

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-528/85-45

Docket No. 50-528

License No. NPF-41

Licensee: Arizona Nuclear Power Project
Post Office Box 52034
Phoenix, Arizona 85072-2034

Facility Name: Palo Verde Nuclear Generating Station - Unit 1

Inspection at: Palo Verde Site, Wintersburg, Arizona

Inspection Conducted: December 1-13, 1985

Inspector:

A. Hon. Reactor Inspector

12/19/85
Date Signed

Approved By:

I. F. Miller, Jr., Chief
Reactor Projects Section 2

12-19-85
Date Signed

Summary:

Inspection on December 1-13, 1985 (Report No. 50-528/85-45)

Areas Inspected: Routine, unannounced inspection by a regional based inspector of licensee action on power ascension testing at the 80% power plateau, power ascension test data at the 50% power plateau, and followup of inspector identified items. NRC Inspection Procedures 72302, 72608 and 92701 were covered. This inspection involved 37 inspector hours onsite by one NRC inspector.

Results: No violations or deviations were identified.

DETAILS

1. Persons Contacted

*D. B. Karner, Assistant Vice President, Nuclear Production
*W. B. Ide, Manager, Corporate QA
*C. N. Russo, Manager, Quality Audits and Monitoring
*D. R. Hawkinson, Project QA Manager, Bechtel
M. D. Suloutt, Reactor Engineer
D. Hoppes, Reactor Engineer
N. Lossing, Supervisor, Quality Investigation
T. Bradish, Supervisor, Quality Systems
D. Eastman, QA Engineer
D. LeBoeuff, QA Engineer

2. Observations of Power Ascension Testing - Load Rejection at 80% Power

The objectives of this inspection were:

- Ascertain conformance of licensee to license and procedural requirements.
- Observe operating staff performance.
- Ascertain the adequacy of test program records, including preliminary evaluation of test results.

The licensee conducted this test according to test procedure 73PA-1SF09, "RPCS Test - 80% Loss of Load" on December 4, 1985. The inspector observed and assessed the following areas:

- Procedure adequacy and adherence
- Test preparation
- Overall test crew performance and coordination
- Test Log
- Quality Assurance participation
- Management involvement

The inspector observed that the licensee conducted this test in a cautious, thorough and professional manner. Acceptance criteria were met, and test exceptions were documented.

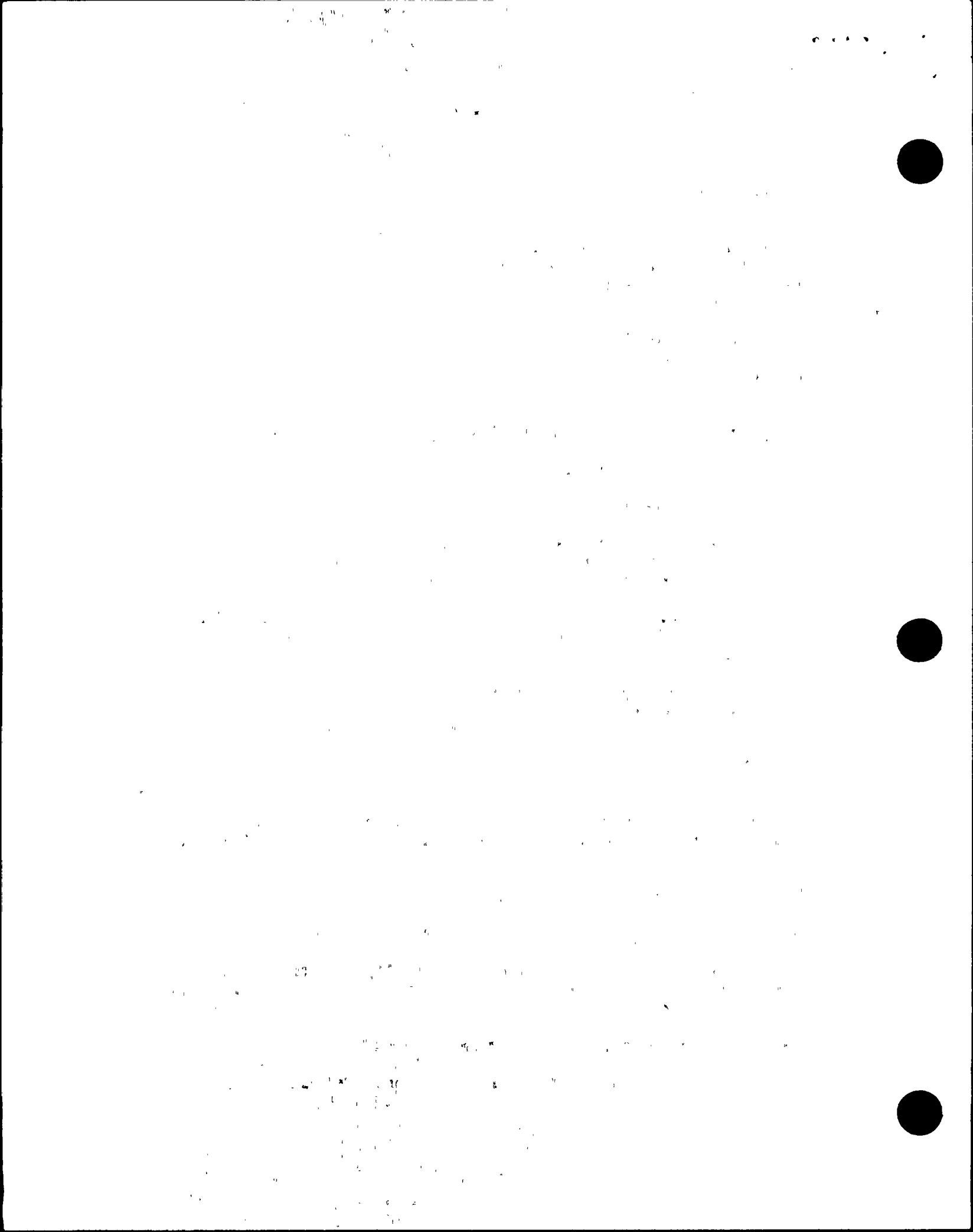
No violations or deviations were identified.

