UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	Docket Nos. STN 50-528
	STN 50-529
ARIZONA PUBLIC SERVICE COMPANY, et al.	STN 50-530
(Palo Verde Nuclear Generating Station, Units 1, 2, and 3)	

SUPPLEMENTAL MEMORANDUM IN SUPPORT OF THE PETITION OF WEST VALLEY AGRICULTURAL PROTECTION COUNCIL, INC., TO INTERVENE IN LICENSING PROCEEDINGS

I. INTRODUCTION

West Valley Agricultural Protection Council, Inc. ("West Valley"), submits this supplemental memorandum in support of its petition to intervene in the above-captioned proceedings in order to clarify certain facts and issues which the Joint Applicants have raised in their Response of November 9, 1982, and in order to reply to the November 15, 1982, Response of the NRC Staff.

On October 14, 1982, West Valley filed a Petition to Intervene in the above-captioned licensing proceeding on the basis of new and substantial information provided by a trio of highly knowledgeable experts and on the basis of evidence that the Environmental Impact Statements ("EIS") and Environmental Reports ("ER") previously prepared in this matter failed to contain adequate analysis of the effects of aerosol salt

deposition from PVNGS on the leaves of crops grown by the $100 million agricultural industry in the PVNGS region. As set forth in detail in West Valley's petition and supporting documents, West Valley farmers received their first initial indications that salt drift from the PVNGS cooling towers could potentially affect agricultural production in late Spring 1982. See West Valley Memorandum of Law, at 4-5. On the basis of these initial indications, West Valley members hired highly respected experts to explore the entire range of issues relating to salt drift from PVNGS cooling towers. It was only after these experts submitted detailed reports, analyzing for the first time anywhere the potentially severe impact of aerosol salt deposition on the leaves of crops in the dry environment of the PVNGS region, that West Valley's members had any meaningful indication that the EIS and ER failed to analyze properly the effects of such salt deposition. Promptly after receiving these reports, West Valley filed its petition to intervene.

Joint Applicants' Response, rather than demonstrating any grounds for denying West Valley's petition, highlights the superficiality and inadequacy of the analysis of salt deposition on crop leaves in the EIS and ER. In their Response, the Joint Applicants argue that the NRC adequately "analyzed" the effects of salt deposition on the leaves of crops merely by looking at other studies conducted in different climates and concluding that these studies were inapplicable here because they were conducted in other climates. Joint

Applicants' Response, at 21-22. After dismissing these studies, the Joint Applicants conclude that, because there is no evidence showing salt problems in dry environments like PVNGS, the NRC was not required to conduct further studies or analysis. Id.

As explained below, this is hardly the analysis required by the National Environmental Policy Act. As pointed out by West Valley's experts, earlier studies are not directly applicable to PVNGS because the climate near PVNGS can cause conditions that lead to salt deposition on leaves posing an even greater danger to agriculture than in the climate regions discussed in the other studies. Failure to analyze and explain these studies, failure to highlight the environmental dangers they demonstrate, failure to conduct a meaningful analysis of their application to a desert environment, and failure to conduct additional studies is precisely the kind of superficial analysis and gross omission that justifies late intervention by West Valley. See Part II, infra.

The Joint Applicants are also incorrect in their assertions that intervention by West Valley would substantially delay operation of PVNGS. The Joint Applicants do not argue that intervention by West Valley would delay PVNGS Units 2 and 3, and, as West Valley argues, the final operating license hearing on these units is being held years earlier than permitted by law. Although Joint Applicants contend that West Valley's intervention might cause, through an exaggerated version of the hearing schedule, some brief delay in Unit 1,

West Valley submits that, under the Board's extensive powers to control the conduct of proceedings, its intervention can proceed during the year remaining before Unit 1 goes into operation without delaying that unit.

The Joint Applicants and the NRC staff also contend that West Valley need not intervene in this proceeding, since they can protect their interests through other means -- by instituting an action for damages after they are driven out of business by salt deposition on the leaves of their crops. This form of relief is inconsistent with the intent behind the NRC licensing process and with the intent of NEPA.

In major portions of their response, Joint Applicants improperly seek to turn consideration of West Valley's petition into a debate on the merits. Although West Valley looks forward to questioning Joint Applicants' experts at the hearing stage, such a debate is not required for the Board to grant its Petition to Intervene. West Valley need only assert one valid contention to intervene -- it need not prove its contentions at this stage.

