

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos: 50-528/87-31, 50-529/87-31, 50-530/87-32

Docket Nos: 50-528, 50-529, 50-530

License Nos: NPF-41, NPF-51, NPF-65

Licensee: Arizona Nuclear Power Project  
P. O. Box 52034  
Phoenix, AZ. 85072-2034

Facility Name: Palo Verde Nuclear Generating Station Units 1, 2 & 3.

Inspection Conducted: September 13, 1987 through October 31, 1987.

Inspectors: SJR FOR 11/17/87  
J. Ball, Resident Inspector Date Signed

SJR FOR 11/17/87  
G. Fiorelli, Resident Inspector Date Signed

SJR FOR 11/17/87  
K. Ivey, Resident Inspector Date Signed

R. P. Sorenson  
C. Sorenson, Reactor Inspector 11/17/87  
Date Signed

Approved By: SJR 11/17/87  
S. Richards, Chief, Engineering Section Date Signed

Summary:

Inspection on September 13, 1987 through October 31, 1987 (Report Nos. 50-528/87-31, 50-529/87-31, and 50-530/87-32)

Areas Inspected: Routine, onsite, regular and backshift inspection by the three resident inspectors and one region based inspector. Areas inspected included: followup of previously identified items; review of plant activities; plant tours; engineered safety feature system walkdowns; surveillance testing; plant maintenance; reactor coolant pump shaft cracking; Unit 3 containment integrity; Unit 3 initial criticality and low power physics testing; followup on GE HFA auxiliary relays; licensee event report followup; review of selected Title 10 requirements; inspection of the Part 21 reportability program; followup deficiency evaluation report - diesel generator engine fire; non-licensed staff training; Unit 1 refueling outage; Unit 3 work control; and review of periodic and special reports.

During this inspection the following Inspection Procedures were covered:  
30703, 36100, 36301, 36301-1, 37700, 37700-1, 37700-2, 41400, 60705,  
60710, 61701, 61710, 61715, 61720, 61726, 62700-1, 62703, 70322, 70326,  
70370, 71707, 71707-1, 71709, 71710, 71726, 71881, 72302, 72564, 72566B,  
72570, 72570B, 72572, 72592, 72596B, 73753, 90713, 91300, 92700, 93702.

Results: Of the 15 areas inspected, no violations were identified.



## DETAILS

### 1. Persons Contacted:

The below listed technical and supervisory personnel were among those contacted:

#### Arizona Nuclear Power Project (ANPP)

R. Adney,	Operations Superintendent, Unit 2
*J. Allen,	Manager, Operations
*T. R. Bradish,	Supervisor, Compliance
L. Brown,	Manager, Radiation Protection and Chemistry
R. Buckhalter,	Superintendent, Outage Management Unit 3
F. Buckingham,	Manager, Operations Unit 2
B. Cederquist,	Manager, Chemical Services
B. Craig,	Manager, Quality Systems and Engineering
W. Craig,	Manager, Procurement
J. Dennis,	Operations Supervisor, Unit 1
J. Driscoll,	Asst. Vice President, Nuclear Production
W. Fernow,	Manager, Training
R. Gouge,	Operations Superintendent, Unit 3
J. G. Haynes,	Vice President, Nuclear Production
*W. E. Ide,	Manager, Corporate Quality Assurance
*J. E. Kirby,	Director, Site Services
D. Nelson,	Operations Manager, Security
R. Nelson,	Manager, Maintenance
R. Papworth,	Manager, Operations Engineering
G. Perkins,	Manager, Radiological Services
*J. Pollard,	Operations Supervisor, Unit 2
F. Riedel,	Operations Supervisor, Unit 3
*T. Shriver,	Manager, Compliance
*J. M. Sills,	Senior Compliance Engineer
L. Souza,	Manager, Asst. Quality Assurance
E. E. Van Brunt, Jr.,	Executive Vice President
*J. Vorees,	Manager, Nuclear Safety
R. Younger,	Operations Superintendent, Unit 1
*O. Zeringue,	Manager, Technical Support

The inspectors also talked with other licensee and contractor personnel during the course of the inspection.