3. Data Review for Power Ascension Tests at the 50% Power Plateau

The objective of this inspection was to verify that the licensee performed the required power ascension tests, reviewed and accepted the test results according to applicable requirements and commitments.

The inspector reviewed the following documents:

- Power Ascension Test Controlling Document 72PA-1ZZ01



- Test Log
- Six completed test reports
- Five draft test reports (pending Test Results Review Group final approval)
- Sample of Test Results Review Group (TRRG) meeting minutes
- QA Document Review Checklist for Power Ascension Test Procedure

From reviewing these documents and interviewing responsible individuals, the inspector determined that test procedures and changes were approved according to pertinent administrative procedures, and test deficiencies were identified and recorded in Test Exception Reports and procedure change notices (PCN's). The preliminary results of all of the planned tests, including test exceptions, were reviewed and accepted by the TRRG, and the deferred tests were justified before the TRRG Chairman authorized power ascension above 50% power. Weakness in documentation identified during an earlier inspection on the 20% power plateau data documentation appeared to have been strengthened (85-25-01).

No violation or deviation was identified.

4. Followup of Open Items

- a. (Closed) Followup Item 84-56-02, Allegation RV-84-A-109 Followup, and 84-56-03, Startup Test Personnel Certification

Summary

During previous inspections, a Region V inspector evaluated the licensee's Hot Line followup of this concern. It was determined that some of the Startup personnel's resumes were partially incorrect. However, there was no evidence that unqualified individuals performed or accepted safety related work. Furthermore, the work performed by individuals with questionable resumes, had been reevaluated or reworked as necessary. The licensee also established a program to verify the qualifications and certifications of contractors performing quality related activities at Palo Verde. The inspector concluded that there was no safety significance attributed to this concern. Meanwhile, the NRC Office of Investigations (OI) has initiated an effort to followup the possibility of falsification of resumes. This allegation was left open pending completion of the review by OI.

Current Status

During this inspection, the inspector verified that the licensee completed this Hot Line investigation and issued an internal final report. The inspector reviewed the report and found it adequate. Furthermore, the Office of Investigations completed its investigation and closed this case on November 29, 1985 (Case No. Q5-85-001) without significant wrongdoing identified. Therefore, these two items are closed.

No violation or deviations was identified.

1. The first part of the report deals with the general situation of the country and the progress of the work during the year. It is a summary of the work done and the results obtained. It is a general statement of the work done and the results obtained. It is a general statement of the work done and the results obtained.

2. The second part of the report deals with the specific work done during the year. It is a detailed statement of the work done and the results obtained. It is a detailed statement of the work done and the results obtained.

3. The third part of the report deals with the financial statement of the work done during the year. It is a detailed statement of the work done and the results obtained. It is a detailed statement of the work done and the results obtained.

