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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION V  
1990 N. CALIFORNIA BOULEVARD  
SUITE 202, WALNUT CREEK PLAZA  
WALNUT CREEK, CALIFORNIA 94596  
MAY 20 1980

Docket No. 50-528  
50-529  
50-530

Arizona Public Service Company  
P.O. Box 21666  
Phoenix, Arizona 85036

Attention: Mr. E. E. Van Brunt Jr., Vice President  
Nuclear Projects Management

Gentlemen:

Subject: NRC Inspection of Palo Verde Units 1, 2 and 3

This refers to the inspections conducted by Mr. L. E. Vorderbrueggen of this office during the period March 3-14, 1980 of activities authorized by NRC Construction Permit Nos. CPPR-141, -142, and -143, and to the discussions of his findings with Mr. E. E. Van Brunt, Jr. and other members of your staff on March 14, 1980.

Areas examined during this inspection are described in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

No items of noncompliance with NRC requirements were identified within the scope of this inspection.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application to this office, within 30 days of the date of this letter, requesting that such information be withheld from public disclosure. The application must include a full statement of the reasons why it is claimed that the information is proprietary. The application should be prepared so

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E. E. Van Brunt, Jr.

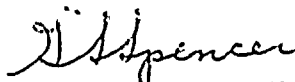
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that any proprietary information identified is contained in an enclosure to the application, since the application without the enclosure will also be placed in the Public Document Room. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this inspection, we will be glad to discuss them with you.

Sincerely,



G. S. Spencer, Chief  
Reactor Construction and  
Engineering Support Branch

Enclosure:

IE Inspection Report  
Nos. 50-528/80-05  
50-529/80-05  
50-530/80-05

U. S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 50-528/80-05  
50-529/80-05  
50-530/80-05

Docket No. 50-528, 50-529, 50-530 License No. CPPR-141, -142, -143 Safeguards Group           

Licensee: Arizona Public Service Company

P.O. Box 21666

Phoenix, Arizona 85036

Facility Name: Palo Verde Nuclear Generating Station - Units 1, 2, and 3

Inspection at: Palo Verde Construction Site, Wintersburg, Arizona

Inspection conducted: March 3-14, 1980

Inspectors: *R. T. Dodds*  
L. E. Vorderbrueggen  
Resident Reactor Inspector

5/20/80  
Date Signed

Date Signed

Approved By: *R. T. Dodds*  
R. T. Dodds, Chief, Eng. Support Section  
Reactor Construction & Engineering Support Branch

5/20/80  
Date Signed

Summary: Inspection on March 3-14, 1980 (Report Nos. 50-528/80-05, 50-529/80-05, and 50-530/80-05)

Areas Inspected: Routine, unannounced inspection of construction activities by the resident inspector including: Unit 1 control building cable tray, containment building concrete records, and main steam support structure concrete; Unit 3 containment basemat concrete placement; formal interviews of craftsmen, and miscellaneous work in progress.

The inspection involved 41 inspector hours on-site by one NRC inspector.

Results: No deviations or items of noncompliance were identified during the inspection period.

## DETAILS

### 1. Persons Contacted

#### a. Arizona Public Service Company (APS)

- \*E. E. Van Brunt, Jr., Vice President, Nuclear Projects Management
- \*J. A. Roedel, Manager, Quality Assurance
- \*W. E. Ide, Site QA Supervisor
- \*S. Kesler, Supervising Engineer
- \*L. W. Price, Site Construction Manager
- R. D. Forrester, QA Engineer
- \*D. E. Fowler, QA Engineer

#### b. Bechtel Power Corporation (Bechtel)

- \*W. J. Stubblefield, Field Construction Manager
- \*D. R. Hawkinson, Project QA Supervisor
- \*C. E. Gaither, Assistant Project Field Engineer
- \*R. M. Grant, Project QC Engineer
- \*A. K. Priest, Project Field Engineer
- J. McDermott, QC Engineer
- W. Miller, Civil Superintendent

Other persons contacted during the inspection period included construction craftsmen, inspectors, and supervisory personnel.

\* - Denotes attendees at exit discussion on March 14, 1980.

### 2. Unit 1 Control Building Cable Tray

Four installed cable trays in the lower cable spreading room were examined for conformance with the specified requirements. The trays were:

- 1EZJ2ADTR, Sections EE through EQ
- 1EZJ2ADTY, Sections EE through EQ
- 1EZJ2ABTR, Sections FK through FV
- 1EZJ2ABTY, Sections FK through FV

The governing specification was 13-EM-303, Electrical Cable and Raceway Installation, and the applicable drawings were 13-E-ZJC-006 and -007, Control Building Conduit and Tray Plan at Elevation 120-ft. ZJ2A, and ZJ2B.

No deviations or items of noncompliance were identified.

3. Unit 1 Containment Dome Concrete Records

The inspector examined the placement and post-placement (curing) records pertaining to the containment dome final concrete placement (No. 1C123-1380 cu. yds.). The applicable inspection plans were WPP/QCI 53.0 for the placement and WPP/QCI 54.0 for post-placement.

No deviations or items of noncompliance were identified.

4. Unit 1 Main Steam Support Structure (MSSS)

During a tour of Unit 1, the inspector observed regularly spaced horizontal cracks in the exterior surface of the north wall of the MSSS between the 120 and 140-foot elevations. Also in evidence was cadweld filler metal tips from several cadweld sleeve tap holes. The inspector learned that this condition had been found by Bechtel when the concrete forms were removed and had been documented on a nonconformance report (No. CC-1662). The situation demonstrates that the concrete cover over the No. 18 reinforcing bar is less than the minimum allowable thickness of 1 3/8-inches. It is believed to have been caused by form movement during concrete placement. Remedial action for rectifying the situation is being evaluated by Bechtel. This item will be examined further during subsequent inspection (50-528/80-05/01).

5. Unit 3 Containment Base Mat

The work activities associated with the containment basemat concrete placement 3C012 and 3C013 were examined. The quantity of concrete involved was 7,280-cu. yds and was placed in one continuous operation. Activities examined included foundation cleanup and preparation, aggregate handling, concrete mixing and slump measurement, concrete placement and consolidation, and finishing operations. The governing specification was 13-CM-365, Forming, Placing, Finishing and Curing of Concrete. WPP/QCI 53.0 and WPP/QCI 54.0 were the applicable inspection plans for pre-placement and placement, respectively. These documents were also examined as were a representative sample of concrete batching records, and test laboratory records for temperature and slump measurements.

No deviations or items of noncompliance were identified.

6. Craftsmen Interviews

The trial program of formal, private interviews with construction craftsmen involved with safety-related work was concluded. Private discussions were held with twelve (12) individuals. None expressed any concerns about the adequacy of construction quality. All were courteous and cooperative. No quality-related irregularities were identified to the inspector.

7. Plant Tours

The construction site was toured several times during this reporting period. Particular attention was given to work in progress, general housekeeping conditions, care and preservation of equipment, and general implementation of quality assurance program requirements.

No items of noncompliance or deviations were identified during the plant tours.

8. Management Discussion

On March 14, 1980, the inspector met with the project personnel denoted in paragraph No. 1 to summarize the scope of the inspection activities and the inspection findings as described in this report.