Finally, even if consideration of the merits were proper, it is evident that Joint Applicants' submissions themselves demonstrate substantial confusion in the record regarding the facts on which salt drift calculations and conclusions on the effect of salt on crops are based. Joint Applicants submissions thus demonstrate the need for a hearing to resolve these important issues.

Each of the above issues as well as West Valley's reply to other issues raised in the responses of the Joint Applicants and the NRC Staff is discussed in further detail below.

II. WEST VALLEY HAS DEMONSTRATED GOOD CAUSE FOR ITS FAILURE TO FILE ON TIME

A careful review of Joint Applicants' Response, particularly the so-called analysis contained in excerpts from the ER's and EIS's quoted in Volume II, demonstrates that West Valley had good cause for its failure to file on time. West Valley does not contend merely that its members were "lulled into a false sense of security" by the NRC and the Applicant. Puget Sound Power and Light Company, (Skagit Nuclear Power Project, Units 1 and 2), ALAB-559, 10 NRC 162 (1979). Rather, West Valley submits that the NRC has performed "inadequate investigation" on an issue of extreme importance to West Valley's members and to the public at large -- the issue of whether aerosol salt deposition from PVNGS on the leaves of commercial crops will cause significant environmental and economic damage. See id. Because of West Valley's reliance upon the NRC's inadequate investigation on this issue, West Valley has an adequate excuse for its failure to file on time.

Joint Applicants' argument that the NRC in fact performed an adequate investigation of the salt issue does not withstand further analysis. Joint Applicants baldly assert that "as to field studies on the effects of salt deposition on

agriculture it was not necessary for the NRC staff to discuss the few studies commissioned by other utilities and referred to by West Valley, or the specific findings of these studies." Joint Applicants' Response at 21. According to the Joint Applicants, discussion of these studies was unnecessary, since they were not "directly comparable" to PVNGS. Id. A careful review of the ER's and EIS's contained in Volume II of Joint Applicants' Response shows that the NRC and the Joint Applicants felt that they could essentially disregard these studies since the climatic conditions in the studies and those of the PVNGS were different. Id. at 11, 32, 38.

The difference in climate conditions at the site of the studies and the PVNGS site is, however, precisely the basis of West Valley's argument. According to West Valley's experts, the differing conditions mean that the potential impacts of salt deposition are far greater here. Specifically, the fact that the PVNGS has limited rainfalls while the study sites had frequent rainfalls means that there could be, over time, significant accumulations of salt on plant leaves near PVNGS which could have disastrous effects when activated by one of the region's infrequent, weak rainfalls. Both the EIS's and ER's, however, fail to analyze this critical point. The Joint Applicants fail to cite a single expert who would disagree with our experts' view that salt deposition in the dry PVNGS environment could cause more serious consequences than in the areas of prior studies. We submit that there are no such experts. As demonstrated in our experts' reports, proper

analysis of climatic factors should have made it clear to NRC that other studies could be indirectly but meaningfully compared to the PVNGS region on the basis of total salt accumulation on leaves between rainfalls. Failure to undertake such a comparison and failure to discuss and analyze this point fully is the kind of inadequate investigation which justifies West Valley's late intervention.

The issue of salt deposition on the leaves of plants has been investigated in considerable detail at other sites. For the Vienna, Maryland project, detailed studies were performed on the salt deposition characteristics of mechanical cooling towers similar to those at PVNGS. Although the proposed Vienna unit was significantly smaller in size than PVNGS, the Vienna study still found that salt deposition from this facility could cause severe effects on plants. In light of the fact that there is a meaningful criterion to compare this study with PVNGS--the amount of salt accumulation between rainfalls--these results should have been discussed and analyzed in considerable detail.

Moreover, the mere number of pages of alleged analysis contained in Volume II of Joint Applicants' Response and outlined in the NRC Staff Response cannot support claims that there was adequate investigation and discussion of the effects of aerosol salt deposition on crop leaves. Even a cursory review of Volume II demonstrates that virtually all of the discussion of salt deposition in the EIS and the ER concerned the effects of salt on soil and on native species.

