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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION  
HAROLD R. DENTON, DIRECTOR

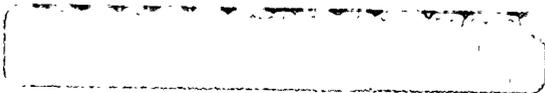
In the Matter of	)	
	)	Docket No. 50-529
ARIZONA PUBLIC SERVICE	)	(10 C.F.R. § 2.206)
CO., ET AL.	)	
(Palo Verde Nuclear Generating	)	
Station Unit 2)	)	

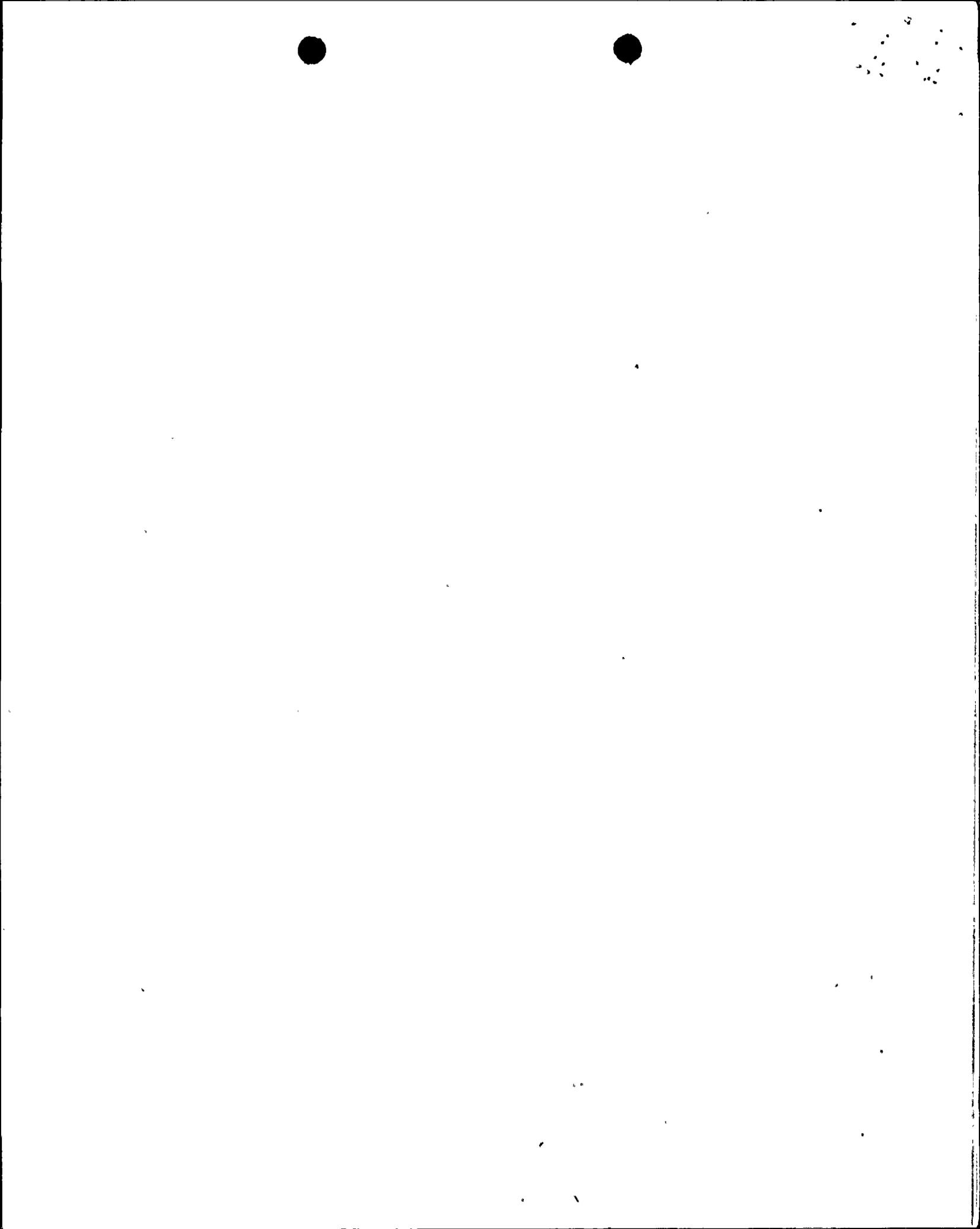
DIRECTOR'S DECISION UNDER 10 CFR 2.206

INTRODUCTION

By a Petition dated January 12, 1986, an Addendum to the Petition dated January 21, 1986, a filing with the Commission dated February 1, 1986, and a letter to D. F. Kirsch (Region V) dated April 22, 1986, Barbara S. Bush and Myron L. Scott, on behalf of the Coalition for Responsible Energy Education (Petitioner), allege that