\*Attended the Exit Meeting on October 29, 1987.



## 2. Previously Identified Items.

### Unit 1

- a. (Closed) Violation (528/87-01-01): "Failure to Perform Channel Check on Log Power Channels".

The inspector had determined that the channel checks being performed on the log power instrumentation did not satisfy the Technical Specification 1.5 definition of a channel check. Specifically, a qualitative assessment of channel behavior by comparison with other independent instrument channels measuring the same parameter was not being done.

The licensee instituted numerous procedure changes, in both surveillance tests and administrative control procedures, to establish the necessary acceptance criteria to satisfy the definition of a channel check. The inspector reviewed a sample of the revised procedures and found them to be acceptable. This item is closed.

### Unit 2

- a. (Closed) Inspector Followup Item (529/86-33-14): "Document Action Item From Post Trip Review Reports and IE Information Notices".

The inspector reviewed the actions taken by the licensee in connection with the compilation of a list of items requiring resolution that have been documented in post trip review reports. The inspector noted that the list has been compiled. Monthly meetings are conducted with involved organizational representatives to track the status and needed actions related to the items. An administrative procedure discussing the program is also being developed. The program appears to be functioning at this time. The inspector confirmed that the status of completion of all IE Information Notices has also been completed. This item is closed.

## 3. Review of Plant Activities.

### a. Unit 1

The unit operated at 100% power until September 17, when the licensee began a reactor power coastdown due to nearing the end of the fuel cycle. The coastdown continued until October 2, when the unit was shutdown from 82% power for the first refueling outage. The outage was initially scheduled for 69 days, but was extended to 88 days due to the increased effort required to replace the reactor coolant pump shafts (see paragraph 7). The unit entered Mode 6 on October 18 and began the fuel shuffle on October 30, 1987.



b. Unit 2

Unit 2 has operated at essentially 100% during the report period with the exception of a power drop to 50% on September 27 when one of the main feedwater pumps tripped. The cause for the trip could not be confirmed.

c. Unit 3

During this inspection period, the licensee completed the performance of integrated safeguards tests of the Train "A" engineered safety features prior to entering Mode 3 on October 4, 1987, for the conduct of post-core hot functional testing. Post-core hot functional tests were performed during the period of October 4 to October 23. These tests included measurement of control rod drop times, reactor coolant flow and pump coastdown characteristics, reactor coolant system leakage rate, and pressurizer effectiveness. On October 25, 1987, the Unit 3 reactor was brought to criticality for the first time. The inspector observed the initial approach to criticality. At the end of the period, the licensee had completed low power physics tests, and remained in Mode 2 pending Commission action on the licensee's request for a full-power license.

d. Plant Tours

The following plant areas at Units 1, 2 and 3 were toured by the inspector during the course of the inspection:

- o Auxiliary Building
- o Containment Building
- o Control Complex Building
- o Diesel Generator Building
- o Radwaste Building
- o Technical Support Center
- o Turbine Building
- o Yard Area and Perimeter

The following areas were observed during the tours:

1. Operating Logs and Records Records were reviewed against Technical Specification and administrative control procedure requirements.
2. Monitoring Instrumentation Process instruments were observed for correlation between channels and for conformance with Technical Specification requirements.
3. Shift Manning Control room and shift manning were observed for conformance with 10 CFR 50.54.(k), Technical Specifications, and administrative procedures.
4. Equipment Lineups Valve and electrical breakers were verified to be in the position or condition required by



Technical Specifications and Administrative procedures for the applicable plant mode. This verification included routine control board indication reviews and conduct of partial system lineups.

