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

50-528/79-08 REGION V 50-529/79-08 Seport No. 50-530/79-04	
ocket No. 50-528, 50-529, 50-530 License No. CPPR-141, CPPR-142, CP	PPR-143 Safeguards Group
Icensee: Arizona Public Service Company	<del>_</del> -
P. O. Box 21666	<del>-</del>
Phoenix, Arizona 85036	_
acility Name: Palo Verde Nuclear Generating Station - Units 1, 2	_and 3
spection at: Palo Verde Construction Site, Wintersburg, Arizona	h
spection conducted: October 1-31, 1979	
espectors: Tolorderbrucage	12/21/79
L. E. Vorderbrueggen, Resident Reactor Inspector	/Date 8igned
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proved By: DDDDDD	12/21/79
R. T. Dodds, Chief, Eng. Support Section Reactor Const. & Engineering Support Branch	Date Signed
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Inspection on October 1-31, 1979 (Report Nos. 50-528/79-08, 50-529/79-08, and 50-530/79-04)

Areas Inspected: Routine, unannounced inspection of construction activities by the resident inspector including: licensee action on previously identified items; Unit 1 diesel generator installation; Unit 1 spray pond structure; Unit 2 control building concrete and underground electrical conduit; earth compaction for Unit 3 basemat; Unit 3 tendon gallery reinforcing steel and formwork; Unit 3 reactor pit liner; and miscellaneous work in progress. The inspection involved 46 inspector hours on-site by one NRC inspector.

<u>Results</u>: No deviations or items of noncompliance were identified during the inspection period.

#### **DETAILS**

#### Persons Contacted

#### a. Arizona Public Service Company

- \*E. E. Van Brunt, Jr., Vice President/Project Director
- \*J. A. Roedel, Manager, Quality Assurance
- #R. L. Hand, Site QA Supervisor
- \*L. W. Price, Site Construction Manager
- R. D. Forrester, Quality Assurance Engineer
- N. S. Ruiz, Quality Assurance Engineer
- N. E. Wibel, Quality Assurance Engineer
- \*G. E. Pankonin, Quality Assurance Engineer
  \*R. J. Kimmel, Site Nuclear Construction Engineer

#### b. <u>Bechtel Power Corporation</u>

- \*W. J. Stubblefield, Field Construction Manager
- \*D. W. Hawkinson, Project Quality Assurance Supervisor
- \*C. E. Gaither, Assistant Project Field Engineer
- \*R. M. Grant, Project Quality Control Engineer
- A. Becker, Field Engineer, Civil
- J. L. Black, Resident Engineer

#### c. Fugro, Inc.

- W. Dubois, Field Supervisor
- J. Copp, Laboratory Supervisor
- # Denotes attendance at the Management Interview on October 19, 1979
- \* Denotes attendance at the Management Interview on October 26, 1979

## 2. Licensee Action on Previously Identified Items

On May 15, 1979, the licensee notified the Region V office via telephone of a potential 50.55(e) reportable item involving 2-inch and smaller carbon steel, socket weld type valves. Cracking problems had been encountered in the weld root due to the presence of nickel plating applied by the valve manufacturer to the valve body, including the welding surfaces. All valves with this nickel plating, 747 in number, were returned to the manufacturer for removal of the plating.

The inspector reviewed NCR No. P-X-477 and Deficiency Evaluation Report No. 79-6 covering this matter. The licensee concluded that the situation was not reportable on the basis that any cracks would be confined to the weld root due to weld metal dilution, and any failures would be in the form of small leaks rather than quillotine-type breaks. The inspector had no further questions on this matter.

#### 3. Unit 1 Diesel Generator - Train A

The activities associated with transferring the Train A emergency diesel generator into the generator building and placing it on its foundation were observed by the inspector. All operations appeared to proceed in a smooth organized fashion, and appropriate supervision of the riggers and millwrights workers involved in the operation was in evidence. No items of noncompliance or deviations were identified.

#### 4. Unit 1 Spray Pond .

Structural installation activities of the Unit 1 spray pond were examined. This included the reinforcing steel for the floor slab in the north-west quadrant, form placement for the south-west wall and the center separation wall, reinforcing steel placement for several piping support columns and the lower pump structure, and embed placement in several equipment support pads. The governing specifications were 13-CM-365, Forming, Placing, Finishing and Curing of Concrete, and 13-CM-375, Placing of Reinforcing Steel. The applicable drawings were 13-C-SPS-375 through -380, inclusive. No items of noncompliance or deviations were identified.

