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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Dr. Robert M. Lazo, Chairman
Dr. Richard F. Cole
Dr. A. Dixon Callihan

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In the Matter of

ARIZONA PUBLIC SERVICE COMPANY, ET AL.

(Palo Verde Nuclear Generating Station,
Units 2 and 3 Operating License
Proceeding)

Docket Nos. STN-50-529-OL
STN-50-530-OL

ASLBP No. 80-447-01 OL

July 22, 1985

ORDER DISMISSING PROCEEDING

On July 25, 1980, the U.S. Nuclear Regulatory Commission published in the Federal Register a notice of receipt of an application for facility operating licenses for Palo Verde Nuclear Generating Station, Units 1, 2, and 3 and notice of opportunity for hearing (45 Fed. Reg. 49732). The July 25, 1980 notice is a clarification of an earlier notice published in the Federal Register on July 11, 1980 (45 Fed. Reg. 46941-43). Such licenses would authorize Arizona Public Service Company, Salt River Project Agricultural Improvement and Power District, Southern California Edison Company, El Paso Electric Company, Public Service Company of New Mexico, and the Southern California Public Power Authority ("Joint Applicants") to possess, use and operate Palo Verde Nuclear Generating Station, Units 1, 2 and 3, which are three

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pressurized water nuclear reactors (the "facilities") located on the Joint Applicants' site in Maricopa County, Arizona, approximately 36 miles west of the City of Phoenix.

In response to that notice, Ms. Patricia Lee Hourihan (hereinafter "Intervenor"), submitted a timely Petition for Leave to Intervene and Request for Hearing. The petition was granted by this Atomic Safety and Licensing Board (hereinafter "Board") which ordered that a hearing be held. The Board approved the admission of five of the Intervenor's contentions and allowed the Intervenor the opportunity to file additional contentions respecting emergency planning at such time as the emergency plans were prepared. Two of the five admitted contentions were subsequently withdrawn by the Intervenor, and two of the remaining admitted contentions were disposed of by the Board's Memorandum and Order, March 17, 1982, granting the motions for summary disposition filed by the Joint Applicants and the Staff of the Nuclear Regulatory Commission (hereinafter "NRC Staff"). The Intervenor submitted no emergency planning contentions.

An evidentiary hearing was conducted in April, May and June, 1982, by the Board on the remaining contention which placed in issue whether there is an assured supply of usable treated municipal effluent for all three Palo Verde units for the first five years of operation. At the onset of the hearing, the contention was expanded to include the questions of the effect on the supply of effluent of a lower quality

than expected and the relationship of the supply of effluent to the safety of the operation of the Palo Verde units. The evidentiary hearing on the Intervenor's expanded contention was closed on June 25, 1982.

On October 14, 1982, the West Valley Agricultural Protection Council, Inc. (hereinafter "West Valley") filed an untimely petition for leave to intervene a request for hearing. Such petition placed in issue (1) the effect of foliar depositions of salt from the drift emitted from the Palo Verde cooling towers and other potential sources of drift from Palo Verde on the productivity of agricultural crops grown in the vicinity of Palo Verde, and (2) the need for the preparation and distribution of a supplementary environmental statement by the NRC Staff to address the foregoing issue.

On December 30, 1982, the Board issued its Memorandum and Order (see LBP-82-117B, 16 NRC 2024 (1982)) granting the untimely petition and reopening the evidentiary record for the purpose of considering the environmental issue raised by West Valley -- viz., the asserted adverse impact that the salt deposition associated with the operation of the Palo Verde facilities will have upon the productivity of nearby agricultural lands cultivated by West Valley members. For reasons stated in that opinion, the Licensing Board confined the record reopening to Units 2 and 3 of the Palo Verde facilities. In a contemporaneously issued decision, the Licensing Board resolved in the

Joint Applicants' favor all issues previously raised by the Intervenor (Hourihan) with respect to all three Palo Verde units. Accordingly, the Licensing Board authorized the issuance of an operating license for Unit 1 alone. LBP-82-117A, 16 NRC 1964 (1982).

The issue of the impact of salt depositions on the productivity of nearby lands required consideration of five subsidiary questions:

1. The amount of drift which could reasonably be expected to be emitted from the Palo Verde cooling towers;
2. Predictions respecting the depositions from the drift in the area surrounding Palo Verde;
3. The effect of salt drift depositions on agricultural crops grown in the vicinity of Palo Verde;
4. Potential sources of drift emanating from Palo Verde in addition to the cooling towers; and
5. A suitable monitoring program to establish baseline data, to detect drift depositions and their effects on agricultural activities in the vicinity of Palo Verde.

To address the first three subsidiary questions the Joint Applicants undertook (1) to measure actual drift emissions from one of

the Palo Verde Units 1 cooling towers operated during the hot functional test of such unit, (2) to validate the predictive computer model used to estimate the distribution of drift depositions in the area surrounding Palo Verde when all three units are in operation, and (3) to engage the University of Arizona to assess the effects of salt drift depositions on agricultural crops grown in the vicinity of Palo Verde. Results of these efforts were published in reports which were distributed to the parties and the Board and incorporated as exhibits in the pre-filed testimony submitted by the Joint Applicants.

