 12, and 2) that written statements such as our own will receive equal considera-

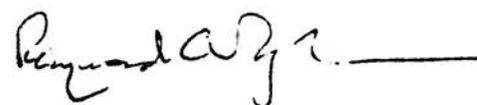
tion. These are the two areas in which we need to make sure that no misunderstanding exists.

One possible concern involves the following sentence in your letter: "The West Valley Citizen Task Force, of which you are a member, and other stakeholders, have been invited to address the Commission in that meeting." The phrase "of which you are a member" is factually accurate. If this phrase has no further implications, then we see no problem. If, on the other hand, the phrase implies that the Citizen Task Force (CTF) can and should present and explain the views of the Coalition on West Valley Nuclear Wastes on January 12, then we disagree. As you know, our 15-page statement delves into issues of greater complexity than those raised by the CTF. We do not mean to suggest any disagreement between our views and those of the CTF, but, simply, that we are a much older organization than the CTF and have dealt with certain aspects of the West Valley site in a more detailed or technical way than the CTF has done.

The second possible concern involves the equality of oral presentations and written statements. In and of itself, an oral presentation seems generally comparable to a written statement. However, you and the other Commissioners apparently intend to ask questions and/or engage in discussion with those who make oral presentations on January 12, presumably for the purpose of improving understanding of various points. This is the area in which we are concerned that a written statement may not receive equal consideration. Granted, the Commissioners would also have the option of using letters or telephone calls to ask questions or engage in discussion of our December 2 statement. In either case, we think it is incumbent on the Commissioners to employ methods at their disposal to ensure a clear understanding of the points raised in our 15-page statement dated December 2. In the absence of oral or written questions, we will assume that all of the points we have raised are clearly understood.

In conclusion, we think the January 12 meeting and the pre- and post-meeting deliberations of the Commissioners will provide a welcome opportunity for NRC to gather relevant information and move toward a clear policy for the West Valley site. We look forward to the outcome and wish you well in this and your future endeavors.

Sincerely,



Raymond C. Vaughan

cc: T. Attridge, CTF
B. Mazurowski, DOE
P. Piciulo, NYSERDA
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January 6, 1999

The Honorable Shirley Ann Jackson
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Jackson:

On behalf of the New York State Department of Environmental Conservation (NYSDEC), I would like to thank the Commission for the opportunity to comment on document SECY-98-251, Decommissioning Criteria for West Valley. Enclosed with this letter are NYSDEC's written comments. We have also accepted the Commission's invitation, transmitted to us by Bill Hill of your Secretary's Office, to allow NYSDEC staff to present our comments to them in person at the Tuesday, January 12, 1999 meeting in Washington, D.C.

We look forward to meeting with the Commissioners on this issue, which is extremely important to the State of New York.

Sincerely,

/s/

Carl Johnson
Deputy Commissioner

Enclosure

New York State Department of Environmental Conservation
Comments on the United States Nuclear Regulatory Commission Paper
Decommissioning Criteria for West Valley, SECY-98-251
December 23, 1998

1. The Commission should formally acknowledge the status of New York State as a co-regulator at the WNYNSC.

In the Commission Paper, the Nuclear Regulatory Commission (NRC) should explicitly acknowledge that the State of New York is a co-regulator of the Western New York Nuclear Services Center (WNYNSC) at West Valley. The State is involved in a regulatory capacity at the site through several avenues.

First, through our capacity as an Agreement State regulatory agency, the New York State Department of Environmental Conservation (NYSDEC) is responsible for environmental permitting and oversight of site monitoring and maintenance for the formerly operated State-licensed Waste Disposal Area (SDA) at West Valley, and over the areas of the site not controlled under the federal West Valley Demonstration Project Act (WVDPA) and not covered by the NRC license currently in abeyance. NYSDEC will have regulatory authority over any areas of the site which are "free released" by NRC. As such, NRC should seek the concurrence of NYSDEC on cleanup levels and any residual activity left on these areas prior to NRC releasing those areas.

Next, as the environmental agency of New York State, NYSDEC has regulatory authority under the Resource Conservation and Recovery Act (RCRA), the Toxic Substances Control Act, the Clean Water Act, the Clean Air Act, and corresponding State laws and regulations. NYSDEC has signed a 3008(h) Consent Order with DOE and NYSERDA to address hazardous waste at the site. It is important that any decision regarding radiological site decommissioning be acceptable from a RCRA standpoint, since the two waste forms are co-mingled in many of the site areas.