4. The fourth part of the report deals with the conclusions drawn from the work done during the year. It is a detailed statement of the work done and the results obtained. It is a detailed statement of the work done and the results obtained.

b. (Closed) Followup Item 50-528/84-56-04 Sub Contractor QA/QC
Inspector Qualifications

Summary

During a previous inspection, a Region V inspector reviewed the verification program on quality-related subcontractors who performed their own inspection activities. The inspector found that some of the active subcontractors such as Honeywell and inactive subcontractors were not included in the verification program. The licensee committed to correct this deficiency.

Current Status

During this inspection, the inspector reviewed the licensee's completed effort to resolve this item. Honeywell QC inspectors' qualification verification was completed on February 19, 1985 by Bechtel. Other subcontractor's verification was also completed in June, 1985. Furthermore, the licensee's standard contract clause was also modified to require that subcontractors verify their inspectors' qualification.

Based on the above review, the inspector determined that the licensee's response was satisfactory and this item was closed.

No violation or deviation was identified.

4. Exit Meeting

The exit meeting was conducted with the licensee personnel indicated in paragraph 1 on December 5, 1985. The scope and findings of the inspection as described in this report were discussed.

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Figure 1. The effect of the concentration of the *Agaricus bisporus* spores on the growth of *Agaricus bisporus* on the substrate. The concentration of the spores was 10⁴, 10⁵, 10⁶, 10⁷, 10⁸, 10⁹, 10¹⁰, 10¹¹, 10¹², 10¹³, 10¹⁴, 10¹⁵, 10¹⁶, 10¹⁷, 10¹⁸, 10¹⁹, 10²⁰, 10²¹, 10²², 10²³, 10²⁴, 10²⁵, 10²⁶, 10²⁷, 10²⁸, 10²⁹, 10³⁰, 10³¹, 10³², 10³³, 10³⁴, 10³⁵, 10³⁶, 10³⁷, 10³⁸, 10³⁹, 10⁴⁰, 10⁴¹, 10⁴², 10⁴³, 10⁴⁴, 10⁴⁵, 10⁴⁶, 10⁴⁷, 10⁴⁸, 10⁴⁹, 10⁵⁰, 10⁵¹, 10⁵², 10⁵³, 10⁵⁴, 10⁵⁵, 10⁵⁶, 10⁵⁷, 