

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos. 50-528/88-45, 50-529/88-43, 50-530/88-42

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

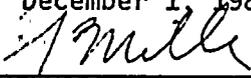
License Nos. NPF-41, NPF-51 and NPF-74

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

Meeting Location: Phoenix, Arizona

Meeting Conducted: December 1, 1988

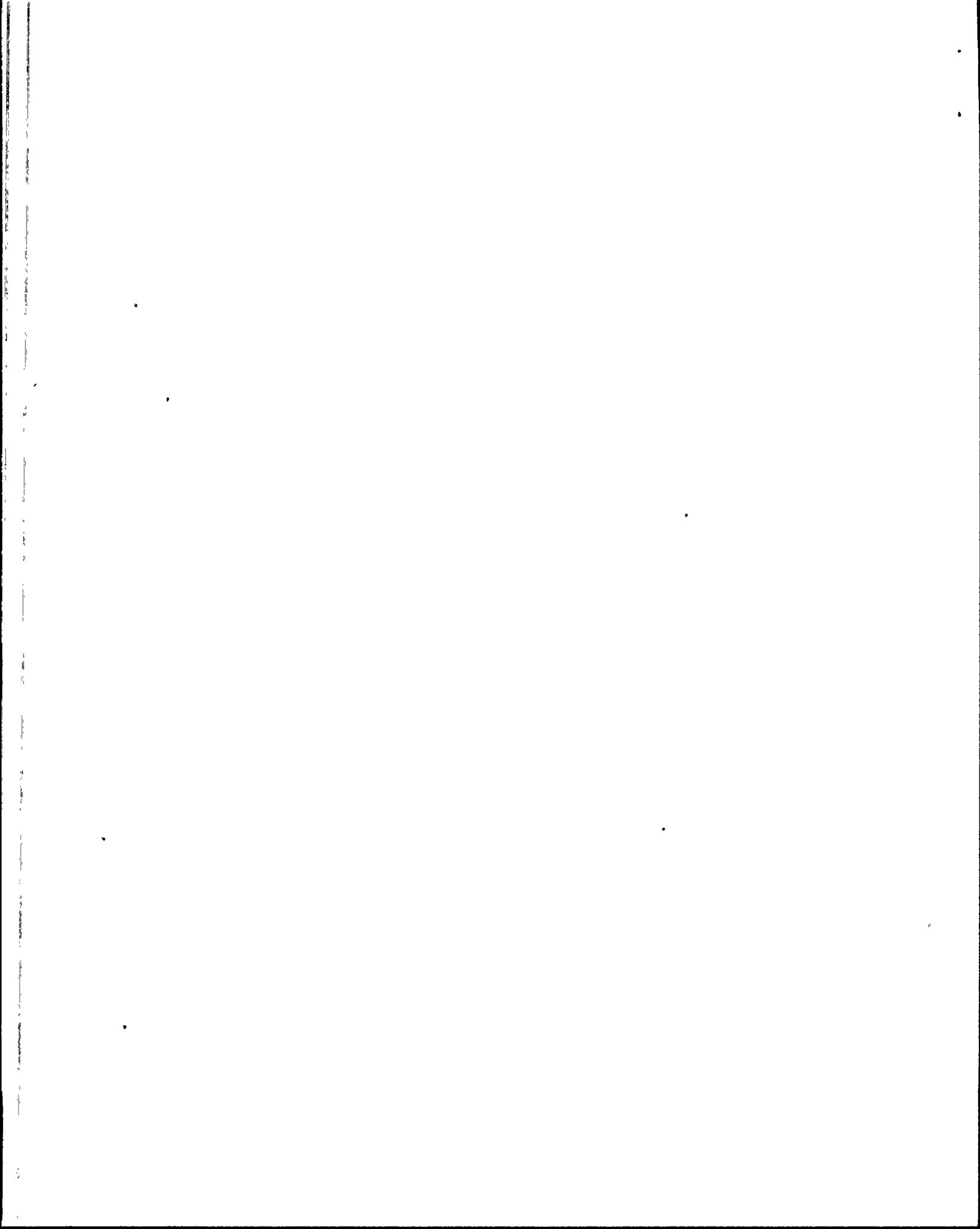
Approved by:



L. F. Miller, Chief
Reactor Projects Section II

12/23/88
Date Signed

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DETAILS

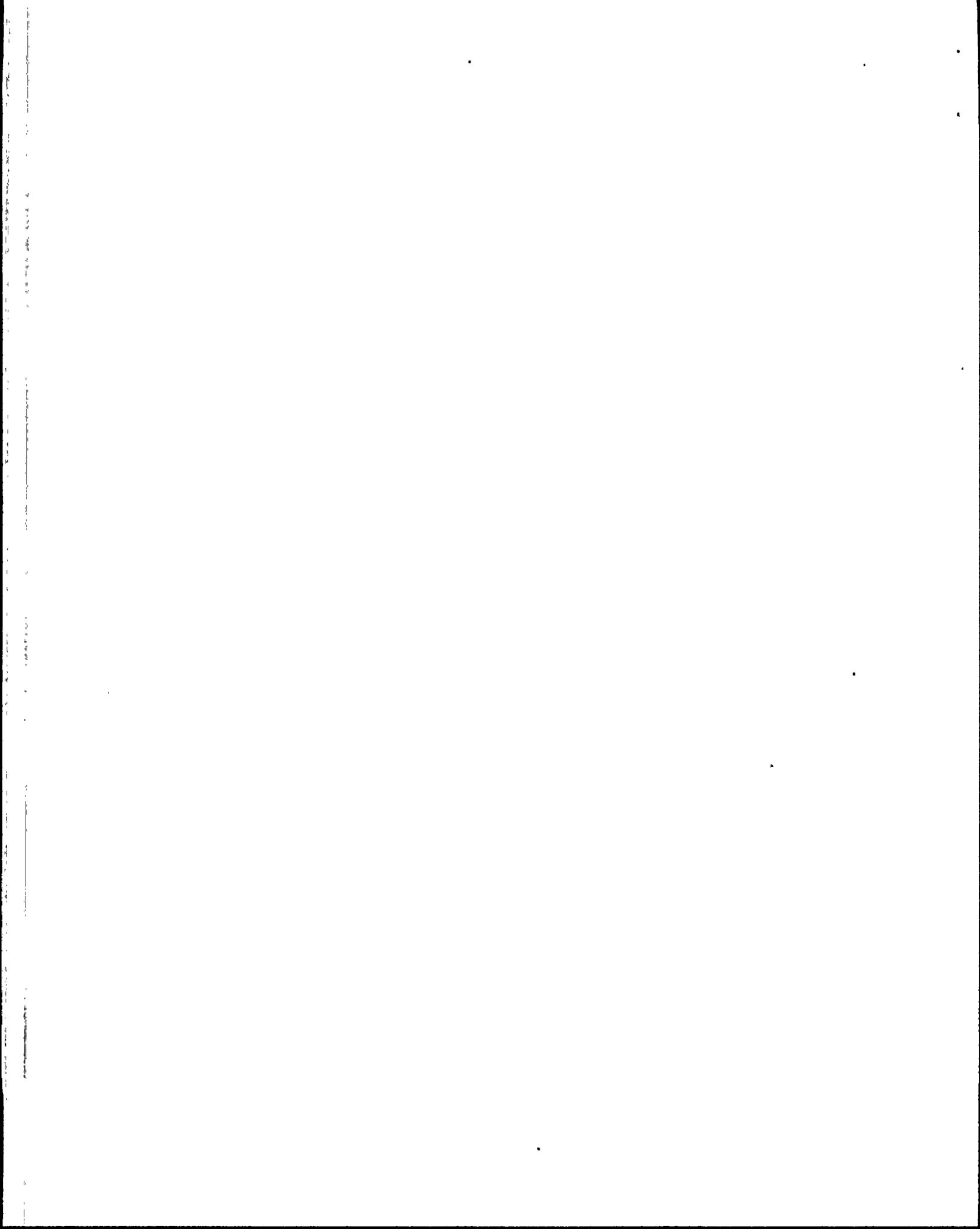
1. Meeting Participants

USNRC

J. B. Martin, Regional Administrator
D. F. Kirsch, Director, Division of Reactor Safety and Projects
J. L. Crews, Senior Reactor Engineer
G. Holahan, Acting Director, Division of Reactor Projects for Regions III, IV, V and Special Projects, NRR
T. L. Chan, Palo Verde Project Manager, NRR
L. F. Miller, Chief, Reactor Projects Section II
S. A. Richards, Chief, Engineering Section
T. J. Polich, Palo Verde Senior Resident Inspector
G. N. Cook, Public Affairs Officer, Region V
D. H. Coe, Palo Verde Resident Inspector
M. Cillis, Radiation Protection Inspector

Arizona Nuclear Power Project (ANPP)

R. Adney, Operations Manager, Unit 1
F. Buckingham, Operations Manager, Unit 2
R. Butler, Director, Standards and Technical Support
K. Clark, Compliance Engineer
J. Haynes, Vice President, Nuclear Production
W. Ide, Plant Manager, Unit 2
D. Karner, Executive Vice President, ANPP Administration
J. Kirby, Director, Site Services
J. LoCicero, Manager, Independent Safety Engineering
L. Papworth, Director, Quality Assurance
W. Quinn, Director, Nuclear Safety and Licensing
T. Shriver, Manager, Compliance
G. Sowers, Manager, Engineering Evaluations
D. Stover, Acting Manager, Nuclear Safety
O. Zeringue, Plant Manager, Unit 3
W. Barley, Acting Site Radiation Protection Manager
T. Woods, Member APS Board of Directors
R. Page, Manager Management Systems