There is virtually no discussion of the effects of salt deposition on the leaves of agricultural crops. What little discussion there is of such deposition is a mere recital of a limited amount of information about the known effects of salt on leaves and contains no meaningful analysi of the problem as it relates to PVNGS. See Joint Applicants' Response, Appendix II at 7, 9, 11.*/ This is clearly inadequate under NEPA. See, e.g., 40 C.F.R. §1502.2(a) (1981) (CEQ guidelines require that "environmental impact statements be analytic rather than encyclopedic").

Some of the statements contained in Joint Applicants' Volume II are, in fact, highly misleading. The discussion at page 9, for example, while acknowledging that there may be some salt buildup on vegetation, notes that "the low humidities and infrequent occurrence of dew in the region of the site would reduce the magnitude of potential salt effects on the surrounding vegetation." This discussion fails to recognize that, when such infrequent episodes of humidity do occur, the effects of the very large amounts of salt built up on the leaves could be devastating. (Mulchi Report, at 13-14.) For these reasons, Volume II cannot be viewed as evidence that the Applicant and the NRC conducted an adequate investigation.

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*/ In spite of this inadequacy, the initial decision granting the operating license indicates that the public has no need for concern: "the record supports a finding that these effects will be temporary and/or localized and are expected to be minimal." Arizona Public Service Co. (Palo Verde Units 1, 2 and 3), LBP-76-21, 3 NRC 662, 686 (1976).

The acquisition of significant new information by West Valley also provides it with an adequate excuse for its failure to file on time. Contrary to Joint Applicants' assertions, West Valley's members have not merely "educated themselves" with regard to the salt deposition issue. South Carolina Electric & Gas Co. (Virgil C. Summer Nuclear Station, Unit 1), LBP-81-11, 13 NRC 420 (1981). They have, rather, attempted to educate the Joint Applicants and the NRC by developing studies which, for the first time anywhere, apply state of the art scientific knowledge and recent studies to salt deposition on the leaves of commercial crops in a desert environment. When viewed in light of the NRC's inadequate investigation of and the misleading statements on this issue, West Valley submits that it could not have ascertained the information contained in these studies at an earlier time. Contrary to the precedent cited by the NRC Staff, NRC Staff Response, at 14, West Valley does not merely contend that it was unfamiliar with NRC procedures or reasonably foreseeable consequences. Rather, West Valley submits that it could ascertain this new information only after its experts' studies were complete. Accordingly, West Valley's diligence in discovering and setting forth this new information should excuse its earlier tardiness in failing to intervene.

III. INTERVENTION BY WEST VALLEY WILL NOT MATERIALLY DELAY THE PROCEEDINGS

As noted in West Valley's earlier memorandum, given the significant lead times before the scheduled fuel loadings

for PV2 and PV3, there is currently no reason to believe that prompt and proper consideration of the salt deposition issue raised by West Valley would in any way delay operation of these units. In addition, Joint Applicants and the NRC Staff fail to set forth any reason why the construction and operation of those units would necessarily be delayed by the grant of West Valley's petition. It is thus clear that, as to PV2 and PV3, the delay factor weighs in West Valley's favor and would support the grant of the Petition to Intervene.

As to PV1, there is no reason to believe that consideration of West Valley's contentions cannot proceed quickly and be concluded before the August 1, 1983, fuel loading date for that unit or soon thereafter. Joint Applicants' inflated discovery schedule need not govern these proceedings--West Valley's experts are highly qualified and are capable of analyzing discovery information quickly and completely, West Valley will cooperate in reasonable efforts to conduct discovery through informal means and the Board has extensive inherent power to expedite these proceedings. Finally, and most importantly, West Valley's experts believe that there are a variety of flexible technical solutions which allow Unit 1 to begin operation on or near schedule, while also reducing the amounts of salt deposition from PVNGS. See West Valley Memorandum of Law at 14.

IV. NEITHER EXISTING PARTIES NOR OTHER MEANS CAN ADEQUATELY PROTECT WEST VALLEY'S INTERESTS

Joint Applicants and the NRC Staff assert that existing parties and means other than intervention will fully protect West Valley's interests. The parties and means proposed by Joint Applicants and the Staff are, however, grossly inadequate.