there exists considerable evidence of management incompetence due to an alleged continuing pattern of managerial and administrative failures in the Palo Verde Nuclear Generating Station (PVNGS) of the Arizona Public Service Company, et al. (Licensees). According to Petitioner, the management problem will be exacerbated by the startup and operation of Unit 2 which may overburden management and by significant economic and schedular pressures present at PVNGS. <sup>1/</sup> Petitioner is concerned that these

1/ The Licensees' Project Manager for PVNGS is the Arizona Nuclear Power Project (ANPP).





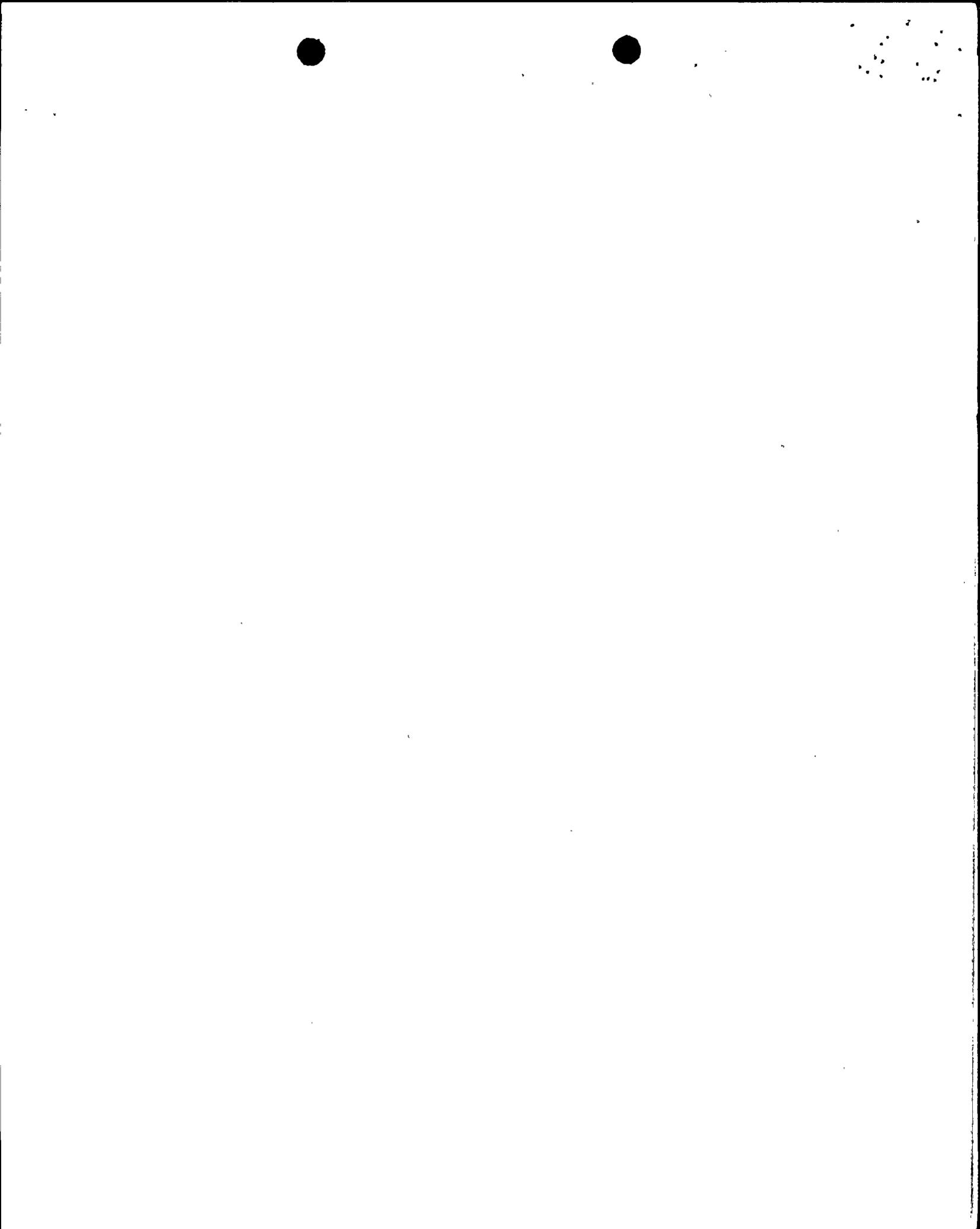
matters will affect safe conduct of low-power operation and power ascension of PVNGS Unit 2. <sup>2/</sup>

