Palo Verde Nuclear
Generating Station

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10 CFR 50.54(f)

102-04703-GRO/SAB/RJR
May 17, 2002

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-37
11555 Rockville Pike
Rockville, MD. 20852

References
1. Letter 102-04603-CDM/SAB/RJR, "Response to NRC Bulletin 2001-01: Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles," dated September 4, 2001, from Gregg R. Overbeck, APS to USNRC.

2. Letter 102-04628-GRO/SAB/RJR, "Revised Inspection Schedule in Response to NRC Bulletin 2001-01," dated December 6, 2001, from Gregg R. Overbeck, APS to USNRC.

3. Letter 102-04681-GRO/SAB/RJR, "Response to Bulletin 2002-01: Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity," dated April 03, 2002, from Gregg R. Overbeck, APS to USNRC.

Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Docket Nos. STN 50-528/529/530
APS' Response to Information Requested by NRC Bulletin 2001-01, Items 4a, 5a, and 5b, and NRC Bulletin 2002-01, Items 2.A and 2.B

By letters dated August 3, 2001, and March 18, 2002, the U.S. Nuclear Regulatory Commission (NRC) issued Bulletins 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles" and 2002-01 "Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity". These bulletins required licensees to provide the results of their reactor pressure vessel head inspections within 30 days after plant startup. On April 17, 2002, Arizona Public Service Company (APS) completed Unit 2's 10th refueling outage. In accordance with 10 CFR 50.54(f), Enclosure 1 provides the information requested by NRC Bulletin 2001-01, Items 4a, 5a, and 5b and the information requested by NRC Bulletin 2002-01, Items 2.A and 2.B.

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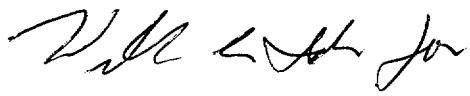
During the performance to the reactor vessel head examinations, APS and the NRC discussed the qualification methods for the inspection techniques being used at Palo Verde. The NRC requested that a copy of the qualification report be submitted with this response. Attachments 1 and 2 to Enclosure 2 contain the technical reports of the examination methodologies used during the Unit 2 nozzle inspections as requested by the NRC. Please note the information that is provided in Enclosure 2, Attachments 1 and 2 is proprietary commercial information. An Affidavit in support of the request that this information be withheld from public disclosure pursuant to 10 CFR 2.790(b)(1) is provided as Enclosure 2.

The following commitments are being made to the NRC by this letter.

APS will perform reactor vessel head penetration examinations similar to those completed in Unit 2 and described in Reference 3 during the next scheduled refueling outages for Unit 1 (fall of 2002) and Unit 3 (spring of 2003).

Should you have any questions, please contact Thomas N. Weber at (623) 393-5764.

Sincerely,



GRO/SAB/RJR/

Enclosure 1: APS' Response to Information Requested by NRC Bulletin 2001-01, Items 4a, 5a, and 5b, and NRC Bulletin 2002-01, Items 2.A and 2.B

Enclosure 2: Application Requesting Information be Withheld From Public Disclosure

Attachment 1: Demonstration of Volumetric Ultrasonic Inspection of CEDM Nozzles Using the Open Housing Scanner, dated May 15, 2002

Attachment 2: Technical Justification for Eddy Current Testing of J-Groove Welds at CRDM Penetrations Using Procedure ISI-ET-001; "Eddy Current Inspection of J-Groove Welds in Vessel Head Penetrations" and WesDyne Procedure WDI-ET-002; "IntraSpect Eddy Current Inspection of J-Groove welds in Vessel Head Penetrations"

cc:
E. W. Merschoff (NRC Region IV)
J. N. Donohew (NRR Project Manager)
J. H. Moorman (NRC Resident Inspector)

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I, William E. Ide, represent that I am Vice President Nuclear Production, Arizona Public Service Company (APS), that the foregoing document has been signed by me on behalf of Arizona Public Service Company with full authority to do so, and that to the best of my knowledge and belief, the statements made therein are true and correct.