5. Equipment Tagging Selected equipment, for which tagging requests had been initiated, was observed to verify that tags were in place and the equipment in the condition specified.
6. General Plant Equipment Conditions Plant equipment was observed for indications of system leakage, improper lubrication, or other conditions that would prevent the system from fulfilling their functional requirements.
7. Fire Protection Fire fighting equipment and controls were observed for conformance with Technical Specifications and administrative procedures.
8. Plant Chemistry Chemical analysis results were reviewed for conformance with Technical Specifications and administrative control procedures.
9. Security Activities were observed for conformance with regulatory requirements, implementation of the site security plan, and administrative procedures, including vehicle and personnel access, and protected and vital area integrity.
10. Plant Housekeeping Plant conditions and material/-equipment storage were observed to determine the general state of cleanliness and housekeeping. Housekeeping in the radiologically controlled area was evaluated with respect to controlling the spread of surface and airborne contamination.
11. Radiation Protection Controls Areas observed included control point operation, records of licensee's surveys within the radiological controlled areas, posting of radiation and high radiation areas, compliance with Radiation Exposure Permits, personnel monitoring devices being properly worn, and personnel frisking practices.

No violations of NRC requirements or deviations were identified.

4. Engineered Safety Feature System Walkdowns - Units 1, 2 and 3.

Selected engineered safety feature systems (and systems important to safety) were walked down by the inspector to confirm that the systems were aligned in accordance with plant procedures. During the walkdown of the systems, items such as hangers, supports, electrical cabinets, and cables were inspected to determine that they were operable, and in a condition to perform their required functions.

Unit 1

Accessible portions of the following systems were walked down on the indicated date.

<u>System</u>	<u>Date</u>
Containment Spray System, Trains "A" and "B"	September 29
Low Pressure Safety Injection Aligned for Shutdown Cooling System, Train "B"	October 5
Boron Injection Flow Paths	October 15
Diesel Generator System, Train "A"	October 27

Unit 2

Accessible portions of the following ESF systems were walked down on the indicated dates.

<u>System</u>	<u>Date</u>
Safety Injection Tanks	September 22
High Pressure Safety Injection System, Train "A"	October 7
Essential Spray Pond, Train "A"	October 15
Class 1E Battery Supply, Channels "A" and "B"	October 22
Essential Spray Pond, Train "B"	October 27

Unit 3

Accessible portions of the following systems were walked down on the indicated dates.

<u>System</u>	<u>Date</u>
Low Pressure Safety Injection Aligned for Shutdown Cooling, Train "B"	October 1
Diesel Generator System, Trains "A" and "B"	October 14
Boron Injection Flow Paths	October 25



High Pressure Safety Injection System,  
Trains "A" and "B"

October 27

Low Pressure Safety Injection,  
Trains "A" and "B"

October 27

No violations of NRC requirements or deviations were identified.

5. Surveillance Testing - Units 1, 2 and 3.

- a. Surveillance tests required to be performed by the Technical Specifications (TS) were reviewed on a sampling basis to verify that: 1) the surveillance tests were correctly included on the facility schedule; 2) a technically adequate procedure existed for performance of the surveillance tests; 3) the surveillance tests had been performed at the frequency specified in the TS; and 4) test results satisfied acceptance criteria or were properly dispositioned.
- b. Portions of the following surveillances were observed by the inspector on the dates shown:

Unit 1

<u>Procedure</u>	<u>Description</u>	<u>Dates Performed</u>
73ST-9ZZ22	Snubber Functional Test	October 16, 27
73ST-9DG05	Diesel Engine Five Year Inspection	October 15, 26-30
73TI-9ZZ09	Ultrasonic Examination of Pipe Welds	October 21
73TI-9RC01	Steam Generator Eddy Current Examinations	October 21, 23, 27

Unit 2

<u>Procedure</u>	<u>Description</u>	<u>Dates Performed</u>
36ST-9HP03	Containment Hydrogen Monitoring System	October 18
41ST-2ZZ33	Mode 1 Surveillance Logs	October 5, 18
36ST-9SB02	PPS Bistable Trip Units Functional Test	October 5
42ST-2ZZ23	CEA Position Data Log	October 27

