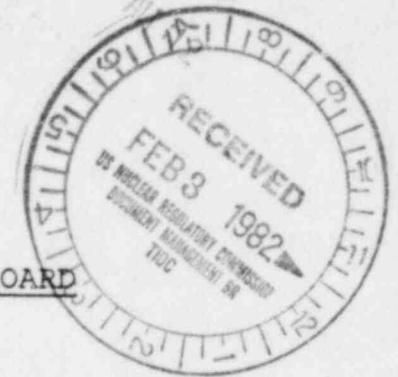


UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



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

JOINT APPLICANTS' MOTION FOR
SUMMARY DISPOSITION OF
INTERVENOR'S CONTENTION NO. 7

INTRODUCTION

Joint Applicants Arizona Public Service Company, Salt River Project Agricultural Improvement and Power District, Southern California Edison Company, El Paso Electric Company, and Public Service Company of New Mexico (collectively "Joint Applicants") hereby move for summary disposition of Intervenor Patricia Lee Hourihan's ("Intervenor") Contention No. 7 pursuant to 10 C.F.R. §2.749. Joint Applicants submit that the attached affidavit and supporting documents demonstrate that there are no factual issues requiring adjudication and that dismissal of Intervenor's Contention No. 7 is warranted as a matter of law. A discussion of the operative legal principles underlying summary disposition follows.

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SUMMARY DISPOSITION PROCEDURES

The Commission's regulations provide that summary disposition of all or any part of the matters at issue can be obtained "if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law." 10 C.F.R. §2.749(d).

The use of summary disposition has been encouraged by the Commission and the Appeal Board to resolve issues where the proponent of the issue has failed to establish the existence of a genuine issue. See, e.g., *Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 457 (1981); *Northern States Power Co. (Prairie Island Nuclear Generating Station, Units 1 and 2)*, CLI-73-12, RAI-73-4 241, 242 (1973), *aff'd sub nom. BPI v. Atomic Energy Commission*, 502 F.2d 424 (D.C. Cir. 1974); *Houston Lighting and Power Company (Allens Creek Nuclear Generating Station, Unit 1)*, ALAB-590, 11 NRC 542, 550-51 (1980). All material facts set forth in the statement of material facts which accompanies a motion for summary disposition are deemed to be admitted unless controverted by the opposing party. 10 C.F.R. §2.749(a); *Pennsylvania Power & Light Company, et al. (Susquehanna Steam Electric Station, Units 1*

and 2), LBP-81-8, 13 NRC 335, 337 (1981). "[A] party opposing the motion may not rest upon mere allegations or denial of his answers; his answer by affidavits or as otherwise provided in [10 C.F.R. §2.749] must set forth specific facts showing that there is a genuine issue of fact." 10 C.F.R. §2.749(b); see *Virginia Electric and Power Company* (North Anna Nuclear Power Station, Units 1 and 2), ALAB-584, 11 NRC 451, 453 (1980).

In light of these principles, and for the reasons set forth below, Joint Applicants request the Board to grant summary disposition of Intervenor's Contention No. 7. If the Board is unable to grant summary disposition of this contention in its entirety, summary disposition should be granted on any portions of such contention as to which there is no genuine issue of material fact. See 10 C.F.R. §2.749(a); *Public Service Company of Oklahoma, et al.* (Black Fox Station, Units 1 and 2), LBP-77-46, 6 NRC 167 (1977).

STATEMENT OF MATERIAL FACTS AS TO WHICH THERE IS NO GENUINE ISSUE

1. Contention No. 7 reads as follows:

"The Applicants have failed to demonstrate their financial qualifications as required by 10 C.F.R. §50.33(f) and 10 C.F.R. Part 50, Appendix C, because they have inadequately figured decommissioning costs."

2. The term "decommissioning" may be defined for a nuclear facility as "the measures taken at the end of the facility's operating life to assure the continued protection of the public from any residual radioactivity or other potential hazards present in the facility." R. I. Smith, G. J. Konzek, W. E. Kennedy, Jr., *Technology, Safety and Costs of Decommissioning a Reference Pressurized Water Reactor Power Station*, NUREG/CR-0130, Vol. 1, at 1-1 (June 1978) (hereinafter cited as the "PNL Study").