C. Rogers, Licensing Manager
E. E. Van Brunt Jr., Consultant
T. Cockburn, Consultant
A. Gehr, Attorney
R. Matlock, Consultant, Chairman of the Nuclear Oversight Committee
D. Humenansky, Consultant
D. Canady, ANPP Public Affairs
O. M. De Michele, CEO and President, APS
R. Rouse, Compliance Engineer
P. Coffin, Compliance Engineer
J. E. Allen, Director, Engineering and Construction



Phoenix Gazette

V. Dricks

2. Management Discussion

A management meeting was held on December 1, 1988, at Phoenix, Arizona. Representatives of ANPP made the attached presentation. In addition, the significant questions and discussion during the meeting are summarized below.

3. Opening Remarks

Mr. Martin stated that the meeting was one of a continuing series to review the inventory of NRC concerns, and to discuss items needing to be discussed.

Mr. Karner responded that, clearly, improvements in Palo Verde's performance were needed, and ANPP was dedicated to achieving excellence. Considerable effort had been put into self assessment. Mr. Karner stressed his personal involvement and that of senior station managers at all levels of Palo Verde. He concluded his opening remarks by stating that Palo Verde's objective was to be the best plant in the country.

4. System Engineer Program

Mr. Sowers stated that ANPP had increased the number of system engineering supervisors from two to four positions, and increased the number of system engineers numbers by five positions. He emphasized that actions had been taken to establish and implement a complete system engineer program.

