



10 CFR 50.54(f)

Palo Verde Nuclear
Generating Station

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102-04868-GRO/SAB/RJR
November 26, 2002

U.S. Nuclear Regulatory Commission
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11555 Rockville Pike
Rockville, MD. 20852

- References:
1. NRC Bulletin 2002-02, "Reactor Pressure Vessel Head and Vessel Head Penetration Nozzle Inspection Program," dated August 9, 2002.
 2. NRC Bulletin 2002-01, "Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity," dated March 18, 2002.
 3. NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles," dated August 03, 2001.
 4. Letter 102-04703-GRO/SAB/RJR, "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" dated May 17, 2002

Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 1
Docket No. STN 50-528
APS' Response to Information Requested 30 Days after the Next
Refueling Outage by NRC Bulletins 2001-01, 2002-01, and 2002-02**

The bulletins identified in References 1, 2, and 3 above required licensees to provide the results of their reactor pressure vessel head inspections within 30 days after plant startup following the next refueling outage. On October 30, 2002, Arizona Public Service Company (APS) completed Unit 1's 10th refueling outage. In accordance with 10 CFR 50.54(f), Enclosure 1 provides the information requested by NRC Bulletin 2001-01, NRC Bulletin 2002-01, and NRC Bulletin 2002-02.

During a phone conversation on October 14, 2002, between the NRC and members of the APS staff to discuss the results of the Unit 1 Reactor Vessel Head examination, APS was asked to provide a discussion of any leak path data and the conclusion that there are no leaks identified in APS' pending 30-day after outage response to Bulletin 2002-02. The examinations performed in Unit 1 yielded no detectable defects, no visual

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U. S. Nuclear Regulatory Commission
APS' Response to Information Requested 30 Days after Next Refueling Outage by NRC
Bulletins 2001-01, 2002-01, and 2002-02

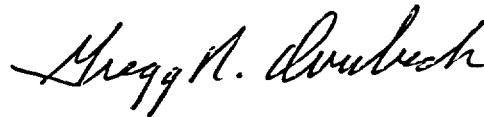
Page 2

indications of leakage on 24 peripheral nozzles examined, no visual indications of leakage on the reactor vessel vent line and no detection of any leak path indication between the nozzle outside diameter and shell bore interface. As a result, no repairs were required.

During the previous Unit 2 reactor vessel head examinations, APS and the NRC discussed the qualification methods for the inspection techniques being used at Palo Verde. At the time of the Unit 2 examinations the NRC requested, and APS provided, a copy of the qualification report in letter 102-04703-GRO/SAB/RJR (Reference 4). The examinations performed in Unit 1 were conducted employing the same methods and techniques as used in Unit 2.

No new commitments are being made to the NRC by this letter. Should you have any questions, please contact Thomas N. Weber at (623) 393-5764.

Sincerely,



GRO/SAB/RJR/kg

Enclosure: APS' Response to Information Requested 30 Days after Next Refueling
Outage by NRC Bulletins 2001-01, 2002-01, and 2002-02

cc:

| | |
|-----------------|--------------------------|
| E. W. Merschoff | (NRC Region IV) |
| J. N. Donohew | (NRR Project Manager) |
| N. L. Salgado | (NRC Resident Inspector) |

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I, Gregg R. Overbeck, represent that I am Senior Vice President – Nuclear, 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.



Gregg R. Overbeck

Sworn To Before Me This 26 Day Of November, 2002.



Notary Public



Notary Commission Stamp

ENCLOSURE

**APS' Response to Information Requested 30 Days after Next
Refueling Outage by NRC Bulletins 2001-01, 2002-01, and 2002-02**

**APS' Response to Information Requested 30 Days after Next Refueling Outage
by NRC Bulletins 2001-01, 2002-01, and 2002-02**

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 5.a, and 5.b; NRC Bulletin 2002-01, "Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity," dated March 18, 2002, Items 2.1 and 2.2 and NRC Bulletin 2002-02, "Reactor Pressure Vessel Head and Vessel Head Penetration Nozzle Inspection Programs," dated August 9, 2002, Items (2)A and (2)B.