According to the Joint Applicants, West Valley need not intervene here, since the Joint Applicants themselves and the NRC Staff can protect West Valley's interests. The Joint Applicants contend that their proposed salt monitoring program, when combined with West Valley's ability to request the NRC Staff to institute proceedings to modify the operating license, will assure adequate consideration of West Valley's concerns. Given the Joint Applicants' obvious interest in minimizing the danger of salt deposition, their failure to institute necessary base year monitoring and the potentially devastating effects of salt deposition on the farms of West Valley's members, the Joint Applicants are obviously unwilling to protect West Valley's interests. Moreover, it is well established that the NRC Staff, no matter how well intentioned, cannot reasonably be expected to attach the same importance to an intervenor's issue as the intervenor would itself:

> Although the Staff clearly represents the public interest, it cannot be expected to pursue all issues with the same diligence as an intervenor would pursue its own issue. Moreover, unless made an issue in this proceeding, it would not attempt to resolve the issue in an adjudicatory

> context. Giving all possible deference to the adequacy of the Staff's review, we conclude that the Applicants' reliance on the Staff review gives inadequate consideration to the value of a party's pursuing the participational rights afforded it in an adjudicatory hearing.

Cincinnati Gas and Electric Company (William H. Zimmer Nuclear Station), LBP-79-22, 10 NRC 213, 215 (1979) (emphasis added). For these reasons, it is clear that West Valley's interests cannot be protected by other parties and that West Valley must intervene to protect these interests.

The Joint Applicants and the NRC Staff also assert that West Valley's interests can be protected through other means--namely, the institution of a state law action for damages or equitable relief. As a practical matter, however, this alternative forum will not adequately protect West Valley's interests. As noted in West Valley's experts' reports, there is a substantial probability that salt deposition from PVNGS would severely damage commercial crops in the region and force West Valley's family farmers out of business altogether. This possibility is quite real, given the precarious nature of farming in a desert environment and the minimal profit margins realized by farmers under current economic conditions. Should these farm failures occur, West Valley's theoretical right to legal relief would be of little value, since its individual members would not have sufficient resources to pursue such relief. In addition, proof in such an action would be severely complicated by the fact that the Joint

Applicants have conducted no baseline monitoring in the PVNGS region.

Moreover, even if West Valley's members could seek damages for the effects of salt deposition, these damages would clearly be inadequate, for they could not compensate for the irreparable damage caused to the farmers, their families and the local community by the failure of farms and the surrendering of valuable farmland to the desert.

Finally, reliance on later judicial proceedings is, under the facts of this case, inconsistent with the overall scheme of NRC licensing and the intent of NEPA. West Valley submits that, in this case, the Joint Applicants and the NRC Staff have taken this principle to a ridiculous extreme--will they next require that other significant environmental issues or even nuclear safety issues be left to state court action after the plant is in operation? Both the NRC and NEPA regulations clearly require that significant environmental questions, such as those raised by West Valley's petition, must be fully explored before the plant is allowed to begin operation. See 10 C.F.R. Part 51, 40 C.F.R. Part 1500 (1981). Given West Valley's extensive expertise on the salt deposition issue, its participation in these proceedings with the full rights of a party is necessary to assure that these issues are properly considered and that West Valley's interests are fully protected.

V. WEST VALLEY'S PARTICIPATION WILL ASSIST IN DEVELOPING A SOUND RECORD

West Valley submits that its participation would greatly assist in the development of a sound record and that this factor weighs very heavily in support of its Petition to Intervene. As set forth in detail in West Valley's Memorandum of Law, at 12, West Valley has at its disposal three preeminent scientific experts, all of whom have substantial expertise regarding the prediction and effects of aerosol salt deposition from cooling towers. The expert reports accompanying West Valley's petition to intervene amply demonstrate the high degree of sophistication and analytical ability which these experts would bring to the consideration of the merits in this case.

In asserting that West Valley will not contribute to the record, the Joint Applicants have seriously misconstrued applicable precedent. The facts of Puget Sound Power and Light Co. (Skagit Nuclear Power Project, Units 1 and 2), LBP-79-16, 9 NRC 711 (1979) are, for example, easily distinguishable from the present case. In Skagit, the Board found that an Indian tribe could not contribute to the record because, inter alia, the tribe did not describe their expert's qualifications, had only limited resources and provided only sketchy outlines of their expected testimony. Id. at 718. Even a cursory review of West Valley's petition and its experts' reports indicates that these deficiencies do not exist here.