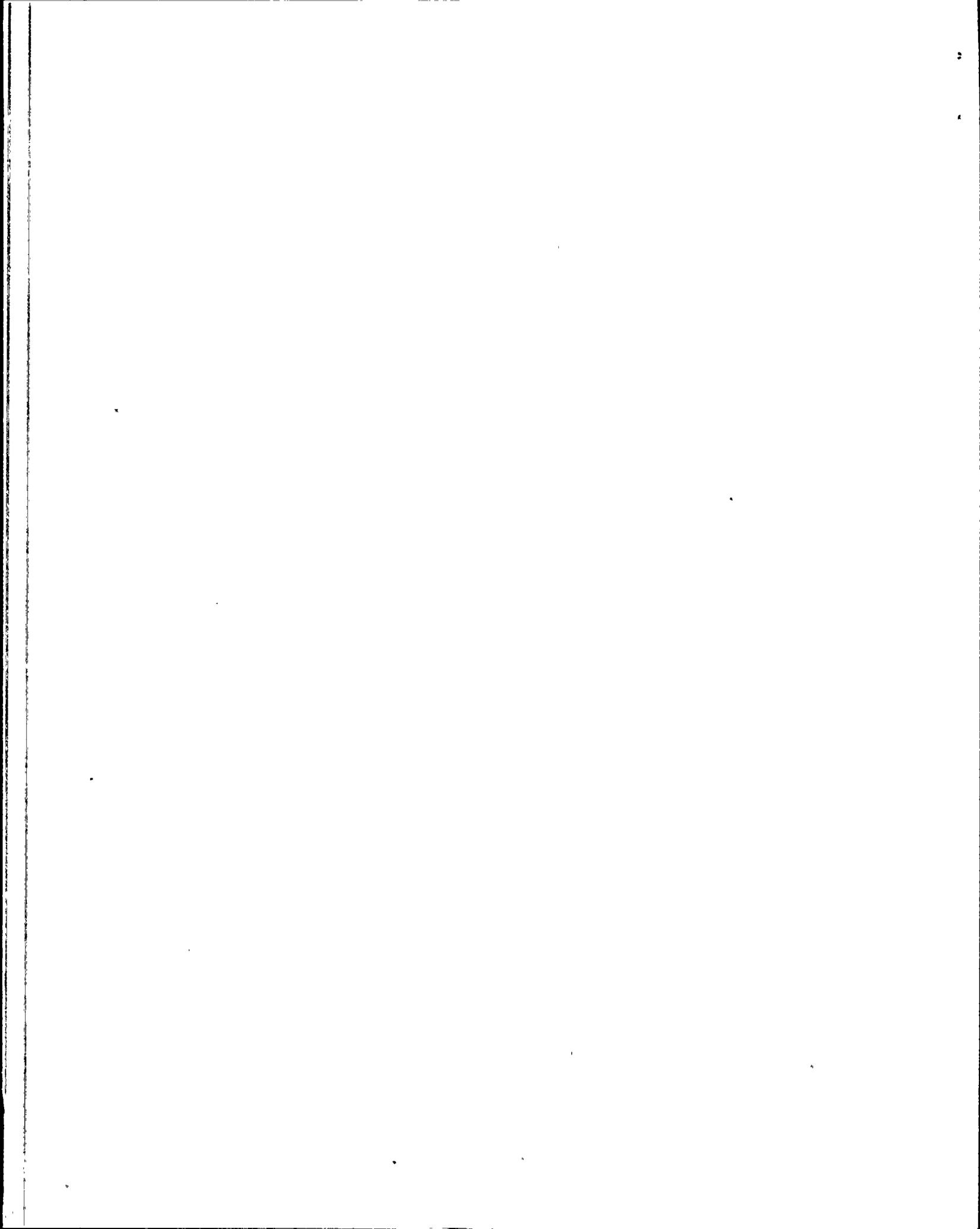
Mr. Kirsch questioned how much systems engineers at Palo Verde were involved in site modifications at the risk of not being able to get into the plant often enough.

Mr. Sowers responded that system engineer work on modifications was secondary to them getting into the plant 20-25% of their time.

Mr. Martin expressed concern about the lack of an onsite engineering group, and the risk that system engineers might be drawn into this work, and questioned whether ANPP was firmly committed to executing this program. Messrs. Karner and De Michele stated ANPP's unreserved commitment to the program.

5. Engineering Excellence Plan

Mr. J. E. Allen described the Engineering Excellence Plan, and stated that the core of it was improved technical training and reconstruction of system design bases. He added that the engineering organization intended to become the corporate expert on Palo Verde's systems. These two goals constituted the bulk of the plan's resources and commitments.



Mr. Martin responded that the NRC strongly supported the effort to improve the engineering organization and to reconstitute design bases and calculations. He recommended that the NRC revisit ANPP's progress again in six months, and recommended an independent audit of the engineering process by a completely independent organization.

Mssrs. J. E. Allen and Karner agreed to conduct such a review.

6. Radiation Protection Program

Mr. Butler described ANPP's self evaluation by W. Barley of Bartlett Nuclear which started in September, 1988.