Unit 3

<u>Procedure</u>	<u>Description</u>	<u>Dates Performed</u>
73ST-3DG01	Class 1E Diesel Generator and Integrated Safeguards Surveillance Test, Train "A"	September 22, 23
73ST-9CL03	Containment Airlock Seal Leak Test	October 1
43ST-3RC01	RCS and Pressurizer Heatup and Cooldown Rates	October 1
73ST-3SI03	Leak Test of SI/RCS Pressure Isolation Valves	October 5
43ST-3DG01	31-day Surveillance of Diesel Generator, Train "A"	October 14
36ST-3SE06	Log Power Functional Test	October 23
43ST-3ZZ23	CEA Position Data Log	October 27

No violations of NRC requirements or deviations were identified.

6. Plant Maintenance - Units 1, 2 and 3.

- a. During the inspection period, the inspector observed and reviewed documentation associated with maintenance and problem investigation activities to verify compliance with regulatory requirements, compliance with administrative and maintenance procedures, required QA/QC involvement, proper use of safety tags, proper equipment alignment and use of jumpers, personnel qualifications, and proper retesting. The inspector verified reportability for these activities was correct.
- b. The inspector witnessed portions of the following maintenance activities:

Unit 1

<u>Description</u>	<u>Dates Performed</u>
o Replace Fire Rated Barriers in Control Building	October 21
o MOVATS Testing on Turbine Trip and Throttle Valve Rotor Operator (AFA-HV54)	October 26

Unit 2

<u>Description</u>	<u>Dates Performed</u>
o Installation of a Recorder on Main Feedwater Pump Controls	October 5
o Troubleshoot "D" Channel CPC Power Supply	October 9
o PM on Fire Alarm Panel Batteries	October 18
o Installation of Scaffolding in the CEA Room	October 27

### Unit 3

<u>Description</u>	<u>Dates Performed</u>
o Troubleshoot and Repair 140' Containment Airlock Doors	October 1
o Troubleshooting Train "A" Containment Hydrogen Analyzer	October 15

No violations of NRC requirements or deviations were identified.

### 7. Reactor Coolant Pump Shaft Cracking - Unit 1

On October 15, 1987, the licensee informed the resident inspectors of findings from ultrasonic examinations of the reactor coolant pump shafts in Unit 1. The examinations were being performed in response to information from the reactor coolant pump manufacturer, KSB Pump Company (W. Germany), regarding experiences in Europe in which crack indications were found at the end of the impeller keyway and also at the end of the impeller hub. The licensee did find crack indications in the impeller keyway region in three of the four Unit 1 pumps. The most extensive crack indications were found on pump 1B, which exhibited 3 indications of at least 17mm depth and ranging up to 56mm in length. On October 24, 1987, the licensee met formally with the NRC staff in Bethesda, Md. to discuss the results of the shaft inspections, their justification for continued operation of Unit 2, the basis for startup of Unit 3 and other aspects of the licensee's action plan. On October 25, 1987, an order modifying the license for Unit 2, confirming the licensee's commitments on increased monitoring of vibration of reactor coolant pump shafts, was issued. The resident inspectors confirmed that the licensee has instituted a program for increased monitoring of vibration of the reactor coolant pump shafts in both Units 2 and 3. A Commission hearing on full power licensing of Unit 3 was postponed pending the submittal of additional information on experiences in Europe with the reactor coolant pump shafts and NRC staff review of this data. This additional information will be used to determine the impact of this problem on long term reactor operation.



8. Verification of Containment Integrity - Unit 3.

Prior to entry into Mode 4 on October 1, 1987, the inspector verified that the licensee had established containment integrity as required by Technical Specifications. The inspector:

- o Verified the operability of the containment spray system,
- o Verified that all mechanical barriers and isolation valves associated with twelve containment penetrations were in their proper position,
- o Witnessed the satisfactory completion of Procedure 73ST-9CL03, "Airlock Local Leak Rate Test".

The inspector noted that the airlock failed the initial test; however, after maintenance troubleshooting and repair, the test was conducted a second time and passed.

No violations of NRC requirements or deviations were identified.