#### 5. Unit 2 Control Building Concrete

Conditions of severe rockpocketing, honeycoming, and voids around blockouts were found when the forms were stripped from placements 2J022 and 2J023. These were wall sections in the southwest corner of the control building from elevation 100 to 120 feet. The conditions resulted from improper consolidation in regions of heavy reinforcing steel congestion, and were documented on Nonconformance Report No. C-J-1542. The inspector examined the affected areas and observed workmen chipping out the faulty concrete in preparation for making repairs, and later observed that all unacceptable areas had been properly excavated for the repair. The inspector verified that repair procedures covering situations of this nature are contained in Section 16.0 of Specification 13-CM-365, Forming, Placing, Finishing and Curing of Concrete. The inspector had no further questions at this time.

## 6. Unit 2 Spray Pond Underground Conduit Banks

The inspector examined the placement of a portion of the two (redundant) conduit banks which are embedded in concrete under the Unit 2 Control and Diesel Generator buildings and which serve the electrical equipment associated with the Unit 2 Spray Pond. The conduit was being placed in a workmanlike manner using the spacers specified, all in accordance with the requirements specified on Drawing 13-E-ZAC-050, Conduit and Tray Notes, Symbols and Details. No items of noncompliance or deviations were identified.

#### 7. Unit 3 Containment Reactor Pit Liner

The completed floor and wall liner plate in the reactor pit for Unit 3 was examined by the inspector. Numerous welds between the various plate segments, as well as the welds attaching the "B" Series cadweld sleeves to the floor plates, were examined. The inspector did not identify any items of noncompliance or deviations from the applicable specification No. 13-CM-370, Erecting the Containment Building Liner Plate System, and Drawings 13-C-ZCS-198 and -199, Reactor Pit Liner and Inserts.

#### Unit 3 Tendon Gallery

The reinforcing steel and formwork for the gallery outer wall segment from azimuths 120-degrees to 240-degrees was examined by the inspector. The forms appeared to be properly tied and braced, with appropriate clearance to provide the minimum concrete cover for the reinforcing steel. The steel was of the size and spacing specified on Drawing 13-C-ZCS-101, Reinforcing Plan - Reactor Pit and Gallery Walls, and was adequately tied to prevent movement during concrete placement. The final structure appeared to be free from debris and ready to receive concrete (Placement 3C-0008). No items of noncompliance or deviations were identified.

#### 9. Unit 3 Base Mat Earth Compaction

The inspector observed work activities associated with earth compaction in preparation for installation of the containment base mat. The backfill material being used appeared to be appropriately fine and of uniform moisture content as required for Class 1 structural backfill. A review of the testing contractor's records showed that the material was well within the gradation requirements of the specification (13-CM-300, Excavation and Backfill). It was also observed that the material was being placed within the specified maximum lift sizes. The inspector watched the test laboratory technician obtain two test specimens and perform the density test as directed by the specified method (ASTM-1556-64 (1974), Test for Density of Soil in Place by the Sand-Cone Method). The two specimens were taken at the 54-foot elevation, one at the 205-degree azimuth and 11 1/2-feet inside the gallery wall, and the other at the 100-degree azimuth up against the reactor pit wall. The test results were well above the specified minimum acceptable value of 95% of maximum dry density as determined by ASTM-D-1557-70, Test for Moisture-Density Relations of Soil. The technicial qualifications were subsequently verified.

The inspector later visited the testing contractor's laboratory and verified that the apparatus (scales, moisture indicator, and sand cone) used by the technician had current calibration records on file. Also examined in the laboratory were the compaction density test records for all tests that had been performed to that date (10/24). All were statisfacotry and were shown to be conservative, based on laboratory testing of the same samples using the absolute dry density method. No items of noncompliance or deviations were identified.

#### 10. Plant Tours

The inspector toured the construction site several times each week during the inspection report period. Particular attention was given to work in progress, presence of supervision and quality control inspectors at the work areas, care and preservation of equipment, and general housekeeping practices. No items of noncompliance or deviations were identified during the plant tours.