3. Through 1981 at least fourteen (14) reactors with power ratings greater than 10 MW(t) have been decommissioned. Affidavit of Albert A. Weinstein (attached).

4. The most commonly recognized decommissioning alternatives are immediate dismantlement, safe storage and entombment. Immediate dismantlement refers to the dismantlement of the facility at the end of its operating life resulting in unrestricted access to the site. Safe storage refers to the mothballing of the facility for a period of time by putting it in protective storage after all fuel and radioactive fluids and waste have been removed from the site. Entombment refers to the sealing off of the facility in a manner which provides structural integrity for such period as significant quantities of radioactivity remain with the material in the entombment. Affidavit of Albert A. Weinstein (attached).

5. Joint Applicants have not yet decided on a particular mode of decommissioning for the Palo Verde Nuclear Generating Station ("PVNGS"). Affidavit of Albert A. Weinstein (attached).

6. For purposes of developing a cost estimate for decommissioning, Joint Applicants assumed that the method of immediate dismantlement would be used. Affidavit of Albert A. Weinstein (attached).

7. The decommissioning cost estimate for PVNGS was prepared by The S. M. Stoller Corporation in 1979. The 1979 study (copy attached) was a comprehensive update of an earlier study prepared in 1975. Affidavit of Albert A. Weinstein (attached).

8. The following ground rules governed preparation of the estimate in 1979:

(a) Plant data was taken primarily from the Combustion Engineering Standard Safety Analysis Report, from the PVNGS Preliminary Safety Analysis Report, and from data provided by Arizona Public Service Company. In a few cases where detailed data was not readily available, an estimate was made based on data from similar units.

(b) Essentially all costs were based either on data from the decommissioning of the Elk River and BONUS reactors or on data from the PNL Study

performed by Batelle Pacific Northwest Labs ("PNL"). Where the data resulted in different costs for a task, the more realistic value was used.*

(c) Costs were estimated from the Elk River experience by extrapolating the Elk River costs based on a ratio of weights or volumes as appropriate.

(d) Costs were estimated from the PNL study by using the methodology of that report and the plant data for the PVNGS units.

Affidavit of Albert A. Weinstein (attached).

9. The decommissioning method for Elk River was immediate dismantlement. Decommissioning of the BONUS reactor was by entombment. The PNL Study provided estimates for both immediate dismantlement and safe storage. An addendum to the PNL Study which considered decommissioning by entomb-

*For example, for the PNL Study, the projected cost for demolition and removal of all structures at the reference nuclear power plant site was \$7 million. This estimate included the demolition of a large hyperbolic natural draft cooling tower. The wrecking contractor estimated this part of the demolition job at \$2.7 million. The PVNGS units, however, will utilize much smaller mechanical draft cooling towers which, according to the estimates made by extrapolating the Elk River numbers, should cost less than \$1 million to remove. Adjusting the PNL estimate to allow for this design difference between PVNGS and the reference nuclear power plant, the estimate for PVNGS for demolition of the non-radioactive structures is \$5.1 million.

ment was published in August 1979. Affidavit of Albert A. Weinstein (attached).

10. The PNL Study was performed for the Trojan Nuclear Plant, an 1175 MW(e) pressurized water reactor, as a reference reactor power plant. Using this nuclear steam supply configuration in conjunction with a generic site and structures, systems and components typical of the current generation of large pressurized water reactor power stations, PNL developed a set of work plans for the decommissioning by immediate dismantlement of this station. The choices of plans and techniques made in the study were predicated on the utilization of demonstrated methods for decontamination and dismantlement and on the provision of an appropriate level of safety to the public and the decommissioning workers. The realistic bases and the level of detail applied in the PNL Study make it a definitive evaluation of decommissioning costs. Affidavit of Albert A. Weinstein (attached).

11. The basic methodology used in the cost estimate for PVNGS was to divide the dismantlement operation into six discrete tasks and to develop a cost estimate for each task. The tasks used in the PVNGS study generally conform to the task definitions for the Elk River decommissioning and the PNL Study. Affidavit of Albert A. Weinstein (attached).