On May 1, 1985, the Licensing Board issued a "Notice of Public Hearing on Application for Operating Licenses for Palo Verde Units 2 and 3," which was published in the Federal Register on May 8, 1985 (50 Fed. Reg. 19500). The Licensing Board then appointed Administrative Judge James H. Carpenter to be a Technical Interrogator and informal assistant to the Board pursuant to 10 C.F.R. §§ 2.722(a)(1) and (b) in an order issued May 2, 1985.

Thereafter, on May 20, 1985, the Joint Applicants and West Valley entered into a Settlement Agreement, and West Valley filed a request for the withdrawal of its Petition to Intervene, its contentions and its request for a hearing and consented to the entry of an order dismissing this proceeding. Concurrently, the Joint Applicants requested that the Board dismiss the proceeding with prejudice.

In a conference call initiated by the Licensing Board on June 3, 1985, in which the NRC Staff, Joint Applicants and West Valley participated, the Board discussed the effect which a settlement reached between Joint Applicants and West Valley of the latter's concerns regarding salt deposition would have upon this operating license proceeding. While noting that West Valley had requested the withdrawal of its Petition to Intervene and all the contentions it had raised, the Licensing Board determined that it could not dismiss the proceeding at that time, but must hold a prehearing conference and preliminary hearing at which time the Board could question both the Joint Applicants' and the NRC Staff's witnesses concerning certain matters related to salt deposition from cooling tower drift and the agricultural monitoring plan that did not appear to have been resolved. The Licensing Board also indicated that it would inquire into five other matters: (1) Unresolved Safety Issue A-45 (shutdown decay heat removal requirements), (2) a petition filed pursuant to 10 C.F.R. § 2.206 relating to microbiologically-induced weld corrosion in the spray pond, (3) the necessity of preparing a supplement to the Final Environmental Statement, (4) the status of certain allegations, and (5) whether any agencies of the State of Arizona had comments regarding the Settlement Agreement.

The prehearing conference and preliminary hearing was convened on June 11, 1985. After receiving limited appearance statements from members of the public, the Licensing Board questioned West Valley,

concerning the terms of the Settlement Agreement. West Valley described the additional agricultural monitoring which Joint Applicants are required to perform under that agreement. This additional monitoring program will include (1) cotton square, bloom and boll counts, (2) insect population counts, (3) measurement of site specific temperature and humidity conditions, (4) yield determinations, and (5) analyses of the results of the additional monitoring on an annual basis. Such monitoring is in addition to the environmental monitoring program which Joint Applicants are required to conduct under the terms of the operating license for Palo Verde Unit 1.

With respect to the issue of the effects of salt deposition from cooling tower drift on agricultural crops in the vicinity of the facilities, the Licensing Board questioned, as a panel, the five witnesses who appeared on behalf of Joint Applicants, Drs. Goldman, Curtis, McCune, and Foster and Mr. Wilber, and the two witnesses for the NRC Staff, Drs. Pentecost and Samworth. Mr. Wilber testified regarding his measurements of the drift rates from the facilities' cooling towers. Dr. Goldman testified concerning (1) the validation of the FOG computer model used to predict drift deposition, (2) the prediction of drift deposition, (3) possible sources of drift other than the cooling towers, and (4) the salt drift monitoring program that forms part of the Environmental Protection Plan which is a requirement of the operating license for Palo Verde Unit 1. Drs. Curtis and McCune were questioned with respect to their critique of the assessment of salt drift effects

performed by the University of Arizona and sponsored by Joint Applicants. Dr. Foster of the University of Arizona, who participated in that assessment, was questioned on that subject.

The Licensing Board questioned Dr. Samworth regarding drift rates from the cooling towers and Dr. Pentecost concerning (1) the anticipated effect of salt drift on agricultural productivity, (2) predictions of salt deposition, and (3) the salt drift monitoring program. The prefiled written testimony, which had been submitted by all of the witnesses with the exception of Dr. Foster, was received into evidence, together with accompanying exhibits.

The testimony of the expert witnesses and other documentary materials made available to this Licensing Board establish there is little likelihood that the amount of drift emitted from the Palo Verde facilities will adversely affect crops grown in the vicinity of the facilities. Moreover, the agricultural monitoring program to which the Joint Applicants have committed will provide a basis for determining whether agricultural crops will be damaged by salts emitted from the facilities. If crop damage is detected, then Joint Applicants are required to report such damage and take appropriate action pursuant to the provisions of § 5.4.1 of the Palo Verde Nuclear Generating Station, Unit 1, Environmental Protection Plan, which provides that "... If harmful effects or evidence of trends toward irreversible damage to the environment are observed, the licensees shall provide a detailed

analysis of the data and a proposed course of action to alleviate the problem."

During the hearing held on June 12, 1985, the NRC Staff and Joint Applicants reported to the Licensing Board concerning the status of the five remaining matters which the Board had previously raised. None of those matters requires any further action by this Board.

