UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

May 26, 2005

Mr. Gregg R. Overbeck, Senior Vice
President, Nuclear
Arizona Public Service Company
P.O. Box 52034
Phoenix, AZ 85072-2034

SUBJECT: REQUEST FOR WITHHOLDING INFORMATION FROM PUBLIC DISCLOSURE (PALO VERDE NUCLEAR GENERATING STATION, DOCKET NOS. 50-528, 50-529, 50-530)

Dear Mr. Overbeck:

Arizona Public Service (APS) Company's letter (102-05195-GRO/DGM/RAS) and affidavit dated December 27, 2004, submitted information regarding recirculation sump void testing and preliminary results from a probabilistic risk assessment. In this letter, APS requested that the information in Enclosure 2 to the letter related to special pump tests and a risk evaluation based on the test results be withheld from public disclosure pursuant to 10 CFR 2.390. At the request of the NRC staff, APS provided a redacted version of this submittal (letter 102-5208-SAB/GAM) on February 4, 2005, that was suitable for public release. The redacted version of your submittal was subsequently posted on the NRC's public website (ADAMS accession number ML050450353).

Your affidavit that was enclosed with your letter of December 27, 2004, stated that the preliminary safety significance evaluation of emergency core cooling system containment sump voided piping constitutes proprietary commercial information that should be held in confidence from regulatory agencies of other countries and from the public by the NRC pursuant to the policy reflected in 10 CFR 2.390(a)(4) and 9.17(a)(4), because:

1. The information sought to be withheld from public disclosure is owned and has been held in confidence by APS and associated companies who participated in developing this information for APS.

2. This information is of a type that is customarily held in confidence by APS, and there is a rational basis for doing so because the information contains the proprietary confidential intellectual property of APS.

3. The information is being transmitted to the NRC in confidence.

4. The information is not available in public sources or available information has not been previously employed in the same original manner or method to the best of your knowledge and belief.

5. Public disclosure of this information would create substantial harm to the competitive position of APS by disclosure of APS' proprietary confidential intellectual property. Disclosure of this information to regulatory agencies in other countries would also create substantial harm to the competitive position of APS by disclosing information to governments with ownership and interest in competitors.

We have carefully reviewed both your original December 27, 2004, letter and the February 4, 2005, redacted letter and the information contained in your request. We have concluded that some of the material that was redacted may be withheld in accordance with 10 CFR 2.390, but that certain other material should be released and placed in the Public Document Room (PDR). Attachment 1 to this letter details that information which we do not believe meets the criteria of 10 CFR 2.390(a) for public withholding. The attachment provides an explanation for each item that we believe should be released to the public that you originally characterized as proprietary and redacted from your February 4, 2005, submittal.

In accordance with 10 CFR 2.390(c)(2), this information is being forwarded to you as notice that the information will be placed in the Public Document Room fifteen (15) days from the date of this letter. If within fifteen (15) days of this letter, you provide additional reasons why this information should not be released, the NRC will withhold release pending review of your request. The NRC will consider your request in light of the applicable statues and regulations and will advise you prior to taking any further action.

Withholding from public inspection shall not affect the right, if any, of persons properly and directly concerned to inspect the document. If the need arises, we may send copies of this information to our consultants working in this area. We will, of course, ensure that the consultants have signed the appropriate agreements for handling proprietary information.

If the basis for withholding this information from public inspection should change in the future such that the information could then be made available for public inspection, you should promptly notify the NRC. You also should understand that the NRC may have cause to review this determination in the future, for example, if the scope of a Freedom of Information Act request includes your information. In all review situations, if the NRC makes a determination adverse to the above, you will be notified in advance of any public disclosure.

Sincerely,

**/RA/**

Troy Pruett, Chief
Project Branch D
Division of Reactor Projects

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SISP Review Completed: _TWP___ ADAMS: / Yes ☐ No Initials: __TWP_
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R:_PV\2005\Proprietary Letter 12-27-04.wpd

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Attachment

From Enclosure 2 - Information Listed as Proprietary

Page 5:

"A series of thermal hydraulic analyses of the Palo Verde Reactor Coolant System and Containment were performed using the Westinghouse CENTS code and the [ ] code. These analyses established the expected reactor coolant and containment environment conditions that would exist at the time of RAS for a spectrum of LOCA break sizes. Operator actions, as prescribed in the Palo Verde Emergency Operating Procedures (EOPs), to initiate a cool down and depressurize the RCS upon diagnoses of a LOCA were explicitly considered in the analyses. In this way, best-estimate parameters such as RCS and containment pressures at time of RAS were established."

With the exception of [ ], no proprietary information was found in this statement. This is a general description of the analysis and contains no specific information that would benefit a competitor.

Page 7:

"....Dr. M. Ishii of Purdue University, an expert in two-phase modeling and experiments,"

This statement does not contain proprietary information and Dr. Ishii's background and his expertise were discussed at the Regulatory/Enforcement Conference attended by members of the public.

Page 9:

Figure and "Figure 2-1 Phase 2 Test Arrangement"

This figure was shown during the Regulatory/Enforcement Conference in which members of the public attended.

Page 17:

"....injected...."

This one word in conjunction with what remains is not proprietary information.

Page 20 and 21:

"The eight-stage HPSI pump demonstrated a very high tolerance for air ingestion. This is consistent with the limited data in the literature regarding multi-stage pumps under air ingestion conditions. The following figure (Figure 3-7) is a reproduction of Figure 3-8 from NUREG/CR-2792. As reported in the NUREG, performance degradation for a multi-stage pump is much less pronounced. The author of the test report cited in the NUREG (Reference 32 of the NUREG) attributes this to the fact that air is raised to a higher pressure (i.e. compressed) at each stage and has less effect on the performance of the next stage."

Figure and "Figure 3-7 influence of Number of Stage on Performance Degradation (from NUREG/CR-2792)"

The statement is not proprietary since it is based on publically available information, NUREG/CR-2792 is publically available.

Page 22:

"....the Westinghouse CENTS code and the [ ] code.....the expected reactor coolant system and containment environment....such as RCS and containment pressures..."

This information contained within the first paragraph described the general methodology for their analysis and contains no proprietary information. In addition, Figure 4-1, which is not marked as proprietary, on the same page, contains much of this information.

Page 23:

"....construct system resistance curves and...."

"Considering the RCS pressure at RAS for the various break sizes described in Figure 4-1, system resistance curves can then be developed using the following relationship:

$$TDH = 144/\rho(P_{RCS} - P_{CONT}) + (Z_{RCS} - Z_{SUMP}) + CsysQ^2$$

[ ]. The elevation of the RCS is assumed to be the centerline of the cold legs at [ ]. The elevation of the sump is taken as the minimum flood level elevation of [ ]. Containment pressure is assumed to be equal to be [ ]. The system resistance curves are then developed as shown in Figure 4-2."

This information is general engineering knowledge and as such is not proprietary.

Page 24:

"....and the system resistance curves developed above,..."

This contains no proprietary information. The description of the test, contained on this page, describes the above statement and how pump performance was evaluated.