The Petitioner requests suspension of nuclear operation and the low power operating license for PVNGS Unit 2 and that further licensing activity for Unit 2 be deferred pending completion of hearings on the issues raised in the Petition. Additionally, Petitioner requests that a Special Management Inspection Oversight Team be constituted by the NRC to confirm that the Licensees have demonstrated improvements in the area of management competence and administrative controls sufficient to assure that issues raised in the Petition have been satisfactorily resolved. Also requested is a systems-interaction and reliability study and such organizational studies and procedure changes as may be deemed appropriate.

On February 18, 1986, I acknowledged receipt of this Petition and informed the Petitioner that action will be taken within a reasonable time. I also informed the Petitioner of the reasons I did not believe any immediate actions were needed with regard to this Petition. On February 5, 1986, I requested the views of the Licensees on the issues raised in the Petition. The Licensees responded on February 11, 1986. My Decision in this matter follows.

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<sup>2/</sup> A second Petition was filed by Petitioner on February 3, 1986, which requested an immediate suspension of PVNGS Unit 1 operation based on allegedly inadequate containment leak rate testing. Petitioner sought retesting of the facility and the public release of all containment leak rate test data including that for PVNGS Unit 2. This Petition will be addressed at a later date. As stated in my February 18, 1986 letter to Petitioner, immediate action with respect to these allegations is not deemed necessary.



## BACKGROUND

Arizona Public Service Company (APS) was issued Construction Permits Nos. CPPR-141, CPPR-142 and CPPR-143 for Palo Verde Nuclear Generating Station (PVNGS), Unit 1, 2 and 3 respectively, by the Nuclear Regulatory Commission on May 25, 1976, which authorized construction of these units. The Palo Verde plant is located near Phoenix, Arizona and consists of three essentially identical 1,300 MWe pressurized water reactors of Combustion Engineering System-80 design and related facilities for use in the commercial generation of electric power.

The early construction and NRC inspection activities at Palo Verde were routine. A formal licensee performance appraisal program began in 1980 and a NRC Regional Evaluation of Licensee Performance in August 1980 found generally satisfactory performance by APS. This appraisal program later became the present Systematic Assessment of Licensee Performance (SALP).

A NRC Regional Construction Assessment Team inspection was conducted during January to February 1981. The team found strength in construction management and the QA/QC program and weakness in maintenance and storage. Inspection Report 50-528/8102 (April 6, 1981).