#### 11. Management Interview

The inspector met with the licensee representatives denoted in paragraph 1 on October 19 and 26, 1979. The scope of the inspections and the inspection findings as noted in this report were discussed. The licensee representatives made no significant comments.



# UNITED STATES . NUCLEAR REGULATORY COMMISSION

REGION V 1990 N. CALIFORNIA BOULEVARD SUITE 202, WALNUT CREEK PLAZA WALNUT CREEK, CALIFORNIA 94596

JUL 23 1979

Docket Nos. 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, Construction Projects

and ANPP Director

Gentlemen:

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

This refers to the inspection conducted by Messrs. L. E. Vorderbrueggen, J. H. Eckhardt, and G. Hernandez of this office on June 11-15, 1979, of activities authorized by NRC Construction Permit Nos. CPPR-141, CPPR-142 and CPPR-143, and to the discussion of our findings with Mr. E. E. Van Brunt, Jr., and other members of your staff at the conclusion of the inspection.

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 inspectors.

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 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. 50-528/79-04

50-529/79-04

50-530/79-02

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

!	50-528/79-04 50-529/79-04 50-530/79-02	
Docket No.	50-528, 50-529, 50-530 License No. CPPR-141, -142 & -143	Safeguards Group
Licensee:	Arizona Public Service Company	_
1	P. 0. Box 21666	•
· , <u></u>	Phoenix, Arizona 85036	•
Facility Nar	ne: Palo Verde Units 1, 2 and 3	
Inspection a	Palo Verde Site, Maricopa County, Arizona	, ·
Inspection o	conducted: June 11-15, 1979	
Inspectors:	Talorderbrue of Gam	7/23/79
4	L. E. Vorderbrueggen, Reactor Inspector	/Date Signed
- La		7/23/79 Date Signed
y J	Stellorderbrueggen.	7/23/79
Approved By	2G. Hernandez, Reactor Inspector	Date Signed 7/23/79
*	R. T. Dodds, Chief, Engineering Support Section,	/Date/Signed
	Reactor Construction and Engineering Support Branch	*

Summary:

<u>Inspection of June 11-15, 1979 (Report Nos. 50-528/79-04, 50-529/79-04 and 50-530/79-02)</u>

Areas Inspected: Routine, unannounced inspection of construction activities including: follow-up of open and unresolved items for Units 1 and 2, follow-up of one item of noncomopliance for Unit 2, in-place storage surveillance for Unit 1 reactor vessel, pipe supports and restraints in Unit 1, and base mat installation for Unit 3 reactor building and auxiliary building. The inspection involved 71 inspector hours onsite by three NRC inspectors.

<u>Results</u>: No items of noncompliance or deviations were identified during this inspection.

RV Form 219 (2)

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#### **DETAILS**

#### 1. Persons Contacted

#### Arizona Public Service Company

- \*E. E. Van Brunt, Jr., Vice Presiden/Project Director
- \*W. M. Petro, Construction Manager
- \*R. L. Robb, Manager, Nuclear Services
- \*J. A. Roedel, Quality Assurance Manager
- \*L. W. Price, Field Engineering Supervisor ·
- \*R. L. Hand, Site Quality Assurance Supervisor
  - G. Pankonin, Quality Assurance Engineer
  - R. D. Forrester, Quality Assurance Engineer
  - N. E. Wibel, Quality Assurance Engineer

#### Bechtel Power Corporation

- \*W. J. Stubblefield, Field Construction Manager
- \*A. K. Priest, Project Field Engineer
- \*D. R. Hawkinson, Project' Quality Assurance Engineer
- \*L. G. Hinkelman, Manager Domestic Operations
- \*J. E. Bayshore, Manager Quality Assurance
- \*W. H. Wilson, Project Manager
- \*W. G. Bingham, Project Engineering Manager
- \*H. L. Claxton, Construction Specialist
- \*D. T. Krisha, Quality Assurance Supervisor
- J. L. Black, Resident Engineer
- C. J. Dun, Assistant Project Field Engineer
- W. Leuniz, Construction Superintendent Boilermakers
- T. Horst, Lead Field Engineer Civil
- M. Patterson, Field Engineer Piping
- W. C. Bentley, Civil Engineer
- R. M. Rosen, Quality Assurance Engineer
- V. F. Duckett, Unit 1 Field Engineer Mechanical
- H. C. Higgins, Assistant Lead Field Engineer Mechanical
- S. Palmrose, Quality Assurance Engineer

#### Champion, Inc.

- P. L. Mallott, Quality Control Supervisor
- B. Canavan, Plant Manager
- \*Denotes those attending exit interview.