Joint Applicants' contentions that West Valley's experts have not provided any "hard evidence" is similarly misguided. As noted in part VI, infra, the merits of West Valley's petition may not properly be considered at this time. As a result, West Valley need not now make any evidentiary showing in support of the petition. Rather, West Valley need only demonstrate a prospective ability to contribute to the proceeding once it becomes a party. See Puget Sound Power and Light Co. (Skagit Nuclear Power Project, Units 1 and 2) ALAB-559, 10 NRC 162, 171 (1979) (petitioners must be "in a position to supply..." hard evidence bearing on their hypothesis).

Finally, the Joint Applicants are incorrect in their claims that West Valley and its experts can offer only "mere speculation" on the salt deposition issue. West Valley's experts have prepared detailed reports based on state of the art scientific knowledge. These reports demonstrate that there is a serious likelihood that salt deposition near PVNGS may cause severe environmental problems. The mere fact that these reports discuss possibilities and probabilities (as do most responsible scientific studies) does not mean that these highly analytical reports can be dismissed as "mere speculation." West Valley submits that it is impossible for responsible experts to be any more precise.

VI. CONSIDERATION OF THE MERITS IS IMPROPER AT THIS STAGE OF THE PROCEEDING

Substantial portions of the Joint Applicants' Response are dedicated to refuting the merits of West Valley's contentions and its experts' reports. The Board may not, however, consider the merits of a petitioner's case in passing upon a petition to intervene. As a consequence, it would be improper for the Board to consider Joint Applicants' discussions of the ultimate merits. Although West Valley eagerly awaits an opportunity to demonstrate the validity of its contentions on the merits, discussions of the merits are irrelevant here, since they have no bearing on the grant of West Valley's petition to intervene.

The Commission has consistently followed the rule against considering the merits when passing on a petition to intervene. In the leading case of Mississippi Power and Light Company (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423, 424 (1973), the Commission strongly emphasized that arguments on the merits have no place in the consideration of a petition to intervene:

> ...[W]e stress again that, in passing upon the question as to whether an intervention petition should be granted, it is not the function of a licensing board to reach the merits of any contention contained therein. Moreover, Section 2.714 does not require the petition to detail the evidence which will be offered in support of each contention. It is enough that, as here, the basis for the contention respecting the inadequacy of the consideration of alternatives to the construction of this plant is identified with reasonable specificity.

(emphasis added). See also Commonwealth Edison Company (Byron Station, Units 1 and 2), LBP-81-30-A, 14 NRC 364, 366 (1981); Houston Lighting and Power Company (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542, 548 (1980). Although West Valley is convinced that its contentions are strongly supported by the merits, it presently has no obligation to provide detailed evidence to support its contentions or to prove the validity of each piece of evidence. Allens Creek, supra at 548. Rather, in order to prevail on its Petition to Intervene, West Valley need only present its reasons (i.e., the basis) for its contentions with reasonable specificity. Id. West Valley's detailed petition and the accompanying analysis in its experts' reports far exceed this minimum requirement. See id. at 548-49 (mere reliance on Project Independence sufficient basis for contention that biomass farms an alternative to nuclear energy).

VII. JOINT APPLICANTS' RESPONSE DEMONSTRATES THEIR CONSIDERABLE CONFUSION ON THE MERITS

Even if consideration of the merits were proper here, Joint Applicants' submissions demonstrate that there is substantial confusion in the record. In light of this confusion, it would be improper for the Board to reject West Valley's contentions on the merits without the benefit of further discovery and hearings.

Joint Applicants repeatedly assert, for example, that there will be no salt dust blowoff from the evaporation ponds

surrounding PVNGS since these ponds will always remain wet. Joint Applicants' Response at 62. Documents in Volume II of Joint Applicants' Response indicate, however, that "substantial" areas of the evaporation ponds will be dry and could accordingly contribute to salt drift. See Joint Applicants' Response, Volume II, at 26, 34. In light of these contradictory predictions, it is evident that further consideration of the merits is necessary.

Moreover, Joint Applicants' attempt to discredit West Valley's contentions on the merits ignores other contradictory evidence: Although Joint Applicants' "corrected" Exhibit 5 shows that salt deposition for as far as 6 miles from the site would be 5 lbs./acre-year, Joint Applicants ignore their own statements that these estimates may be off by a factor of 10 or more and thus ignore the fact that salt deposition within 6 miles of the PVNGS could, using their own figure, be as high as 50 lbs./acre-year. Joint Applicants' Response at 64. As explained in West Valley's expert reports, because the Joint Applicants used a water particle size rejected by the tower manufacturer and ignored salt drift from sources other than the towers, including salt drift from evaporation ponds which West Valley experts state will account for more salt drift than the towers themselves, Joint Applicants' model underpredicts the salt drift from PVNGS. See Davis Report at 1, 23. Clearly, further discovery and analysis is required on these points.