12. The six discrete tasks analyzed for PVNGS, and their respective estimates in 1979 dollars for each unit, are as follows:

<u>TASK</u>	<u>\$ (MILLIONS)</u>
(a) Site and facility preparation.	6.1
(b) Removal and shipment of spent fuel.	1.2
(c) Decontamination.	1.5
(d) Removal of nuclear and containment system components.	19.4
(e) Shipment and burial of radioactive wastes.	10.1
(f) Demolition	5.1
	<hr/>
Subtotal	43.4
CONTINGENCIES	<hr/> 13.3
TOTAL	56.7

Affidavit of Albert A. Weinstein (attached).

13. The nominal net power output of each Palo Verde unit is 1270 MW(e). Affidavit of Albert A. Weinstein (attached).

14. The 22.5 MW(e) Elk River reactor was decommissioned in 1974 at a cost of \$6,075,000. Affidavit of Albert A. Weinstein (attached).

15. As noted previously herein, the PNL Study was performed for a 1175 MW(e) pressurized water reactor. The PNL Study resulted in an estimated cost for immediate dismantlement, including a contingency allowancy of 25%, of \$42

million in 1978 dollars. Affidavit of Albert A. Weinstein (attached).

16. It is Intervenor's position that Joint Applicants' cost estimate for the decommissioning of PVNGS of \$56.7 million per unit is too low based on a comparison of such estimate to decommissioning estimates prepared by General Public Utilities Services Corp. for TMI Unit 1 (\$118 million) and Northeast Utilities for Millstone Unit 3 (\$264 million). "Intervenors Answers to Applicant's First Set of Interrogatories," dated June 26, 1981, Answers to Interrogatories Nos. 44 and 45 (attached). [Interrogatories Nos. 42 to 56 of "Joint Applicants' First Set of Interrogatories and Requests for Production of Documents to Intervenor," dated May 22, 1981, are also attached.]

17. Intervenor's references for the cost estimates for TMI Unit 1 and Millstone Unit 3 are reports by Accountants for the Public Interest, *An Analysis of Decommissioning and Premature Shutdown Costs of Nuclear Power Plants* (August 1, 1980) (the "API Report"), at page 35, and Richard Hubbard, *Nuclear Power Plant Decommissioning, Draft* (August 31, 1979) (the "Hubbard Report"), at page 20, respectively. "Intervenors Answers to Applicant's Second Set of Interrogatories" (undated), Answer to Interrogatory No. 33 (attached). [Interrogatories Nos. 28 to 35 of "Joint Applicants' Second Set of Interrogatories and Requests for

Production of Documents to Intervenor," dated July 21, 1981, are also attached.]

18. With respect to Intervenor's reference for the TMI Unit 1 estimate, the API Report at page 35 states that in a proceeding before the Pennsylvania Utility Commission, W. A. Verrochi testified that the estimate for dismantling TMI Unit 1 was \$117.5 million in 1974 dollars. However, no further information is presented in the API Report respecting the estimate for TMI Unit 1. Affidavit of Albert A. Weinstein (attached).

19. The Hubbard Report at page 13 also refers to the testimony of W. A. Verrochi of General Public Utilities ("GPU") before the Pennsylvania Public Utility Commission respecting the decommissioning cost estimate for TMI Unit 1 of \$117.5 million in 1974 dollars. Furthermore, Mr. Hubbard includes in his report at page 14 a breakdown of such estimate. Affidavit of Albert A. Weinstein (attached).

20. Examination of the GPU estimate as set forth at page 14 of the Hubbard Report discloses that \$50 million, or approximately 50% of the total cost estimate exclusive of contingency, was estimated for the dismantling of buildings, cooling towers, structures, tanks and site restoration. In the PNL Study, which is the most detailed estimate of decommissioning yet done for a pressurized water reactor, the estimate for essentially the same scope of work is \$7 million, or approximately 19% of the total cost. Other de-

commissioning studies generally indicate that facility demolition costs do not exceed about 25% of the total decommissioning cost estimate. The estimate for demolition of buildings and structures in the TMI Unit 1 estimate as set forth in the Hubbard Report is thus much greater than the usual allocation for such work. Affidavit of Albert A. Weinstein (attached).