9. Initial Criticality and Low Power Physics Testing - Unit 3.

The inspector confirmed that key tests had been performed prior to, or were scheduled to be performed after achievement of initial criticality. The following tests were reviewed to confirm that acceptable test results had been obtained.

- o 73HF-3SF08 - CEA Drop Time
- o 43ST-3RC02 - RCS Water Inventory Balance
- o 36ST-9SE04 - Excure Startup Channel Functional Test
- o 73HF-3RC09 - Post Core Reactor Coolant System Flow Measurement

In addition, the following tests were confirmed to have been completed, reviewed, and approved by the licensee, or were undergoing their final review and approval.

- o 73HF-3SF02 - Post Core CEDM Performance
- o 73HF-3RI01 - Post Core Movable Incore
- o 73HF-3RC10 - Pressurizer Spray Valve and Control Adjustments
- o 73PA-3SV01 - Vibration and Loose Parts Monitoring
- o 36ST-9SB02 - Plant Protection System Functional Test

Prior to witnessing initial criticality, the inspector reviewed procedure 72IC-3RX02, "Initial Criticality", and attended a crew briefing conducted by the reactor engineering group. The inspector verified that the procedure prerequisites had been met and verified, that both channels of source range instrumentation were





operable, and the audible count rate speaker was operating in accordance with Technical Specifications.

The procedure was found to include adequate precautions to prevent an unanticipated criticality and to ensure proper detection of the neutron multiplication during startup. The procedure established safe initial conditions for reactor startup with a high boron concentration and all control element assembly (CEA) groups fully withdrawn except for CEA Group 5, which was withdrawn to 75 inches.

The procedure for boron dilution to approach criticality was cautious and orderly. It provided for periodic sampling and laboratory analysis of the RCS and pressurizer boron concentrations and for monitoring RCS boronometer readings during boron dilution and mixing. The procedure called for Inverse Count Rate Ratio (ICRR or I/M) plots versus boron concentration and versus time during boron dilution and mixing to assist in the prediction of conditions for initial criticality. The procedure also required verification of at least one decade of nuclear instrumentation response overlap between the startup channels and the log safety channels during the final portions of the approach to critical.

The inspector witnessed the chemical analyses of boron samples prior to the final dilution to criticality and monitored the results of periodic boron samples during the final dilution. The inspector also observed the taking of count rates from both startup channels of nuclear instrumentation and the plotting of this data as an Inverse Count Rate Ratio versus boron concentration and versus time. Once the final dilution was complete, the reactor operator continued to monitor startup and log power nuclear instrumentation while mixing of the reactor coolant system took place. At 1835 PM, MST, on October 25, 1987, the reactor was determined to have achieved criticality based on the indication of a sustained increase in neutron flux on both startup and log power safety channels.

Following criticality, the reactor power was raised to approximately 10E-4% full power and stabilized for data measurements.

A review of critical data by the inspector indicated that the actual critical conditions were a boron concentration of 1014 ppm and 75 inches on group 5, compared with predicted values of 1015 ppm boron and 75 inches on group 5, which are well within 1% delta k/k of expected values. The approach to initial criticality was performed in a professional manner in accordance with preapproved procedures, and indicated a high degree of understanding by those who planned and executed the procedures.

Following initial criticality, the licensee commenced low power physics testing in accordance with procedure 72PY-3RX30. The inspector witnessed portions of the conduct of this testing, including determination of boron and rod worths, moderator temperature coefficient of reactivity and control rod symmetry. The inspector observed the operation of the licensee's reactivity

computer and determined that all portions of this system were calibrated. Review of data indicated no discrepancies.

No violations of NRC requirements or deviations were identified.

10. 10 CFR Part 21 Report on GE HFA Auxiliary Relays - Units 1, 2 and 3.