10⁵⁸, 10⁵⁹, 10⁶⁰, 10⁶¹, 10⁶², 10⁶³, 10⁶⁴, 10⁶⁵, 10⁶⁶, 10⁶⁷, 10⁶⁸, 10⁶⁹, 10⁷⁰, 10⁷¹, 10⁷², 10⁷³, 10⁷⁴, 10⁷⁵, 10⁷⁶, 10⁷⁷, 10⁷⁸, 10⁷⁹, 10⁸⁰, 10⁸¹, 10⁸², 10⁸³, 10⁸⁴, 10⁸⁵, 10⁸⁶, 10⁸⁷, 10⁸⁸, 10⁸⁹, 10⁹⁰, 10⁹¹, 10⁹², 10⁹³, 10⁹⁴, 10⁹⁵, 10⁹⁶, 10⁹⁷, 10⁹⁸, 10⁹⁹, 10¹⁰⁰, 10¹⁰¹, 10¹⁰², 10¹⁰³, 10¹⁰⁴, 10¹⁰⁵, 10¹⁰⁶, 10¹⁰⁷, 10¹⁰⁸, 10¹⁰⁹, 10¹¹⁰, 10¹¹¹, 10¹¹², 10¹¹³, 10¹¹⁴, 10¹¹⁵, 10¹¹⁶, 10¹¹⁷, 10¹¹⁸, 10¹¹⁹, 10¹²⁰, 10¹²¹, 10¹²², 10¹²³, 10¹²⁴, 10¹²⁵, 10¹²⁶, 10¹²⁷, 10¹²⁸, 10¹²⁹, 10¹³⁰, 10¹³¹, 10¹³², 10¹³³, 10¹³⁴, 10¹³⁵, 10¹³⁶, 10¹³⁷, 10¹³⁸, 10¹³⁹, 10¹⁴⁰, 10¹⁴¹, 10¹⁴², 10¹⁴³, 10¹⁴⁴, 10¹⁴⁵, 10¹⁴⁶, 10¹⁴⁷, 10¹⁴⁸, 10¹⁴⁹, 10¹⁵⁰, 10¹⁵¹, 10¹⁵², 10¹⁵³, 10¹⁵⁴, 10¹⁵⁵, 10¹⁵⁶, 10¹⁵⁷, 10¹⁵⁸, 10¹⁵⁹, 10¹⁶⁰, 10¹⁶¹, 10¹⁶², 10¹⁶³, 10¹⁶⁴, 10¹⁶⁵, 10¹⁶⁶, 10¹⁶⁷, 10¹⁶⁸, 10¹⁶⁹, 10¹⁷⁰, 10¹⁷¹, 10¹⁷², 10¹⁷³, 10¹⁷⁴, 10¹⁷⁵, 10¹⁷⁶, 10¹⁷⁷, 10¹⁷⁸, 10¹⁷⁹, 10¹⁸⁰, 10¹⁸¹, 10¹⁸², 10¹⁸³, 10¹⁸⁴, 10¹⁸⁵, 10¹⁸⁶, 10¹⁸⁷, 10¹⁸⁸, 10¹⁸⁹, 10¹⁹⁰, 10¹⁹¹, 10¹⁹², 10¹⁹³, 10¹⁹⁴, 10¹⁹⁵, 10¹⁹⁶, 10¹⁹⁷, 10¹⁹⁸, 10¹⁹⁹, 10²⁰⁰, 10²⁰¹, 10²⁰², 10²⁰³, 10²⁰⁴, 10²⁰⁵, 10²⁰⁶, 10²⁰⁷, 10²⁰⁸, 10²⁰⁹, 10²¹⁰, 10²¹¹, 10²¹², 10²¹³, 10²¹⁴, 10²¹⁵, 10²¹⁶, 10²¹⁷, 10²¹⁸, 10²¹⁹, 10²²⁰, 10²²¹, 10²²², 10²²³, 10²²⁴, 10²²⁵, 10²²⁶, 10²²⁷, 10²²⁸, 10²²⁹, 10²³⁰, 10²³¹, 10²³², 10²³³, 10²³⁴, 10²³⁵, 10²³⁶, 10²³⁷, 10²³⁸, 10²³⁹, 10²⁴⁰, 10²⁴¹, 10²⁴², 10²⁴³, 10²⁴⁴, 10²⁴⁵, 10²⁴⁶, 10²⁴⁷, 10²⁴⁸, 10²⁴⁹, 10²⁵⁰, 10²⁵¹, 10²⁵², 10²⁵³, 10²⁵⁴, 10²⁵⁵, 10²⁵⁶, 10²⁵⁷, 10²⁵⁸, 10²⁵⁹, 10²⁶⁰, 10²⁶¹, 10²⁶², 10²⁶³, 10²⁶⁴, 10²⁶⁵, 10²⁶⁶, 10²⁶⁷, 10²⁶⁸, 10²⁶⁹, 10²⁷⁰, 10²⁷¹, 10²⁷², 10²⁷³, 10²⁷⁴, 10²⁷⁵, 10²⁷⁶, 10²⁷⁷, 10²⁷⁸, 10²⁷⁹, 10²⁸⁰, 10²⁸¹, 10²⁸², 10²⁸³, 10²⁸⁴, 10²⁸⁵, 10²⁸⁶, 10²⁸⁷, 10²⁸⁸, 10²⁸⁹, 10²⁹⁰, 10²⁹¹, 10²⁹², 10²⁹³, 10²⁹⁴, 10²⁹⁵, 10²⁹⁶, 10²⁹⁷, 10²⁹⁸, 10²⁹⁹, 10³⁰⁰, 10³⁰¹, 10³⁰², 10³⁰³, 10³⁰⁴, 10³⁰⁵, 10³⁰⁶, 10³⁰⁷, 10³⁰⁸, 10³⁰⁹, 10³¹⁰, 10³¹¹, 10³¹², 10³¹³, 10³¹⁴, 10³¹⁵, 10³¹⁶, 10³¹⁷, 10³¹⁸, 10³¹⁹, 10³²⁰, 10³²¹, 10³²², 10³²³, 10³²⁴, 10³²⁵, 10³²⁶, 10³²⁷, 10³²⁸, 10³²⁹, 10³³⁰, 10³³¹, 10³³², 10³³³, 10³³⁴, 10³³⁵, 10³³⁶, 10³³⁷, 10³³⁸, 10³³⁹, 10³⁴⁰, 10³⁴¹, 10³⁴², 10³⁴³, 10³⁴⁴, 10³⁴⁵, 10³⁴⁶, 10³⁴⁷, 10³⁴⁸, 10<

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