21. With respect to Intervenor's reference for the Millstone Unit 3 estimate, an examination of the Hubbard Report at page 20 discloses that, according to Mr. Hubbard, Northeast Utilities conducted a decommissioning study for Millstone Unit 3 which included consideration of local property taxes. Mr. Hubbard states that for Millstone Unit 3, where the decommissioning method assumed was mothballing with delayed removal, the estimate for property tax costs which would be incurred during the 50 year period before the site would be returned to its original state was \$264 million. The figure of \$264 million for Millstone Unit 3 referenced by Intervenor is thus not a decommissioning cost estimate, but rather an estimate of local property taxes where the decommissioning method assumed was mothballing with delayed removal. The matter of local property taxes is not applicable where the decommissioning method assumed is immediate dismantlement. Affidavit of Albert A. Weinstein (attached).

22. It is Intervenor's position that the methodology employed by The S. M. Stoller Corporation in preparation of the decommissioning cost estimate for PVNGS is inadequate based on the API Report and the Hubbard Report. "Intervenors Answers to Applicant's Second Set of Interrogatories" (undated), Answers to Interrogatories Nos. 29 and 30 (attached).

23. The API Report does not provide a methodology for computation of a decommissioning cost estimate for a nuclear power plant. The authors of the API Report make no attempt to estimate the decommissioning costs of a nuclear power plant. The API Report does set forth several factors which could potentially impact the useful life of a nuclear facility, and, accordingly, could affect the time when a facility is decommissioned. Consideration of these factors, however, would not affect the decommissioning cost estimate for PVNGS. Affidavit of Albert A. Weinstein (attached).

24. The Hubbard Report does not provide a methodology for computation of a decommissioning cost estimate for a nuclear power plant. Furthermore, Mr. Hubbard makes no attempt to estimate the decommissioning costs of a nuclear power plant. The Hubbard Report does provide a review of several decommissioning cost studies, and, as to a study performed by the Atomic Industrial Forum in 1975, makes certain adjustments to such study to allow for escalation, con-

tingencies, and site specific features. Affidavit of Albert A. Weinstein (attached).

25. The cost estimate for PVNGS is expressed in 1979 dollars, is site specific, and contains a contingency allowance. Affidavit of Albert A. Weinstein (attached).

26. The Commission published in the *Federal Register* on August 18, 1981, a proposed rule (attached) which would either (a) eliminate entirely the Commission's requirements for financial qualifications review and findings for operating license applicants, or (b) retain such requirements for operating license applicants to the extent they require submission of information concerning decommissioning costs. 46 Fed. Reg. 41786-91 (August 18, 1981).

DISCUSSION

Intervenor has alleged in Contention No. 7 that Joint Applicants have not demonstrated their financial qualifications as required by the Commission's regulations because they have inadequately figured decommissioning costs. It is important to recognize the limited scope of Contention No. 7. Intervenor is not challenging Joint Applicants' financial qualifications to operate and maintain PVNGS. Intervenor is also not challenging Joint Applicants' ability to finance the decommissioning cost of PVNGS if such cost is taken to be the estimate made by Joint Applicants. As set forth in the Statement of Facts herein, Intervenor is simply alleging that Joint Applicants have underestimated

decommissioning costs and that the methodology employed by Joint Applicants is inadequate.

Joint Applicants submit, based on the facts set forth herein, that the methodology employed and the estimate obtained in the decommissioning cost study for PVNGS are reasonable, and that the reports and studies cited by Intervenor in support of her allegation do not show otherwise. The affidavit attached hereto substantiates (i) that the decommissioning tasks identified in the study for PVNGS generally conform to the actual task definitions for the Elk River decommissioning and to the task definitions provided in the PNL Study, (ii) that the PNL Study is the definitive work in the area of decommissioning cost studies, and (iii) that the estimate made for PVNGS is higher than the estimate from the PNL Study. Even if the PVNGS and PNL Study estimates are compared on a dollars per MW(e) basis, the estimate for PVNGS is higher.

As to the reports and studies cited by Intervenor, the attached affidavit shows (i) that neither the API Report nor the Hubbard Report sets forth a methodology for computation of a decommissioning cost estimate, (ii) that neither the authors of the API Report nor Mr. Hubbard attempts to estimate the decommissioning costs of a nuclear power plant, (iii) that the decommissioning cost estimate for TMI Unit 1 as set forth in the Hubbard Report includes an estimate for the dismantlement of certain structures which is approxi-

mately seven (7) times as large as the estimate set forth in the PNL Study for the dismantlement of similar structures, and (iv) that the figure for Millstone Unit 3 of \$264 million as referenced in the Hubbard Report is inapplicable for comparison to PVNGS because it is not a decommissioning cost estimate, but rather is an estimate of local property taxes where the decommissioning method assumed was mothballing with delayed removal.