The licensee reviewed the generic matter which dealt with the incorrect operation of HFA auxiliary relays. In two cases noted in the report, the relays, which had been continuously energized with AC power, failed to provide correct contact operation when de-energized. Based on communications with the vendor and inhouse research, the licensee concluded that the problem is not applicable to the Palo Verde Nuclear Generating Station. For Class 1E equipment, GE HFA auxiliary relays are installed in the 4.16KV switchgear and 125V DC control centers energized with DC power. As determined by GE, only relays energized with AC power may fail to provide correct contact operation when de-energized.

This item is closed for Units 1, 2 and 3.

11. Review of Selected Title 10 Requirements - Units 1, 2 and 3.

The inspector reviewed the licensee's implementation of, and compliance with, selected requirements from Title 10.

The inspector reviewed the licensee's implementation of the posting requirements of 10 CFR 19.11. The inspector noted that the licensee has placed "Official NRC Bulletin Boards" at various locations around the site, which have these requirements stated verbatim.

The inspector also noted that the requirements of 10 CFR 19.12, "Instructions to Workers", are covered in the Radiation Work Practices portion of Site Access Training.

The Construction Deficiency Reporting of 10 CFR 50.55(e) has been extensively inspected by Region V since the beginning of construction activities at Palo Verde. This reporting program has been fully implemented by the licensee.

Finally, the inspector has previously verified that the licensee is in compliance with the basic requirements of 10 CFR 50.59. The licensee has submitted two annual reports since the beginning of operations. Also, an approved procedure is in place to handle tests or experiments not described in the Safety Analysis Report, although to date, it has not been invoked.

No violations of NRC requirements or deviations were identified.

12. Inspection of the Part 21 Reportability Program - Units 1, 2 and 3.

The inspector reviewed procedure ES06.08, Review of Conditions Adverse to Quality for 10 CFR 21, which establishes how the licensee handles reports of defects received from outside the licensee's

organization. It also prescribes how plant defects identified within the licensee's organization are assessed for reportability.

All correspondence from vendors concerning potential defects in vendor supplied equipment are directed to a single group (Compliance) who distributes the correspondence to applicable departments for action. Also, once a year, the licensee sends a letter to all existing and past suppliers/vendors directing them to send Part 21 notifications to this one group within the licensee's organization. This group is also responsible for assessing plant defects discovered at Palo Verde for reportability under the requirements of Part 21.

No violations of NRC requirements or deviations were identified.

13. Licensee Event Report (LER) Followup - Unit 2

The following LER associated with an operating event was reviewed by the inspector. Based on the information provided in the report it was concluded that reporting requirements had been met, root causes had been identified, and corrective actions were appropriate. The below listed LER is considered closed.

<u>LER NUMBER</u>	<u>DESCRIPTION</u>
86-20-L1	Inadvertant Actuation of Plant Engineered Safety Features Actuation System. (The cause of the actuation was inadequate pin contact insertion length in the ESFAS module).

No violations of NRC requirements or deviations were identified.

14. Followup of 10 CFR 50.55(e) (DERs)

a. (Closed) DER 87-11, "Diesel Generator Engine Fire".

This report was submitted to NRC under the requirements of 10 CFR 50.55(e) and 10 CFR 21. The fuel injector tube at the 5R injector on the 2A diesel generator became disengaged while the engine was running. Diesel fuel was sprayed on the valve cover, starting a fire and causing subsequent damage.

The root cause of this event was determined to be incorrect implementation of established manufacturing procedures for fuel injection tubes by one of the vendor's employees. The ferrule was improperly attached to the fuel tubing, thus causing it to break away more easily. According to the vendor, Cooper Energy Services, this employee was not involved in the fabrication of the original fuel lines supplied with the diesel. Therefore, only fuel injector tubes supplied by Cooper as replacements were suspect.

In addition, the licensee determined that the nuts supplied with all fuel tube assemblies (originals and replacements) were

not manufactured to SAE specifications in that they didn't have the proper 45 degree chamfer.

The licensee replaced the suspect fuel injection assemblies in all three units. Also, the tubing nuts were reworked in all fuel tube assemblies to provide the proper chamfer. This work was completed per work orders #210757, 211361, 211414, 210999, 210989, 210991, 211000, 212784, 212793, 216793, 211410.