With regard to Unresolved Safety Issue, USI A-45, counsel for the Joint Applicants reported that the matter had been considered by the Commission during the May 30, 1985 meeting concerning full power authorization for Palo Verde Unit 1. The transcript of that meeting records the fact that the Commission, the NRC Staff and the ACRS have agreed that the issue of installation of PORVs for Combustion Engineering plants will be dealt with through the resolution of Unresolved Safety Issue, USI A-45. The NRC Staff is still planning to have the issue ready for submittal to the Committee to Review Generic Requirements by the end of this year.

During the Commission meeting on May 30th, the NRC Staff also reported that it had reviewed the matter of weld corrosion in the spray ponds and were satisfied with the status of the corrective actions taken by the Joint Applicants. Mr. Licitra, Project Manager for the NRC Staff, provided the Board with a detailed oral description of microbiologically induced corrosion and Mr. Van Brunt, Joint Applicants'

Executive Vice-President, described the corrective actions taken. Such actions are detailed in a letter Mr. Van Brunt sent to the Commission on May 24, 1985.

With respect to the question of whether a supplement to the final environmental statement should be prepared, counsel for the NRC Staff and the Joint Applicants stated their position that, based upon the evidence received in the proceeding, there were no significant new circumstances or information regarding the possible effects from the deposition of salt drift from the cooling towers on agricultural crops grown in the vicinity of Palo Verde which necessitated the preparation and distribution of a supplement to the final environmental impact statement. The Board concurs in that position.

Counsel for the NRC Staff reviewed the status of investigations of various allegations that had come to the Board's attention and reported that of the 167 Palo Verde investigations which had been conducted, only 14 remain open. The Commission was apprised of these investigations during the May 30, 1985 meeting. Based upon assurances by NRC Staff members that the 14 remaining investigations would not adversely impact upon full power operation of Unit 1, the Commission permitted Unit 1 to be licensed.

In response to the Board's question regarding comments on the Settlement Agreement by any agencies of the State of Arizona, counsel

for the NRC Staff reported that there were two agencies which would have an interest in the matter of salt deposition. These are the State Land Commissioner's Office and the State Agricultural and Horticultural Commission. These agencies manage State trust and sovereign lands some of which are located within 5 miles of the Palo Verde facilities and are rented out for farming. Three hundred acres of such lands abut the eastern boundary of the plant. Both State agencies were contacted by Staff counsel who was told by each that they were satisfied with the settlement in this proceeding and had no adverse comments.

Based upon the Licensing Board's interrogation of the witnesses, the written testimony which was received into evidence, the Board's questioning of West Valley and the reports of Joint Applicants and the NRC Staff, the Licensing Board accepts West Valley's withdrawal of its petition to intervene and approves the Settlement Agreement reached with Joint Applicants. After careful consideration, the Board has concluded that the proceeding should be terminated and dismissed with prejudice.

ORDER

For the foregoing reasons and in consideration of the entire record in this matter, it is this 22nd day of July, 1985

ORDERED

The request to withdraw its Petition to Intervene filed by Intervenor, West Valley Agricultural Protection Council, Inc., in connection with the Settlement Agreement dated May 20, 1985, is GRANTED and the intervention petition is withdrawn. In as much as there are no other intervention petitions or requests for hearing in accordance with the Commission's notice of opportunity for hearing, the matter is uncontested, and the adjudicatory proceeding is therefore DISMISSED with prejudice.

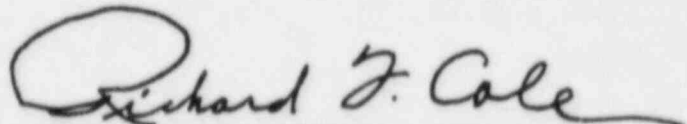
As stated in our Initial Decision authorizing the issuance of an operating license for Palo Verde Unit 1, all of the findings of fact and conclusions of law set forth in that decision apply with full force and effect to all three Palo Verde units, LBP-82-117A, 16 NRC 1964, 2022 (1982). Therefore, this Board hereby adopts and incorporates by reference in this Order all of the findings of fact and conclusions of law set forth in Initial Decision LBP-82-117A as if set forth herein in full.

It is further noted that because this operating license proceeding is now uncontested, the Director, Office of Nuclear Reactor Regulation, is authorized upon making requisite findings with respect to matters not embraced in this Order in accordance with the Commission's regulations,

to issue to Joint Applicants operating licenses for terms of not more than forty (40) years, authorizing operation of the Palo Verde Nuclear Generating Station, Units 2 and 3. Such licenses may be in such form and content as is consistent with the conclusions of the Board herein.

THE ATOMIC SAFETY AND
LICENSING BOARD


Robert M. Lazo, Chairman
ADMINISTRATIVE JUDGE


Richard F. Cole, Member
ADMINISTRATIVE JUDGE


A. Dixon Callihan, Member
ADMINISTRATIVE JUDGE

Dated at Bethesda, Maryland,
this 22nd day of July, 1985.