## 2. Construction Status

The licensee reported that as of May 31, 1979, the approximate completion status of Unit 1 was 41.2%, Unit 2 was 15.8%, and Unit 3 was 1.2%. The overall project was considered to be 27.1% complete.

#### 3. <u>Licensee Action on Previous Inspection Findings</u>

a. (Closed) Noncompliance Item (50-529/79-01). Surveyors were using a drawing for construction which was labeled as being incomplete or unapproved.

The inspector examined Bechtel memoranda and procedure WP/P QCI 3.0 which verified that the corrective action described in the licensee's response of June 5, 1979 to the NRC Notice of Violation had been satisfactorily accomplished. This item is closed.

b. (Closed) Unresolved Item (50-528/79-03/01). Assembly techniques and inspection criteria pertaining to the Unit 1 containment dome liner system.

At the request of NRC, a meeting was held on May 11, 1979, in the NRC Region V office with licensee and Bechtel representatives for the purpose of conducting an in-depth technical discussion of this matter. At that meeting, Bechtel presented a summary of fit-up. problems which were documented by the Resident Engineer subsequent to the 79-03 NRC inspection. A handout was provided which defined the plate seam locations, and the welding and acceptance status. Polaroid photographs showing typical misfit and stiffener distortion were also displayed. The problems identified and discussed included:

- (1) Overlapping of adjacent plates
- (2) Wide gaps between adjacent plates (which exceed the root gap criteria)
- (3) Vertical gaps between adjacent plates (as much as two inches in one case)
- (4) Buckled stiffener plates and angles due to jacking loads
- (5) Bent liner plate
- (6) Broken tack welds

Bechtel pointed out that the stiffener system functions as the concrete anchorage for the liner plate system and, with the liner plate, acts as the form for subsequent concrete placement.

Sample calculations were presented by Bechtel which demonstrated that the loads being applied for liner segment assembly were well within the allowable stress levels specified in the governing Subsection CC 3720 of ASME Section III, Division 2. The calculations were considered to be conservative because of the physical limitations associated with the construction equipment involved in the assumptions.

Conservative calculations in regard to plate bending criteria, and planar bending of the liner plate system due to jacking loads applied across a complete weld seam near the apex, were also discussed. It was seen that for a maximum outer fiber strain of 3% (ASME Section III, Division 2, Subsection CC 4521.2.1, allows up to 5% before heat treating is required), a minimum bending radius of 5.4 inches is allowed. Bechtel stated that there were no bends in the dome liner plate that were not well in excess of 5.4 inches radius. NRC questioned the effect of stress concentration at the end of a partially completed seam weld when jacking loads are applied in the same direction as the plane of the liner plate. Bechtel stated that such stress concentration is precluded by the assembly techniques i.e., seam tack welding and temporary cross-seam bridging members. In any event, however, the final vacuum box testing of the seams for leak tightness would detect any cracks which would then be repaired, according to Bechtel.

Receiving inspection was also discussed. The supplier performs the dimensional checks in his fabrication shop. Upon arrival at the jobsite, inspection is made for shipping damage only. No dimensional checks are made at that time; however, there are dimensional checks made at the assembly jig. The condition of the received plate was poor at the beginning but has been improving, according to Bechtel.

It was Bechtel's stated intention to perform the following functions in completing the fit-up of the Unit 1 dome liner plate subassemblies:

- (1) Replace buckled and damaged stiffeners.
- (2) Bend plates back to the required shape.
- (3) For overlapping plates, cut the plates back to achieve the required root gap.
- (4) For wide gaps, the liner plate is to be buttered to achieve 3/4-inch root gap, and rebeveled for final welding.
- (5) A 15-inch template check would be performed.