The inspector was satisfied with the licensee's actions and this DER is closed for all three units. This also closes followup item 50-528/87-01-04.

15. Non-Licensed Staff Training - Units 1, 2 and 3.

The inspector reviewed the licensee's non-licensed staff training, focusing on the training and qualification of Quality Control (QC) inspectors. This was prompted by a recent event in Unit 1 where a weld failure in pressure boundary piping resulted in a plant shutdown. This weld failure was located in the same small leg of primary piping as a weld failure that occurred early in 1986.

The licensee has committed to Regulatory Guide 1.58, which endorses ANSI N45.2.6 - 1978, Qualification of Nuclear Power Plant Inspection, Examination and Testing Personnel, for the certification of its Quality Control (QC) personnel. Procedure 6N417.04.00, Qualification and Certification of Inspection Personnel, defines the qualification and certification program, but does not provide a focus of specific training the QC inspector should receive. It also does not specify what the QC inspector is required to know.

The inspector interviewed a sample of Level II QC inspectors to determine what experience these individuals have and what training they received. The individuals interviewed were experienced, in the particular discipline in which they certified, prior to their ANPP employment. They received additional training while employed with ANPP that enabled them to cross certify to other disciplines. The inspector reviewed the qualification and certification records of these individuals and determined that their training was adequate, as evidenced by their certification test scores. The inspector also interviewed QC supervisors responsible for developing and implementing the training program, as well as the QC manager, and learned that in some areas the training program was still being refined.

Based on these interviews, the inspector concluded that the licensee needs to better define the scope and depth of the QC inspector training program. The licensee is currently taking steps to accomplish this.

No violations of NRC requirements or deviations were identified.

16. Refueling Outage - Unit 1.

On October 2, the licensee shutdown Unit 1 for the performance of the first cycle refueling outage. The inspector reviewed the licensee's preparation for refueling and the performance of some refueling and outage related operations in progress. The activities performed by the licensee and reviewed by the inspector included the monitoring of plant conditions during refueling, refueling operations, five-year diesel generator inspection, integrated safeguards testing, steam generator eddy current testing, containment local leak rate testing, snubber functional testing, and replacement of reactor coolant pump seals, bearings, and shafts. The inspector will continue to follow the licensee's refueling activities.

17. Work Control - Unit 3.

The inspector reviewed several work packages as a followup to a concern that "old work" packages were not being reviewed prior to implementation and the possibility existed that system configurations may have changed so as to effect the accuracy of the work package instructions.

The work packages reviewed were approximately 6-9 months old and the inspector noted that the drawing revisions or manual revisions referenced were not the most current. In discussing this with several maintenance and quality assurance (QA) staff members, the inspector was informed that this condition was recognized; however, prior to the implementation of the work packages, it was a requirement that the most current drawings, manuals and test procedures be secured from document control as part of the job preparation.

The inspector confirmed procedure 30AC-9ZZ01 "Work Control" requires the work control supervisor or his designee to confirm that the most current information is contained in the package to support the work.

The inspector discussed this matter with ANPP management in the exit meeting and recommended that while no improper work package implementations were noted, in-house audits by QA be initiated to substantiate that work control procedures were being properly implemented.

No violations of NRC requirements or deviations were identified.

18. Review of Periodic and Special Reports - Units 1, 2 and 3.

Periodic and special reports submitted by the licensee pursuant to Technical Specifications 6.9.1 and 6.9.2 were reviewed by the inspector.

This review included the following considerations: the report contained the information required to be reported by NRC requirements; test results and/or supporting information were consistent



with design predictions and performance specifications; and the validity of the reported information. Within the scope of the above, the following reports were reviewed by the inspector.

Unit 1

- o Monthly Operating Report for August, 1987.

Unit 2

- o Monthly Operating Report for August, 1987.

No violations of NRC requirements or deviations were identified.

19. Exit Meeting

The inspector met with licensee management representatives periodically during the inspection and conducted an exit interview on October 29, 1987.



