



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

JUN 11 1982

DOCKET NOS. 50-528/529/530  
APPLICANT: Arizona Public Service  
FACILITY: Palo Verde, Units 1, 2 and 3  
SUBJECT: SUMMARY OF SITE VISIT BY CASELOAD FORECAST PANEL

On March 16-19, 1982, the Caseload Forecast Panel conducted a visit of the Palo Verde plant site to assess construction progress for each of the three units. (A previous visit was conducted in October 1980 for Unit 1 only.) The visit initially included a presentation of construction status by the applicant (the Agenda is shown in Enclosure 1) on the morning of March 16. The attendees for that presentation are listed in Enclosure 2. An exit interview was conducted on the morning of March 19 following a tour of the construction site the previous days. The attendees for that meeting are listed in Enclosure 3. A summary of the Panel visit is presented below.

Summary

The applicant made a presentation on the status of construction for all three units. The presentation covered each of the Agenda items shown in Enclosure 1. At the meeting, the applicant continued to project fuel load dates of November 1982, November 1983 and November 1985 for Units 1, 2 and 3, respectively. However, the applicant stated that it was in the process of reassessing its schedule to integrate the construction activities and the testing and startup phases into an overall schedule. The applicant expected to complete this assessment in a few weeks. After the presentation, we toured the facilities for each of the units. As a result of the presentation and the tour, we learned the following:

Unit 1

As of February 1982, overall construction was about 96% complete. Cable installation was about 95% complete, while terminations were about 79% complete. Construction activities were still in progress in the control room.

Of the 563 subsystems in the plant, 218 had been transferred from construction to prerequisite testing. Only one of the systems had been released to startup (for preoperational testing).

The total number of procedures required for fuel load are 614 (includes 268 preoperational tests). Of these, 198 were approved for use, 287 were prepared and in the review cycle, 65 were in preparation, and preparation of the remaining 64 was not yet started. Only one of the 268 preoperational tests had been completed.

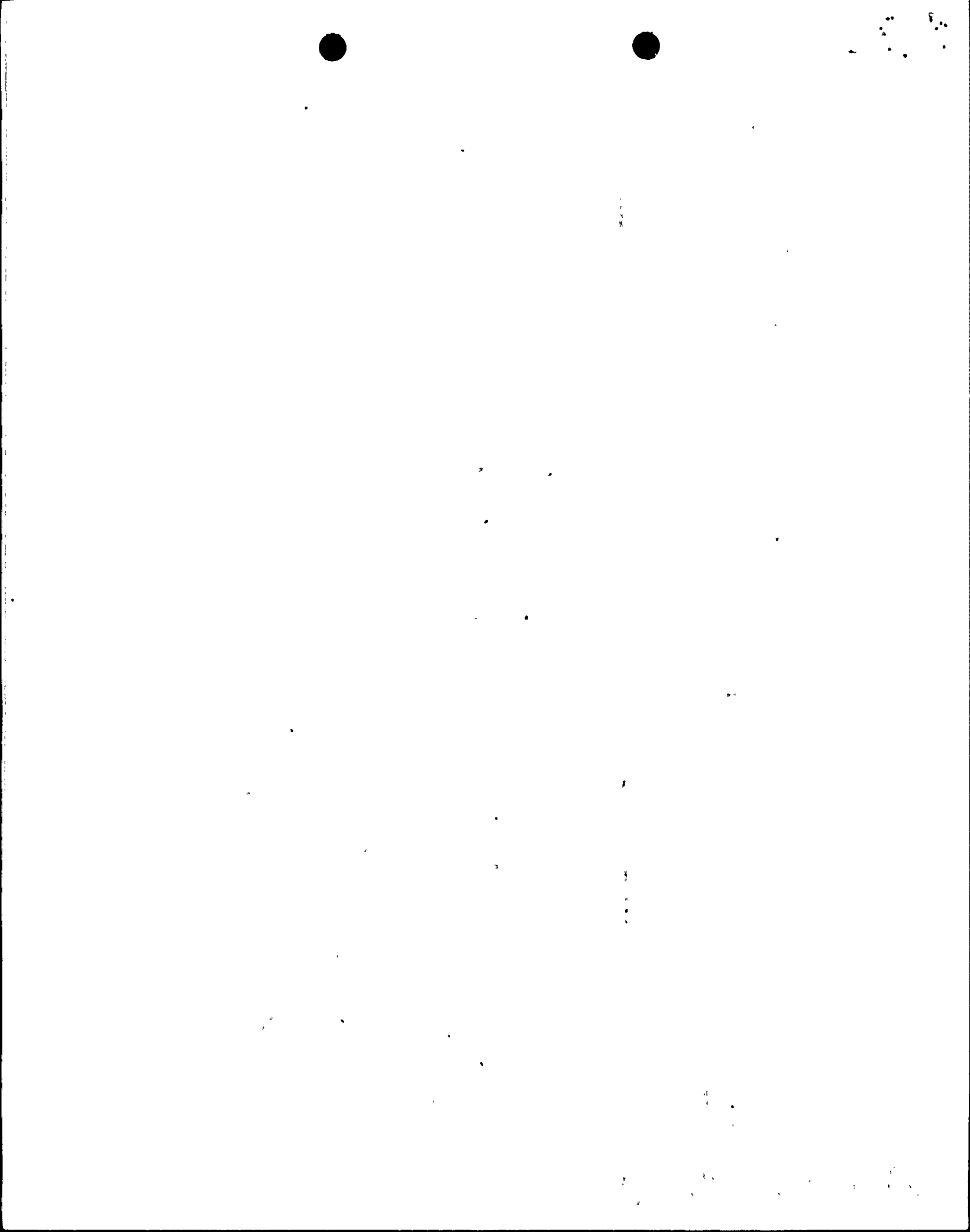
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Certified By

