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July 08, 1994

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Supplement to Petition 10 C.F.R. 2.206 Dated May 27, 1994 Regarding Operations at the Arizona Public Service Company, Palo Verde Nuclear Generating Station; Docket Nos. 50-528, 50-529, and 50-530

Please take receipt of the enclosed supplement to our petition filed under 10 C.F.R. 2.206 dated May 27, 1994 requesting certain and specific actions be taken by the U.S. Nuclear Regulatory Commission ("NRC") against the Arizona Public Service Company ("APS") regarding operations of the Palo Verde Nuclear Generating Station.

Should you have any questions regarding this material, please contact us immediately.

We look forward to your prompt attention to this matter.

Very truly yours,

Thomas J. Saporito, Jr.
President and CEO

UNITED STATES OF AMERICA
BEFORE THE U.S. NUCLEAR REGULATORY COMMISSION

DATE: July 8, 1994
Docket Nos. 50-528; 50-529; 50-530

FLORIDA ENERGY CONSULTANTS, INC.,

Petitioners,

v.

ARIZONA PUBLIC SERVICE COMPANY/
ARIZONA NUCLEAR POWER PROJECT,

and;

PALO VERDE NUCLEAR GENERATING STATION,

Licensees.
_____/

SUPPLEMENT TO PETITION 10 C.F.R. 2.206 DATED MAY 27, 1994 REGARDING OPERATIONS AT THE ARIZONA PUBLIC SERVICE COMPANY/ ARIZONA NUCLEAR POWER PROJECT, PALO VERDE NUCLEAR GENERATING STATION

COMES NOW, Florida Energy Consultants, Inc. ("FEC") and Thomas J. Saporito, Jr. and Linda E. and Allan Mitchell, (hereinafter "Petitioners"), and hereby file a Supplement to Petition 10 C.F.R. 2.206 dated May 27, 1994 regarding operations at the Arizona Public Service Company/Arizona Nuclear Power Project ("APS/ANPP"), Palo Verde Nuclear Generating Station (hereinafter "Licensee") and request specific action by the U.S. Nuclear Regulatory Commission ("NRC") within a reasonable time directed towards the Licensee as follows:

Specific Request:

1. Petitioners request that the NRC institute a "show cause" proceeding pursuant to 10 C.F.R. 2.202 to modify, suspend, or revoke the Licensee's permissive

NRC operational licenses authorizing operation of 3-reactor cores at the Palo Verde station.

2. Petitioners request that the NRC institute a "show cause" proceeding pursuant to 10 C.F.R. 2.202 to modify the Licensee's permissive NRC operational licenses at the Palo Verde station requiring that the Licensee operate Palo Verde reactor units 1, 2 and 3 at 86% power or less.

3. Petitioners request that the NRC require the Licensee to submit a No Significant Hazards safety analysis to justify operation of Palo Verde units 1, 2 and 3 above 86% power.

4. Petitioners request that the NRC take immediate actions, (e.g. confirmatory order), to cause the Licensee to reduce operation of Palo Verde units 1, 2 and 3 to 86% power or less.

5. Petitioners request that the NRC require the Licensee to analyze the consequences of a design basis SGTR event to show that the offsite radiological consequences do not exceed a small fraction of the limits of 10 C.F.R. Part 100.

6. Petitioner request that the NRC require the Licensee to demonstrate that its emergency operating procedures for SGTR events are adequate and the plant operators are sufficiently trained in the use of these emergency operating procedures.

Basis and Justification:

1. On March 14, 1993, the Licensee's Unit-2 steam generator suffered a tube rupture which was located relatively high in the steam generator free span section specifically and most significantly between the tube supports.

2. A January, 1994 inspection of the Licensee's Unit-2 steam generator utilizing the pancake coil technique identified 85 axial indications in the free span area. The longest indication was found to be 7.5 inches in length.

3. As of May, 1994, 28 axial indications were found on Unit-2 and 9 axial indications were found on Unit-1. Moreover, these indications were found in the tube supports, the freespan and the 9th partial eggcrate support. Petitioners believe that more extensive testing will confirm existence of circumferential crack indications in the expansion transition area also.

4. May, 1994 sampling of Units 1 and 2 steam generator sludge indicate a lead content of 4000 - 6000 ppm which would accelerate the crevice corrosion cracking process in these units. Petitioners assert here that this level of lead content is unusually high and believed to be caused by a feedwater source deficiency at the Licensee's facilities.