Mr. Barley elaborated that ANPP was simultaneously trying to complete its evaluation, and also to attack known problems at Palo Verde. This evaluation was looking at how work was being done, not just the written programs for it. He affirmed that ANPP's goal was a functioning, dynamic program in the radiation protection area.

Mr. Martin observed that the radiation protection area had been particularly of concern at Palo Verde, because failure of radiation protection controls indicated weakness in the overall conduct of operations by ANPP. This weakness was primarily a management problem, not a radiation protection problem. He encouraged ANPP to hire the right person (as radiation protection manager) promptly.

Mr. Martin concluded that until a radiation protection manager was selected, the individual plant managers would need to accept that problems did exist within ANPP, and the denial of the existence of problems was, in itself, a management issue. The radiation protection incidents appeared to proceed from a poor working atmosphere and lack of respect for radioactivity. He concluded by urging ANPP to promptly complete its improvement program in this area.

Mr. Ide agreed that proper implementation of radiation protection was ANPP's responsibility.

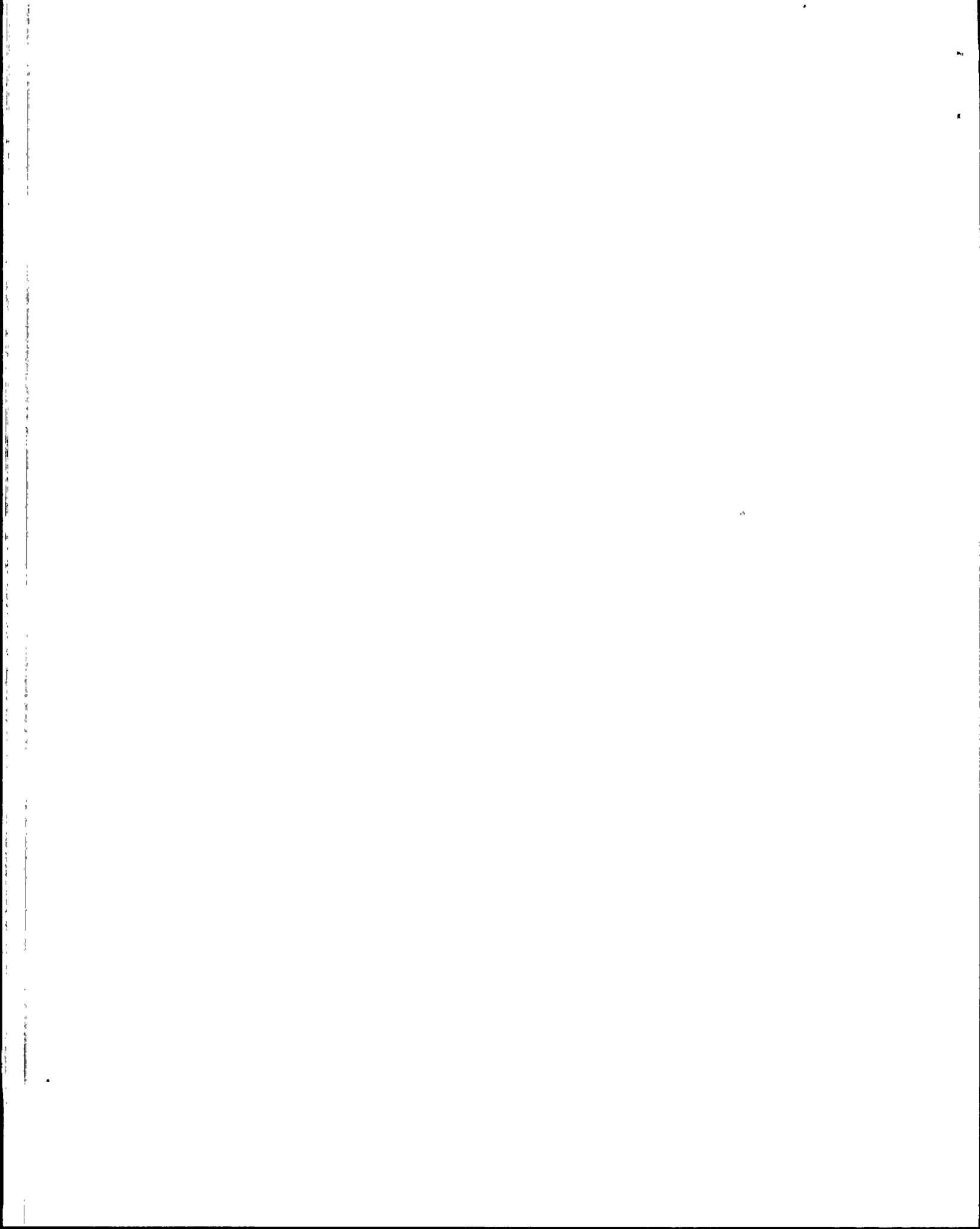
7. QA Program Improvements

Mr. Papworth stressed ANPP's change from a compliance-based to a performance-based quality assurance (QA) methodology.

Mr. Kirsch observed that it appeared that QA had performed in-line reviews which were finding problems, but the existence of these problems was not being identified to management.

Mr. Papworth acknowledged that more effort to change this was needed, and was planned.

Mr. Holahan questioned ANPP concerning their intentions to rotate more experienced personnel into the QA department.



Mr. Karner responded that ANPP was dedicated to achieving this goal, but as a longer term objective. ANPP planned to make its program work with existing core staff first:

Mr. Martin noted that actual experience in the area being audited was necessary, and questioned whether the QA organization could be fundamentally changed without the infusion of people with good operating and engineering experience. Bootstrapping the existing organization alone appeared to be a questionable approach, even though that might also be necessary. Mr. Martin also observed that the role of QA within ANPP was still ambivalent. It appeared that the prevailing QA approach was to find problems and then cooperate in their solution. The ALARA problem several months ago was an extreme case of this situation. The organization also appeared reticent to provide the problems it had found to another organization.

Mr. Martin noted the error in this approach: Until QA was willing to provide an independent, unvarnished view, QA would not be an effective contributor at ANPP. He stated that the litmus test for success for a problem finding organization like QA was that they identified problems not otherwise found by the rest of the organization. He concluded that this process was not yet happening at ANPP.

Mr. Karner agreed that QA needed to find and announce problems better, and that point was still not clear at all levels of the ANPP organization. However, he offered his opinion that the QA and line organizations did not need to be in constant friction against one another in order to have an effective QA function.