*Patty Henderson*

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A PDR

MEMO



The startup test group was still staffing up and was at the 79% level. (The same group will be used for startup testing of Units 2 and 3).

Units 2 and 3

As of February 1982, overall construction was about 80% and 35% complete for Units 2 and 3, respectively. The construction phase for each of the two units (2 and 3) was approximately on schedule (ahead in some areas and behind in others). Since the same startup group will be used on all three units, and the first two units are scheduled a year apart, any delay in Unit 1 preoperational testing would also affect the schedule for Unit 2.

Exit Interview

At the exit interview, we informed the applicant that we would made an assessment of the status of construction after returning to Bethesda and then present the results to NRR management. We would then inform the applicant of our findings.

Subsequent Actions

After returning to Bethesda, we performed an assessment of the status of construction and informed NRR management of our findings. Based on this assessment, we concluded that the fuel load dates for Units 1 and 2 would be later than the applicant's projected dates. This conclusion was based primarily on the status of the preoperational test program which normally has taken about two years to complete on other plants. For Unit 3, we concur with the applicant's projected fuel load date. Upon completion of our assessment, we verbally informed the applicant of our findings.

On April 22, 1982, the President of APS announced at the stockholders annual meeting that the schedule for Unit 1 will slip by a few months. He added that the precise length of the slip would not be known until an in-depth review is completed in July 1982.

Current NRR policy provides for a management meeting between NRR and an applicant when there is a difference between the applicant's and the staff's projected fuel load date, in order to get a better understanding of the difference. In keeping with this policy, and in light of the recently announced slip in the Unit 1 fuel load date by the applicant, a management meeting of this type will be arranged.

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E. A. Licitra, Project Manager  
Licensing Branch No. 3  
Division of Licensing

DL: JIR  
DE: Sennhut  
5/10/82

Enclosures:

1. Meeting Agenda
2. Meeting Attendees
3. Meeting Attendees

March 16, 1982  
March 19, 1982

DL: LB#3  
ELicitra:ph  
5/21/82

DL: AB#3  
RMS: aplia  
5/22/82

DL: ADL  
RTelesco  
5/22/82

cc: See next page

OFFICE	DL: LB#3	DL: AB#3	DL: ADL
SURNAME	ELicitra:ph	RMS: aplia	RTelesco
DATE	5/21/82	5/22/82	5/22/82



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PALO VERDE UNITS 1, 2, AND 3  
CASELOAD FORECAST PANEL SITE VISIT  
MEETING AGENDA