William E. Ide

Sworn To Before Me This 17th Day Of May, 2002.

Notary Public

Notary Commission Stamp

ENCLOSURE 1

APS' Response to Information Requested by NRC Bulletin 2001-01, Items 4a, 5a, and 5b, and NRC Bulletin 2002-01, Items 2.A and 2.B

APS' Response to Information Requested by NRC Bulletin 2001-01, Items 4a, 5a, and 5b, and NRC Bulletin 2002-01, Items 2.A and 2.B

This is the Arizona Public Service Company (APS) response to information requested by Nuclear Regulatory Commission (NRC) Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles," dated August 3, 2001, Items 4.a, 5.a, and 5.b and NRC Bulletin 2002-01, "Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity," dated March 18, 2002, Items 2.A and 2.B.

NRC Required Information

Question 4 of NRC Bulletin 2001-01 required all PWR addressees with a susceptibility ranking greater than 5 EFPY and less than 30 EFPY of ONS3, to provide the following information.

4.a. Your plans for future inspections (type, scope, qualification requirements, and acceptance criteria) and the schedule.

APS Response

APS submitted Reference 2, which contained the following commitments:

- performing examinations of the Unit 2 Reactor Pressure Vessel Head (RPVH) nozzles during the next scheduled refueling outage at PVNGS
- finalizing the examinations schedule for Units 1 and 3 based on the results of the Unit 2 examinations and providing the schedule to the NRC

Examinations were conducted in Unit 2 during the current refueling outage to address NRC Bulletin 2001-01 and the issue of Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity. The outage was completed on April 17, 2002. APS will perform examinations similar to those completed in Unit 2 and described in Reference 3 during the next scheduled refueling outages in Unit 1 (fall of 2002) and Unit 3 (spring of 2003).

NRC Required Information

Question 5 of NRC Bulletin 2001-01 requested addressees to provide the following information within 30 days after a plant restart following the next refueling outage:

5.a. A description of the extent of the RPVH penetration nozzle leakage and cracking detected at your plant, including the number, location, size, and nature of each crack detected.

5.b. If cracking is identified, a description of the inspections (type, scope, qualification requirements, and acceptance criteria) repairs, and other corrective actions you have taken to satisfy applicable regulatory requirements.

APS Response

The Unit 2 Refueling Outage Number 10 (U2R10) was completed on April 17, 2002. The examinations completed during the U2R10 yielded no detectable defects. As a result, no repairs were required.

NRC Required Information

Bulletin 2002-01 requires all PWR addressees to provide within 30 days after plant restart following the next inspection of the reactor pressure vessel head to identify any degradation, the following information.

2.A. The inspection scope if different than that provided in response to Item 1.D, and results, including the location, size, and nature of any degradation detected.

2.B. The corrective actions taken, and the root cause of the degradation.

APS Response

The examinations performed to meet the requirements of NRC Bulletins 2001-01 and 2002-01 were conducted as described in the response to Item 1.D in Reference 3. The examinations yielded no detectable defects and no repairs were required.

Attachments 1 and 2 to Enclosure 2 contain the technical reports of the examination methodologies used during the Unit 2 nozzle inspections as requested by the NRC. Please note the information that is provided in Enclosure 2, Attachments 1 and 2 is proprietary commercial information. An Affidavit in support of the request that this information be withheld from public disclosure pursuant to 10 CFR 2.790(b)(1) is provided as Enclosure 2.

References

1. APS Letter No. 102-04603-CDM/SAB/RJR, "Response to NRC Bulletin 2001-01: Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles," Dated September 4, 2001, from Gregg R. Overbeck, APS to USNRC.
2. Letter 102-04628-GRO/SAB/RJR, "Revised Inspection Schedule in Response to NRC Bulletin 2001-01," dated December 6, 2001, from Gregg R. Overbeck, APS to USNRC
3. Letter 102-04681-GRO/SAB/RJR, "Response to Bulletin 2002-01: Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity," dated April 03, 2002, from Gregg R. Overbeck, APS to USNRC.