8. Nuclear Oversight Committee

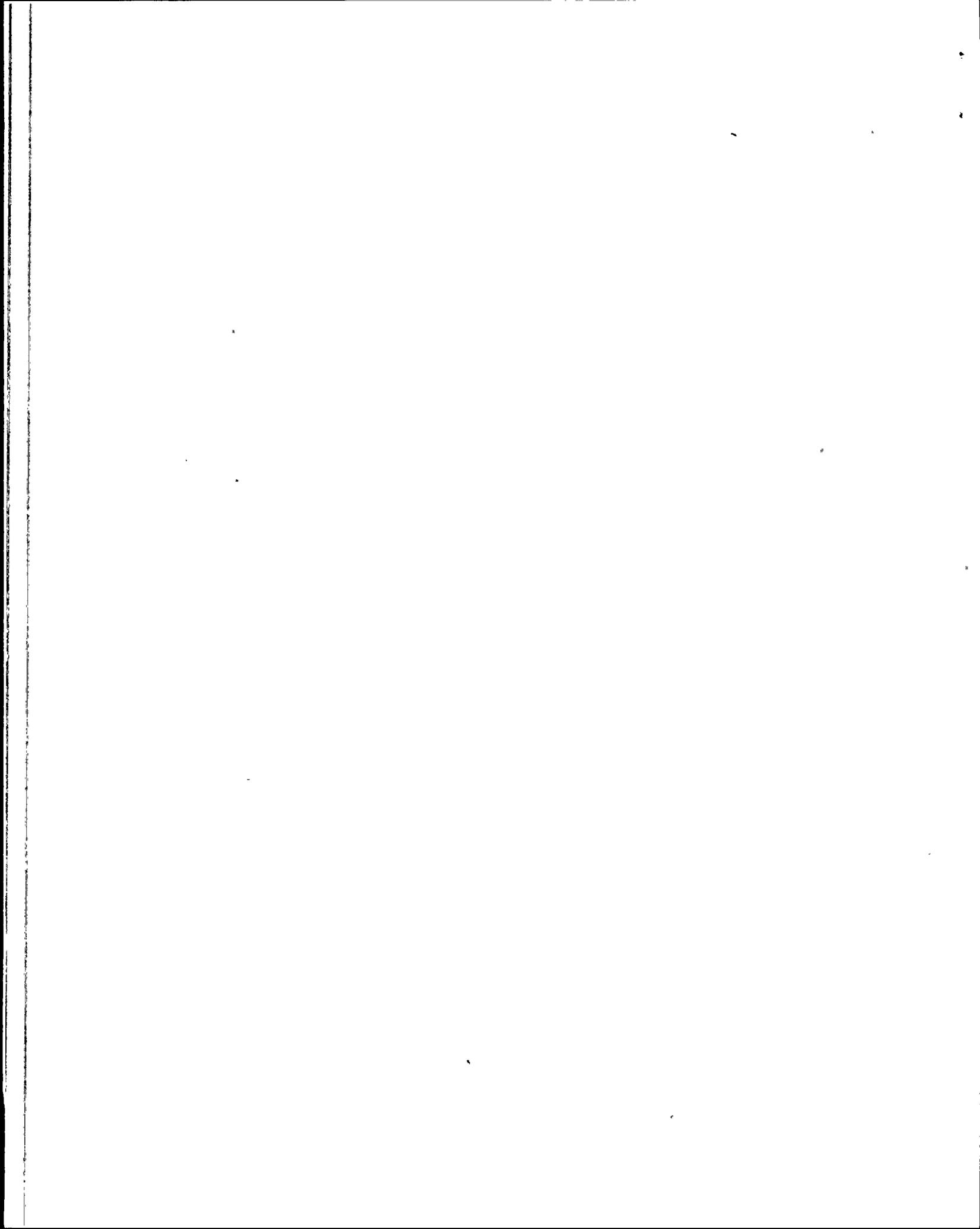
Mr. Karner described the committee, its composition, and charter. It was created by resolution of the Board of Directors; its Chairman (B. Matlock) reports to Karner to advise him of issues that the committee considers important regarding Palo Verde. Two meetings had been held and five more were scheduled for 1989. D. DeYoung, D. Hetrick, D. Heuse, S. Levy, E. Wilkinson, and T. Woods are the members.

The chairman of the committee, Mr. Matlock, reported that it appeared that the committee was well staffed, independent, and had the attention of ANPP management.

9. Incident Investigation Program

Mr. Butler noted that root cause investigations would be the responsibility of line managers.

Mr. Martin observed that this was another area where strong emphasis on self-criticism was essential. The purpose of the incident investigation must be kept in focus, namely to learn from it. One indicator of the competence of an organization was its capacity to learn from experience. The NRC's evaluation of ANPP's evaluation in the events of the last couple years was that a much greater degree of self criticism was needed.



10. Performance Indicators/Summary

Mr. Martin noted that it was clear that there had been improvement in the ANPP performance indicators, and that Units 2 and 3 had done well, but Unit 1 had not. Beyond the statistics, the kinds of things which had occurred at Unit 1 were disturbing. Finally, the issues such as radiation protection failures indicated that at all three units there was considerable need for further improvement.

Mr. Karner responded that ANPP had done hard assessments, and was developing and implementing programs which were needed. ANPP was dedicated to achieving the necessary results.

Mr. De Michele added his endorsement of Mr. Karner's commitment.

Mr. Holahan concluded by stating that the Nuclear Oversight Committee, Engineering, and system engineering programs all appeared well founded, but he was less optimistic regarding the quality assurance and radiation protection areas, and remained skeptical.

Mr. Martin summarized the NRC's position. He agreed with Mr. Holahan that some of the programs looked good, but whether they achieved their intent remained to be seen, and depended on ANPP. He expressed reservations about QA; and to some degree, radiation protection. In QA ANPP's expectations might not be sufficiently high, and in RP the cooperation and assistance of operations and maintenance in solving these problems might not be sufficient.