Most importantly, there is nothing in the factual record or in Joint Applicants' Response to contradict West

Valley's contentions and experts' reports on the potential for significant accumulations of salt on crop leaves in the PVNGS environment. The Joint Applicant has not offered any expert testimony to contradict West Valley's conclusions on this issue. Rather, the Joint Applicants merely assert that, because data from other studies is not "directly comparable" to PVNGS, this data has no bearing on the potential environmental consequences of PVNGS. Joint Applicants' Response at 70-71. This out-of-hand rejection of West Valley's informed expert analysis is no substitute for factual or scientific argument and clearly cannot support Joint Applicants' case on the merits.

VIII. REOPENING OF THE RECORD IS NECESSARY AND APPROPRIATE UNDER THE CIRCUMSTANCES PRESENTED HERE

West Valley has not previously briefed the issue of whether the record in this proceeding may be reopened, in recognition of that fact that it could not formally request such relief until made a party to the proceeding. West Valley contends, however, that its Petition to Intervene demonstrates the existence of major changes in fact and analysis which are material to the resolution of a major environmental issue. On this basis, West Valley submits that the Board is required to reopen the hearing sua sponte. See Commonwealth Edison Co. (LaSalle County Nuclear Station, Units 1 and 2), ALAB-153, 6 AEC 821 (1973). Should the Board fail to take such action, West Valley fully intends, once made a party, to make a formal

motion to reopen and, if necessary, conduct discovery to more fully demonstrate its right to reopen the proceedings. See Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-138, 6 AEC 520, 524 (1973). Out of an abundance of caution, however, West Valley will briefly set forth its arguments for reopening the hearings.

The Board may grant a motion to reopen a hearing where a party raises a significant environmental issue and where the motion is made in a timely manner. See Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit 2), ALAB-486, 8 NRC 9, 21 (1978). The significance of the salt deposition issue raised by West Valley in its petition is evident from the reports accompanying the Petition--reports which indicate that there is a substantial possibility, based on state-of-the-art scientific analysis and the most current scientific studies, that there will be major and severe environmental damage to crops in the vicinity of PVNGS. West Valley submits that its motion was made in a timely manner, since, prior to the preparation of West Valley's experts' reports, there was not a sufficient basis for reopening the hearings. In addition, West Valley contends that, even if its motion is untimely, West Valley has demonstrated good cause for its failure to file on time. See Part II, supra. This is especially true given the complexity of the analysis required of West Valley and its experts. See Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-138, 6 AEC 520, 526 (1973). Furthermore, if West Valley's motion is

untimely, the public interest demands that the record be reopened to consider the potentially severe effects to the environment in the PVNGS region and the $100 million farming industry in the area. See Metropolitan Edison Co. (Three Mile Island Nuclear Station), ALAB-486, 8 NRC 9, 21 (1978). Given the importance of West Valley's farms to the region, the continued operation of these farms is not, as Joint Applicants assert, merely a private interest. Finally, based on the detailed analysis contained in West Valley's experts' reports, the NRC might have reached different conclusions on the salt drift issue had this material been considered earlier. See Kansas Gas & Electric Co. (Wolf Creek Station, Unit 1), ALAB-462, 7 NRC 320, 338 (1978).

IX. A "WORST CASE" ANALYSIS IS CLEARLY REQUIRED BY NEPA UNDER THE CIRCUMSTANCES OF THIS PETITION

In contending that West Valley's "worst case" analysis is precluded by a NEPA "rule of reason," Joint Applicants have completely misconstrued West Valley's arguments and have ignored the specific requirements of applicable regulations.

West Valley does not dispute the general proposition that analyses under NEPA must be "reasonable." In the majority of cases, in which there is adequate scientific and technical information available to the decisionmaker, a worst case analysis, based on the most conservative assumptions, would be improper and misleading. In the present case, however, the NRC

and the Joint Applicants have acknowledged that there are gaps in current information regarding, inter alia, the effects of salt deposition on commercial crops in a desert environment. See Joint Applicants' Appendix II at 37-38. West Valley's experts have, moreover, demonstrated the significance of this missing information by supplying a detailed and well-supported scientific analysis demonstrating the potentially devastating consequences of salt deposition on the leaves of crops in the PVNGS region. In this situation, a worst case analysis is not only reasonable but is, in fact, a "statutory minima" under NEPA. See Sierra Club v. Sigler, 532 F.Supp. 1222 (S.D. Tex. 1982).