4. PWR Materials Reliability Program Response to NRC Bulletin 2001-01 (MRP-48), dated August 2001
5. FirstEntergy letter RAS02-00132, Probable Cause Summary Report for CR2002-0891, Significant Degradation of the Reactor Vessel Head Pressure Boundary, from S. A. Loehlein, Root Cause Team Leader, FirstEnergy to H.. W. Bergendahl, V.P.-Nuclear, FirstEnergy, dated March 22, 2002.

Enclosure 2

Application Requesting Information be Withheld From Public Disclosure

I, Norton L. Shapiro, depose and say that I am the Advisory Engineer of CE Engineering Technology, Westinghouse Electric Company LLC (WEC), duly authorized to make this affidavit, and have reviewed or caused to have reviewed the information which is identified as proprietary and described below. I am submitting this affidavit in conformance with the provisions of 10 CFR 2.790 of the Commission's regulations and in conjunction with the application of Arizona Public Service Company for withholding this information. I have personal knowledge of the criteria and procedures utilized by WEC in designating information as a trade secret, privileged, or as confidential commercial or financial information.

The information for which proprietary treatment is sought, and which documents have been appropriately designated as proprietary, is contained in the following:

- WDI-TJ-006-02, Demonstration of Volumetric Ultrasonic Inspection of CRDM Nozzles Using the Open Housing Scanner
- WDI-UT-013, CRDM/ICI UT Analysis Guidelines
- WDI-TJ-002-02, Technical Justification for Eddy Current Testing of J Groove Welds at CRDM Penetrations Using Procedure ISI-ET-001, Rev. 0; Eddy Current Inspection of J-Groove Welds in Vessel Head Penetrations

Pursuant to the provisions of Section 2.790(b)(4) of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information included in the documents listed above should be withheld from public disclosure.

1. The information sought to be withheld from public disclosure is owned and has been held in confidence by WEC. It consists test and analysis results that qualify an ultrasonic test process for performing inspections of reactor vessel head penetrations.
2. The information consists of analyses or other similar data concerning a process, method or component, the application of which results in substantial competitive advantage to WEC.
3. The information is of a type customarily held in confidence by WEC and not customarily disclosed to the public.
4. The information is being transmitted to the Commission in confidence under the provisions of 10 CFR 2.790 with the understanding that it is to be received in confidence by the Commission.
5. The information, to the best of my knowledge and belief, is not available in public sources, and any disclosure to third parties has been made pursuant to regulatory provisions or proprietary agreements that provide for maintenance of the information in confidence.
6. Public disclosure of the information is likely to cause substantial harm to the competitive position of WEC because:
   a. A similar product or service is provided by major competitors of WEC.
   b. WEC has invested substantial funds and engineering resources in the development of this information. A competitor would have to undergo similar expense in generating equivalent information.
   c. The information consists of test and analysis results that qualify an ultrasonic test process for performing inspections of reactor vessel head penetrations, the application of which

provides a competitive economic advantage. The availability of such information to competitors would enable them to design their product or service to better compete with WEC, take marketing or other actions to improve their product's position or impair the position of WEC's product, and avoid developing similar technical analysis in support of their processes, methods or apparatus.

d. Significant research, development, engineering, analytical, manufacturing, licensing, quality assurance and other costs and expenses must be included in pricing WEC's products and services. The ability of WEC's competitors to utilize such information without similar expenditure of resources may enable them to sell at prices reflecting significantly lower costs.

e. Use of the information by competitors in the international marketplace would increase their ability to market comparable products or services by reducing the costs associated with their technology development. In addition, disclosure would have an adverse economic impact on WEC's potential for obtaining or maintaining foreign licenses.

Norton L. Shapiro
Advisory Engineer

Sworn to before me this 15 Th day of May, 2002

Joan C. Hastings
Notary Public

My commission expires: JOAN C. HASTINGS
NOTARY PUBLIC
MY COMMISSION EXPIRES SEP. 30, 2002