1. Overview of project construction schedule including progress and major milestones completed, current problems, and any anticipated problem areas that may impact the current projected fuel load dates for each unit.
2. Detailed review and current status of design and engineering effort (by major discipline) including any potential problems that may arise from necessary rework for each unit.
3. Detailed review and current status of procurement activities including valves, pipe, instruments, cable, major components, etc. for each unit.
4. Actual and proposed craft work force (by major craft), craft availability, productivity, potential labor negotiations and problems for each unit.
5. Detailed review and current status of all large and small bore pipe hangers, restraints, snubbers, etc., including design, rework, procurement, fabrication, delivery, and installation for each unit.
6. Detailed review of project schedule identifying critical path items, near critical items, amount of float for various activities, the current critical path to fuel loading, methods of implementation of corrective action for any activities with negative float, and provisions for contingencies for each unit. The estimated project percent construction complete as of February 28, 1982 for each unit.
7. Detailed review and current status of bulk quantities including current estimated quantities, quantities installed to date, quantities scheduled to date, current percent complete for each, actual versus forecast installation rates, and basis for figures for each unit.
  - (a) Concrete (CY)
  - (b) Process Pipe (LF)
    - Large Bore Pipe (2 1/2" and larger)
    - Small Bore Pipe (2" and smaller)
  - (c) Yard Pipe (LF)
  - (d) Large Bore Pipe Hangers, Restraints, Snubbers (ea)



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- (e) Small Bore Pipe Hangers, Restraints (ea)
- (f) Cable Tray (LF)
- (g) Total Conduit (LF)
- (h) Total Exposed Metal Conduit (LF)
- (i) Cable (LF)
  - Power
  - Control
  - Security
  - Instrumentation
  - Plant Lighting
- (j) Terminations (ea)
  - Power
  - Control
  - Security
  - Instrumentation
  - Plant Lighting
- (k) Electrical Circuits (ea)
  - Power
  - Control
  - Security
- (l) Instrumentation (ea)

8. Detailed review and current status of preparation of preop and acceptance test procedures, integration of preop and acceptance test activities with construction schedule, system turnover schedule, preop and acceptance tests schedule, current and proposed preop and acceptance tests program manpower for each unit.

- (a) Total number of procedures required for fuel load.
- (b) Number of draft procedures not started.
- (c) Number of draft procedures being written.
- (d) Number of procedures approved.
- (e) Number of procedures in review.
- (f) Total number of preop and acceptance tests required for fuel load.
- (g) Number of preop and acceptance tests completed.
- (h) Number of preop and acceptance tests currently in progress.
- (i) Number of systems turned over to start-up.





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9. Detailed discussion of potential schedular influence due to changes attributed to NUREG-0737 and other recent licensing requirements and status for each unit.
10. Discussion of schedular impact, if any, regarding potential deficiencies reported in accordance with 10 CFR 50.55(e) for each unit.
11. Financial commitments to complete Units 1, 2, and 3.
12. Overview of current construction management organization and activities incorporating each unit.
13. Site tour and observation of construction activities for each unit.



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LIST OF ATTENDEES  
March 16, 1982

NRC

W. Lovelace  
E. Licitra  
L. Vorderbrueggen  
G. Johnston

APS

E. E. Van Brunt  
G. C. Andognini  
D. McLane  
D. Stewart  
D. Fasnacht  
S. Saunders  
J. Roedel  
W. Quinn  
R. Badsgard  
J. Vorees

Bechtel

B. Bingham  
W. Stubblefield  
J. Zerucha  
S. Wilkening



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LIST OF ATTENDEES  
March 19, 1982

NRC

W. Lovelace  
E. Licitra

APS

S. Frost  
J. Vorees  
W. McLane  
D. Fasnacht  
W. Hartley  
E. Van Brunt  
J. Allen  
F. Gowers  
G. Reeves  
C. Boyd

Bechtel

S. Wilkening



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MEETING SUMMARY DISTRIBUTION

Document Control: 50-528/529/530)

NRC PDR  
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LB#3 File

IJLee

MLicitra

LDewey

I&E

Regional Administrator, Region I

NRC Participants: W. Lovelace  
E. Licitra  
L. Vorderbrueggen  
G. Johnston

cc: Service List (Palo Verde)