In further support of Joint Applicants' position that this Board should adopt Joint Applicants' decommissioning estimate, it is noted that the Commission's regulations do not require that decommissioning cost estimates be determined with precision. As noted by the licensing board in *Northern Indiana Public Service Company* (Bailly Generating Station, Unit 1), LBP-74-19, RAI-74-4 557 (1974), in the context of a contention challenging the accuracy of an estimate of the costs of decommissioning:

"The cost of dismantling . . . appears to be in the range of economic feasibility. The Board is also of the opinion that absolute quantification cannot be expected where the anticipated event will not occur until a substantial time in the future (probably 30 or 40 years from now in the Bailly situation), and where changing technology may influence the methods and costs for decommissioning." *Id.* at 614.

Even if it is determined in the years ahead that the decommissioning cost estimate for PVNGS should be revised upward, such adjustment should not present a financing prob-

lem for Joint Applicants. Rate-regulating agencies have traditionally recognized that the cost of decommissioning is a recoverable cost of providing electricity. See generally *Connecticut Light and Power Company v. Public Utilities Control Authority*, 405 A.2d 638, 651 (Conn. 1978); *Duke Power Company (William B. McGuire Nuclear Station, Units 1 and 2)*, LBP-79-13, 9 NRC 489, 527-28 (1979); *Virginia Electric and Power Company (North Anna Nuclear Power Station, Units 1 and 2)*, LBP-77-68, 6 NRC 1127, 1162 (1977). The Commission has in fact recognized such ratemaking treatment by publishing a proposed rule on financial qualifications review which, in one of two options for the operating license stage, would eliminate completely the requirements for financial qualifications review and findings. The basis for the proposal is simply that the legal requirements imposed on public utility commissions, as articulated in decisions such as *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591 (1944), constitute the reasonable assurance required by the Commission's regulations that the licensee will be able to recover the reasonable costs associated with decommissioning.

CONCLUSION

Based on the material facts set forth in Paragraphs Nos. 1-26 above, and the supporting affidavit and other documents attached to this motion, Joint Applicants contend that no material issue of fact remains and holding

of an evidentiary hearing on Contention No. 7 would serve no useful purpose. Joint Applicants maintain that the facts demonstrate that the decommissioning cost estimate for PVNGS is reasonable and adequate for purposes of the Commission's regulations.

WHEREFORE, Joint Applicants move this Board for an order granting summary disposition in Joint Applicants' favor on Intervenor's Contention No. 7.

RESPECTFULLY SUBMITTED,

By Charles A. Bischoff
Arthur C. Gehr
Charles A. Bischoff
3100 Valley Bank Center
Phoenix, Arizona 85073
Attorneys for Joint
Applicants

Dated: January 29, 1982

LIST OF ATTACHMENTS

1. Affidavit of Albert A. Weinstein on Contention No. 7, dated January 28, 1982.
2. The S. M. Stoller Corporation, Update of Estimated Costs for Decommissioning One of the Palo Verde Nuclear Generating Station (PVNGS) Units, dated October 3, 1979.
3. Intervenors Answers to Applicant's First Set of Interrogatories, dated June 26, 1981. Answers to Interrogatories Nos. 42 through 56.
4. Joint Applicants' First Set of Interrogatories and Requests for Production of Documents to Intervenor, dated May 22, 1981. Answers to Interrogatories Nos. 42 through 56.
5. Intervenors Answers to Applicant's Second Set of Interrogatories, undated. Answers to Interrogatories Nos. 28 through 35.
6. Joint Applicants' Second Set of Interrogatories and Requests for Production of Documents to Intervenor, dated July 21, 1981. Answers to Interrogatories Nos. 28 through 35.
7. U.S. Nuclear Regulatory Commission, Financial Qualifications; Domestic Licensing of Production and Utilization Facilities, Proposed Rule, 46 Federal Register 41786-41791 (August 18, 1981).