Further, NYSDEC is also involved in the environmental impact statement (EIS) process. We are a *cooperating agency* under the National Environmental Policy Act and an *involved agency* under State Environmental Quality Review Act (SEQRA).

Finally, In its role as an Agreement State regulatory agency, the New York State Department of Labor (NYSDOL) is the radioactive materials licensing agency for the SDA. The New York State Department of Health (NYSDOH), another New York State Agreement State agency, conducted radiological environmental surveillance around the site in the 1960s and from 1982 to the present (NYSDEC conducted the program from 1970 through 1981).

2. NYSDEC recommends that NRC and the NYSDEC enter into a Cooperation Agreement on regulating the closure of the West Valley site.

Therefore, NYSDEC would expect that all GTCC waste would be removed from the site in a timely manner for final disposition at a federal repository as required by the NRC in Part 61. However, given the hazards involved in exhuming the GTCC waste already interred at the site, we are willing to consider leaving it in place for an extended period, provided that the Federal Government makes a concrete commitment to maintain a presence at the site for as long as this waste is on the WNYNSC, in order to ensure adequate protection of the environment and the health of the people of the State of New York.

NYSDEC expects that the NRC will acknowledge the need for a federal commitment to maintain a presence at the WNYNSC in SECY-98-251.

11. The Decommissioning Criteria should apply to on-site and off-site contamination.

NRC should clarify the jurisdiction of the NRC license (currently in abeyance) over the WNYNSC. In particular, we refer to the presence of surface soil contamination both on and off of the WNYNSC, but outside of the WVDP area. This contamination resulted from accidental releases from the former fuel reprocessing operation licensed by the NRC. The definition of "residual radioactivity" in the decommissioning rule includes "radioactive materials remaining at the site as a result of routine or accidental releases of radioactive material." The NRC should make it clear that the criteria will apply to such radioactive material on and near the WNYNSC.

12. The NRC should address the difference between the decommissioning of an operating facility and the closure and stabilization of radioactive waste disposal sites.

NYSDEC questions the NRC's broad interpretation of the term "decommissioning criteria." The decisions to be made regarding the final disposition of the WNYNSC are, in fact, complicated by the unique nature of the site in that it does not fit the standard scenarios for which existing regulations were written. The presence of an operational facility in need of decommissioning, high-level waste tanks to be closed or removed, a pre-Part 61 federally licensed waste burial area, an interim storage area (the drum cell), and a pre-Part 61 Agreement State licensed waste burial area, make it a difficult site for which to develop criteria. However, we do not agree with characterizing the clean up of all of these areas under an expanded definition of the term "decommissioning criteria."

In its regulations, NRC recognizes the difference between decommissioning of an operational facility (addressed in 10 CFR Part 20) and closure and stabilization of a waste disposal facility (addressed in 10 CFR Part 61). The distinction is drawn in Section 20.1401, *General Provision and Scope*, of the decommissioning rule, which states, "For high-level and low-level waste disposal facilities (10 CFR parts 60 and 61), the criteria apply only to ancillary surface facilities that support radioactive waste disposal activities." We recognize that neither the SDA nor the NDA were designed or operated to meet 10 CFR Part 60 or 61. Nevertheless, they both were commercial disposal facilities and their scope of operations of which exceeded what was envisioned in the former 10 CFR 20.302 and 20.304 (burials authorized under those regulations are included in the definition of "residual radioactivity" in the decommissioning rule).

The distinct differences between the types of areas on the site, and the differences in the

approach required to properly close them, should be addressed in SECY-98-251.

13. The terms referring to the WNYNSC and its subdivisions should be used consistently.

In the Commission Paper, SECY-98-251, the section entitled *Purpose* contains the phrases "West Valley Demonstration Project," the "West Valley site," and the "site," but the NRC staff does not clearly explain the current division of the property or how they apply these descriptions to them.

The "West Valley site" apparently refers to the 3,345-acre WNYNSC, which was originally created by New York State with the intent of developing a multipurpose center for nuclear technologies. The "West Valley Demonstration Project" refers to that 200-acre portion of the site currently controlled by the DOE under the WVDPA in order to demonstrate the feasibility of a process for vitrification of liquid high-level radioactive waste stored in underground tanks at the site. Immediately adjacent to that 200-acre parcel is a former commercial radioactive waste land burial facility regulated by the State of New York under the Agreement States program.

The paper should use the appropriate term to clearly indicate the portion of the site being addressed.

Attachment