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 1 Refueling Outage Number 10 (U1R10) was completed on October 30, 2002. The examinations yielded no detectable defects, no visual indications of leakage on 24 peripheral nozzles examined, no visual indications of leakage on the reactor vessel vent line, and no detection of any leak path indication between the nozzle outside diameter and shell bore interface. 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.

- 2.1. 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.
- 2.2. The corrective actions taken, and the root cause of the degradation.

APS' Response

The examinations performed in Unit 1 were conducted as described in the response to Item 1.D in Reference 2. The examinations yielded no detectable defects and no repairs were required.

Attachments 1 and 2 to Enclosure 2 of Reference 3 contained the technical reports of the examination methodologies used during the Unit 2 nozzle inspections. No significant changes were made to these methods and techniques during the performance of the examinations in Unit 1.

NRC Required Information

Bulletin 2002-02 requires within 30 days after plant restart following the next inspection of the RPV head and VHP nozzles to identify the presence of any degradation, all PWR addressees are requested to provide:

- (2) A The inspection scope and results, including the location, size, extent, and nature of any degradation (e.g., cracking, leakage, and wastage) that was detected; details of the NDE used (i.e., method, number, type, and frequency of transducers or transducer packages, essential variables, equipment, procedure and personnel qualification requirements, including personnel pass/fail criteria); and criteria used to determine whether an indication, "shadow," or "backwall anomaly" is acceptable or rejectable.
- (2) B The corrective actions taken and the root cause determinations for any degradation found.

APS' Responses

- (2)A Part 1: The inspection scope and results including the location, size, extent, and nature of any degradation (e.g., cracking, leakage, and wastage) that was detected...

The examinations performed in Unit 1 were conducted as described in the response to Item 1.D in Reference 2. The examinations yielded no detectable defects, no visual indications of leakage on 24 peripheral nozzles examined, no visual indications of leakage on the reactor vessel vent line, and no detection of any leak path indication between the nozzle outside diameter and shell bore interface. As a result, no repairs were required.

- (2)A Part 2: ...details of the NDE used (i.e., method, number, type, and frequency of transducers or transducer packages, essential variables, equipment,

procedure and personnel qualification requirements, including personnel pass/fail criteria)...

The details of the NDE methodology, equipment, procedures, and qualification requirements have been previously provided to the NRC in Enclosure 2 of Reference 3.

(2)A Part 3: ... criteria used to determine whether an indication, "shadow," or "backwall anomaly" is acceptable or rejectable.

The criteria used to determine the acceptability of "shadow" or "backwall anomaly" has been previously provided to the NRC in Enclosure 2 of Reference 3.

(2) B The corrective actions taken and the root cause determinations for any degradation found.

The examinations yielded no detectable defects and no repairs were required as a result, no root cause determinations were made and no corrective actions were taken.

NRC Requested Information

During a phone conversation on October 14, 2002, between the NRC and members of the APS staff to discuss the results of the Unit 1 Reactor Vessel Head examination, APS was asked to provide a discussion of any leak path data and the conclusion that there are no leaks identified in APS' pending 30-day after outage response to Bulletin 2002-02.

APS' Response

The examinations performed in Unit 1 were conducted as described in the response to Item 1.D in Reference 2. The examinations yielded no detectable defects, no visual indications of leakage on 24 peripheral nozzles examined, no visual indications of leakage on the reactor vessel vent line, and no detection of any leak path indication between the nozzle outside diameter and shell bore interface. As a result, no repairs were required.

References

1. 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
2. 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.

3. Letter 102-04703-GRO/SAB/RJR, "APS' Response to Information Requested by NRC Bulletin 2001-01, Items 4a, 5.a, and 5.b, and NRC Bulletin 2002-01, Items 2A and 2B", dated May 17, 2002.