Also, the Resident Engineer would be closely involved in the follow-up and review of this work and, before final welding to the "dollar plate, he would perform a final acceptance inspection.

With regard to specifically stated concerns of the NRC, the following agreements between the participants were reached:

(1) Specification 13-CM-370 would be revised to include the criteria of 2/3 fy for stresses due to construction loads, and for plates bent to a radius of 6-inches or greater. Calculations were to be made to translate the stress into terms which construction can

use, such as, 6-ton come-a-longs at specified spacings. Such information would be included as an attachment to Specification 13-CM-370.

- (2) Engineering direction regarding welding sequence is not required. The erection limitations currently in Specification 13-CM-370, and the additional limitations that are planned to be added, are sufficient to assure an installation which is well within the ASME Code stress level boundaries.
- (3) The Resident Engineer represents home office engineering and has been involved with the superintendents from the beginning of the erection of the containment building liner plate system. He has been and will continue to be involved with the follow-up of the work and corrective actions, in coordination with the design engineering team in Downey.
- (4) Specification 13-CM-370 would be revised within a month. The Resident Engineer would hold a meeting with Construction personnel to familiarize them with the upgraded provisions, and to assure that the points of concern were properly understood. Minutes of the meeting would be issued and kept in the file.
- (5) Past records would be reviewed to find NCRs which indicate shipping damage observed during receiving inspection. These NCRs will be evaluated to determine if any plate was bent to radius less than 5.4 inches, thus incurring strains greater than 3%. A final report of this evaluation and resolution is to be provided to the NRC.
- (6) Resumption of fit-up and welding work on the Unit 1 dome liner plate system would not occur until the specification changes contemplated in (1) above are implemented, and the indoctrination meeting identified in (4) above was conducted.\*

During this inspection, the action taken relative to the commitments made at the May 11th meeting was examined. Changes to Specification 13-CM-370 had been appropriately formalized by Specification Change Notice No. 1687 dated May 14, 1979. Meeting minutes, with a listing of attendees, were on file for the construction personnel indoctrination sessions conducted by the Resident Engineer on May 14 and 15, 1979. Additionally, the Resident Engineer was maintaining a detailed log of his inspection/direction activities involving the Unit 1 dome liner work. The liner plate receiving inspection NCRs had been collected and were undergoing evaluation by Bechtel. The liner work

<sup>\*</sup>These two measures were accomplished and work was resumed with NRC Region V concurrence on May 15, 1979.

in progress on the Unit 1 containment dome was examined by the inspector and appeared to be in accord with the specification requirements; there was no evidence of excessive forces being employed or material distress in any of the components.

In consideration of the remedial action which has been accomplished by the licensee in regard to the erection of the Unit 1 containment dome liner plate system, this issue is considered closed.

c. (Closed) Follow-up Itém (50-529/79-03/02). A concern was raised with respect to the identification and repair of cracks in Unit 2 tendon gallery.

At the time of this inspection, Hunts Contracting Company had completed repair of cracks identified by Bechtel's Resident Engineer and documented in NCR No. 1341. The cracks were repaired with epoxy injection in accordance with Specification 13-CF-014. The inspector examined the work performed and discussed with cognizant engineers the criteria used in determining which cracks were repaired and which were accepted "as-is." Based on this and a review of NCR No. 1341, it appeared that the questions raised by the inspector had been adequately answered. This item is closed.

d. (Closed) Open Item (50-529/79-03/03). Wire-cloth sieves at Batch Plant testing laboratory appeared to be out of tolerance.

The licensee provided results of tests performed with the sieves in question and a master set of sieves. The tests were performed per ASTM Cl36-71 and indicated a 0.01 difference in Fineness Modulus between the two tests. Comparison to a master set of sieves is an approved method for certifying working sieves. This item is closed.

## 4. <u>Unit 1 Polar Crane Support Girders</u>

During an audit of Marathon Steel Company, the fabricator of the polar crane support girders, the licensee found that the continuous 1/2-inch fillet weld which connects the vertical 1 1/2-inch vertical plate to the plate which makes up the top flange of the girder was interrupted at the location of each 3/4-inch thick stiffener plate. This fabrication error was considered by the licensee as potentially reportable under the requirements of 10 CFR 50.55(e); therefore, Bechtel was directed to analyse the situation. The inspector examined Deficiency Evaluation Report No. 79-2, dated April 27, 1979, which documented the cause, the corrective actions taken, and the results of the technical analysis. The analysis indicated that the weld interruption at the stiffener locations would not adversely affect the capability of the girder to perform its intended function.