Current Council on Environmental Quality regulations expressly require that agencies conduct further studies or perform a worst case analysis where there are gaps in relevant important information:

> If (1) the information relevant to adverse impacts is essential to a reasoned choice among alternatives and is not known and the overall costs of obtaining it are exorbitant or (2) the information relevant to adverse impacts is important to the decision and the means to obtain it are not known (e.g., the means for obtaining it are beyond the state of the art) the agency shall weigh the need for the action against the risk and severity of possible adverse impacts were the action to proceed in the face of uncertainty. If the agency proceeds, it shall include a worst case analysis and an indication of the probability or improbability of its occurrence.

40 CFR §1502.22(b) (1981) (emphasis added).

In North Slope Borough v. Andrus, 486 F.Supp. 332 (D.D.C. 1980), rev'd on other grounds, 642 F.2d 589, 605 (D.C.

Cir. 1980), the Court noted that this provision would require preparation of a worst case analysis because of important shortcomings in information on the environmental effects of Arctic Ocean oil drilling. According to the Court:

> It is undisputed that much is still unknown about the consequences of oil exploration and drilling in severe environments such as the Beaufort Sea. Little is known, for example, about the Bowhead whale and about the impact which exploration and drilling will have on the species. NEPA requires that the "cost of uncertainty--i.e., the costs of proceeding without more and better information' be considered in the decision-making process. Current Council on Environmental Quality Regulations require the inclusion in the EIS of a worst case analysis where there are gaps in relevant information or scientific uncertainty.

Id. at 346 (emphasis added). Under the CEQ regulations, which are binding on the NRC in the preparation of an EIS, see 40 CFR §1500.3; 10 CFR §51.23(d)(1981), the NRC had a similar obligation--it was required to assure that the "cost of uncertainty" of proceeding without more information on the effects of salt on the leaves of commercial crops be considered by the decisionmaker. The NRC could have either performed studies on this issue or it could have conducted a worst case analysis of the salt deposition problem. See 40 C.F.R. §1502.22(a) (1981). It chose, however, to do neither. As a consequence, the EIS fails to address the very real possibility that salt deposition may severely damage the crops of West Valley's members. It is, thus, incomplete and misleading and must be supplemented or revised.

X. THE ENVIRONMENTAL CONCERNS RAISED BY WEST VALLEY MAY PROPERLY BE CONSIDERED AT THE OPERATING LICENSE STAGE

The NRC Staff submits that West Valley may not raise the environmental contentions set forth in its petition at the operating license stage, since these issues have already been considered at the construction permit stage. The Board, however, traditionally allows consideration of such issues at the operating license stage if: 1) the issues have not been adequately considered, or 2) significant new information has been developed. See, e.g., Houston Lighting and Power Company (South Texas Project, Units 1 and 2), LBP-79-10, 9 NRC 439 (1979). On the basis of the discussion set forth in part II, supra, West Valley has demonstrated that the NRC conducted inadequate investigation of the matters at issue and that West Valley has assembled substantial factual and analytical information. For these reasons, consideration of West Valley's environmental concerns at the operating license stage is proper.

In addition, a review of Joint Applicants' Appendix II indicates that these environmental issues were raised again, albeit briefly, in the EIS at the operating license stage. Id. at 40-42. Accordingly, West Valley may properly raise contentions relating to these issues.

CONCLUSION

For all of the above reasons, West Valley respectfully submits that its Petition to Intervene should be granted and that the Board should grant such additional relief as may be required.

Respectfully submitted,

Dated: Nov 15 1982

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	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of SUPPLEMENTAL MEMORANDUM IN SUPPORT OF THE PETITION OF WEST VALLEY AGRICULTURAL COUNCIL, INC. TO INTERVENE IN LICENSING PROCEEDINGS in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class or, as indicated by an asterisk, through delivery by hand, this 19th day of November, 1982.

Robert M. Lazo, Esq., Chairman*
Administrative Judge
Atomic Safety & Licensing Board
U.S. Nuclear Regulatory Comm.
Washington, D.C. 20555

Dr. Richard F. Cole*
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