5. The Licensee failed to properly implement operational procedures regarding the March 14, 1993 steam generator tube rupture event described above as follows:

(a) The Licensee did not classify the event in accordance with Emergency Plan Implementing Procedures as a result of the Reactor Coolant System inventory loss had exceeded the charging pump makeup capacity and the failure of the Licensee to properly log this occurrence into the EPIP checklist;

(b) The Licensee failed to activate the Emergency Operations Facility for the 1-hour goal time frame provided by operational procedures and, in fact, exceeded this time requirement;

(c) The Licensee failed to provide for the assembly and accountability completion pursuant to operational procedures within 30 minutes and to provide a list of personnel by name to the Emergency Coordinator;

(d) The Licensee failed to activate the Emergency Response Data System within 1 hour as required by 10 C.F.R. 50.72 and the Licensee's technical specifications;

(e) The Licensee failed to take prompt corrective actions to repair a condenser vacuum pump exhaust

radiation monitor which was found to be defective 1 week prior to the above described event and which said monitor could have assisted plant operators in evaluating the event;

(f) A Licensee employee failed to obtain required approvals prior to performing an alarm setpoint change on the Waste gas Area Combined Ventilation Exhaust monitor;

(g) A Licensee employee failed to fully implement an alarm response procedure requirements when notified of an alarming condition on the Main Steam Line Radiation monitor;

(h) The Licensee's security personnel failed to check the Owner Controlled Area at the time of accountability as required by procedure due to an insufficient security staff onsite during the occurrence of the above described event.

6. Petitioners assert here that a steam generator tube rupture is a safety significant event and the Licensee's failure to comply and follow approved operational procedures during this event are indicative of a problem plant and warrant NRC action as requested in this petition.

7. Petitioners assert here that the NRC is fully aware of additional Licensee weakness regarding the steam generator tube rupture event as described below:

(a) The Licensee's alert and alarm setpoints for the condenser vacuum pump exhaust and main steam line radiation monitors appear to have been based upon off-site dose limits rather than the ability to provide a reliable and timely indication of a SGTR event. See, NRC Information Notices 88-89 and 91-43;

(b) The Licensee's simulator's alarms occur within 2-3 minutes of a SGTR event differing from actual control room indications during the event and indicative of a negative training situation for plant operators;

(c) The Licensee's plant staff in Units 1 and 3 failed to fully respond to the assembly notification and inquired of their respective control rooms whether applicability pertained to them;

(d) The Licensee failed to perform a formal evaluation of the safety significance of an abnormal crack growth in the Unit 2 steam generator;

8. Petitioners assert here that the Licensee cannot assure that the radiation dose limits are satisfied for applicable postulated accidents with appropriate levels of steam generator tube assumed to date. Therefore, the actions requested of the NRC in this petition should be granted.

9. Petitioners assert here that the offsite dose limits will be exceeded during a steam generator tube rupture accident and that an adequate level of protection to the public would not be maintained by the Licensee.

10. Petitioners assert here that the Licensee cannot demonstrate that a Pressurized Water Reactor at Palo Verde can be safely shut down and depressurized in order to stop steam generator tube leakage prior to a loss of Reactor Water Storage Tank inventory.

11. Petitioner assert here that the very thin walled steam generator tubes are an integral part of the reactor coolant pressure boundary. Thus, tube failures could lead to a loss of primary coolant, which provides core cooling, and result in containment bypass and the escape of radioactive fission products **directly** into the environment. Steam generator tube rupture events must be carefully considered by the NRC and the Licensee because they are complex events which pose an undesirable challenge to the Palo Verde safety systems and plant operators.

12. Petitioners assert here that NRC requirements under the general design criteria of Appendix A to 10 C.F.R. Part 50 establish the fundamental requirements for steam generator tube integrity. These requirements provide that the reactor coolant system boundary shall **have an extremely low probability of abnormal leakage**, shall **be**

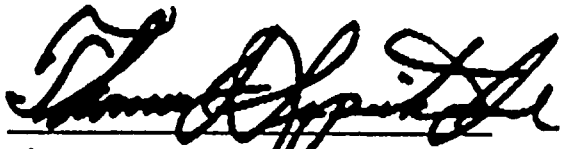
designed with sufficient margin, shall be of the highest quality standards practical, and shall be designed to permit periodic inspection ant testing to assess structural and leak tight integrity.

13 Petitioners assert here that the Licensee cannot demonstrate compliance with NRC requirements as describe above in item #12. Additionally, Petitioners assert here that the Licensee has failed to comply with NRC requirements under NUREG-0800 insofar as the Licensee is required to analyze the consequences of a design basis SGTR event to show that the offsite conditions and single failure do not exceed a small fraction of the limits of 10 C.F.R. Part 100.

14 Petitioners assert here that the Licensee's recent actions in bringing all 3 reactor cores at the Palo Verde station to a level of power above 86% poses an unacceptable risk to public health and safety due to the severe degradation of the steam generator tubes at that station.

WHEREFORE, the above stated reasons, the Licensee cannot demonstrate to the NRC reasonable assurance for the continued safe operation of the Palo Verde Nuclear Generating Station at power levels above 86%. Accordingly, it is appropriate for the NRC to consider this petition under 10 C.F.R. 2.206 wherein the Petitioners have set forth the facts that constitute the basis for the request. see, Philadelphia Electric Company (Limerick Generating Station, Units 1 & 2), DD 85-11, 22 NRC 149, 154 (1985).

Respectfully submitted,



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