#### 5. Unit 1 Reactor Vessel Surveillance

The inspector verified that measures for protecting the reactor vessel and maintaining its internal cleanliness were being followed and that the Bechtel Quality Assurance group was performing surveillance in this regard in accordance with the approved program.

#### 6. Unit 3 Concrete Quality Records

The inspector reviewed the quality records (i.e.: preplacement and post-placement inspections, curing cards, batch plant tickets, compressive strength test results, etc.) for Unit 3 concrete placements 3C010 Reactor Pit base mat and 3A004, -5, -6 Auxiliary Building base mat for compliance with WPP/QCI 53.0, Concrete Placement and WPP/QCI 54.0, Concrete Postplacement. No deviations from the applicable acceptance criteria were identified by the inspector.

#### 7. Unit 1 Diesel Generator Foundation

The inspector observed work in progress for the two diesel generator foundations for Unit No. 1. It was determined that the work was being installed in accordance with current specifications and drawings. A review of receipt and inspection records for the foundation anchor bolts disclosed that material certifications were missing for the A449 bolts specified on drawing number 13-C-ZGS-110. Licensee personnel indicated that the material certification would be available for review during the next inspection. This item is open pending review of the material certification. (50-528/79-04/01)

## 8. Safety Related Pipe Supports and Restraints

## a. Review of Quality Assurance Implementing Procedures and Work Procedures

The following pipe support and restraint documents were reviewed to ascertain adequacy of audit program, material control, field change control, inspection, and documentation.

- (1) Specification 13-PM-209, "Specification for Nuclear Pipe Supports"
- (2) WPP/QCI-201.1, "Nuclear Pipe Hangers and Supports Installation"

No deivations or items of noncompliance were identified.

## b. Observation of Work and Work Activities

The following completed and accepted pipe supports installed in Unit 1 auxiliary building were selected for examination:

<u>System</u> .	Support Number	Pipe Diameter, in.
Chemical and Volume Control	1CH142H006 1CH320H006	. 20 3
Essential Cooling Water	1EW023H024	6
Fuel Pool Cooling and Cleaning	1PC022H012	12
Safety Injection	1SI079H005 1SI105H001 1SI144H005 1SI194H008	10 4 3 18

The supports were all of a fixed design, quality class Q, seismic category 1, and ASME Section III, Class 2 or 3. They were compared with the applicable pipe support assembly drawings to ascertain proper location, welding, pipe clearances, and as-built configuration.

All of the supports appeared satisfactory with the exception of support number 1SI079H005. The weld size for this support was not as specified in the drawing in that one leg of the fillet weld of the pipe saddle to saddle base was only 1/4 inch, whereas the draw-specified a 3/8 inch fillet weld. This weld was a shop weld installed by Pullman Power Products (the piping supplier) and was an ASME Class 2 weld. Other welding on this support (both Pullman and Bechtel field welding) as well as on the other pipe supports examined appeared satisfactory.

This item is considered unresolved pending examination of a larger sample of Pullman welds during a future inspection to determine if a generic problem with fillet weld size exists (50-528/78-04/02).

### c. Review of Quality Assurance Records

The Quality Assurance records associated with the pipe supports listed in Paragraph 8.b, above, were reviewed. The records included construction inspection plans for all of the supports examined, and welding and NDE records for the five supports that had ASME welds. All records appeared satisfactory with the exception of the records for support number 13SI144H005. This support assembly included two stainless steel lugs welded to the pipe. The construction inspection plan indicated that the welds for both lugs (weld numbers 2 and 3) had been liquid penetrant tested. However, the LP test report did not indicate that

a LP test had been performed on weld 2. These records had been signed and approved. The licensee indicated that these records would be re-reviewed and a LP test performed on weld 2 if no evidence could be produced to indicate that a LP test had previously been performed. This is considered an open item (50-528/78-04/03).

#### 9. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on June 15, 1979, and summarized the scope and findings of the inspection, including the items discussed in Paragraphs 7 and 8.