A SALP for the period June 1980 to June 1981 was conducted in September 1981 which concluded that the Licensees had achieved improvements in previously identified areas of weakness and, in general, had good performance in design and construction activities. A second SALP was performed in April 1983 for the period of July 1981 to February 1983.



The assessment determined that the Licensees' activities at PVNGS were conducted in a cooperative, professional and safety-conscious manner during that period, and that Licensees had obtained satisfactory SALP ratings. <sup>3/</sup>

A special Construction Appraisal Team (CAT) inspection was conducted during September and October 1983 which identified problems in the areas of pre-operational testing, a lack of fully effective final inspection by QC, and control of component work after construction. At about the same time period, the NRC investigated an allegation for improper signing of electrical termination cards. As a result of the CAT inspection and the investigation of the allegation, a civil penalty was imposed on APS.

In response to the deficiencies identified by the CAT inspection and an APS QA/QC audit, APS management temporarily suspended all prerequisite and pre-operational testing in November 1983. Problems prompting the suspension mostly involved the control of equipment status and the quality of test documentation. A major reexamination of test documentation was conducted to provide increased confidence in tests results. Testing was resumed in a gradual way, beginning in February 1984, after changes in organizational procedural controls had been implemented and a confirmation of the quality level of previously completed testing work had been established.

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<sup>3/</sup> In the 1983 SALP Report, Licensees had five category 1 ratings, six category 2 ratings, and no category 3 ratings. See footnote 6 for a description of these ratings.



A third SALP was conducted in May 1984 for the period of March 1983 to March 1984. <sup>4/</sup> The weaknesses found in the September 1983 CAT inspection were reflected in this SALP, and the SALP Board noted that appropriate corrective action had been implemented.

A special team inspection was conducted during August to September 1984 to followup on the previous CAT inspection findings and to assess APS actions to increase the level of management control and improvement in QA by the operations and startup groups. The team found the startup work controls associated with maintenance and testing activities to be generally satisfactory and the corrective actions to the CAT findings appeared to have been effective.

On December 31, 1984, a Unit 1 Low Power License was issued after the readiness review was completed by NRC. Initial criticality was achieved on May 25, 1985. A special NRC inspection team was present to conduct an intensive continuous surveillance of shift operations before, during and subsequent to initial criticality. The team found the initial criticality was conducted by Licensees in a cautious and professional fashion. The Unit 1 full power license was issued on June 1, 1985.

An enforcement conference was held in August 1985 as a result of deficiencies identified in the Post Accident Sampling System (PASS). The Licensees' failure to fully comply with the technical specification regarding

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<sup>4/</sup> During this SALP period, Licensees had two category 1 ratings, ten category 2 ratings, and two category 3 ratings. See footnote 6 for a description of these ratings.



PASS was also discussed. A civil penalty in the amount of \$50,000 was assessed for the PASS violation. NRC Enforcement Action 85-87 (October 8, 1985).

In September 1985, a Confirmatory Action Letter was issued to ensure that Unit 1 would remain shutdown until the auxiliary spray system reliability issue was resolved with NRR. This problem was remedied during a September 20, 1985 meeting between Licensees and NRR in which Licensees presented satisfactory corrective actions and compensatory measures to return to power. (PVNGS Unit 1 Meeting Minutes of January 1, 1986).

During October to November 1985, a special team inspection was conducted on Unit 1. The team found the Licensees' organization to be competently staffed and functioning in an acceptable manner. Weaknesses were identified in the areas of design change and control of temporary modifications.

On December 9, 1985, a Unit 2 low power license was issued after the readiness review was completed by the NRC. On December 19, 1985, a fourth SALP was issued (as later partially amended by letter of April 11, 1986 from Kirsch to Van Brunt) for the period of April 1984 to September 1985. The Board found the overall performance to be satisfactory. <sup>5/</sup> On February 13, 1986, Unit 1 was declared to be in

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<sup>5/</sup> During this SALP period, Licensees had four category 1 ratings, fifteen category 2 ratings, and no category 3 ratings. See footnote 6 for a description of these ratings.



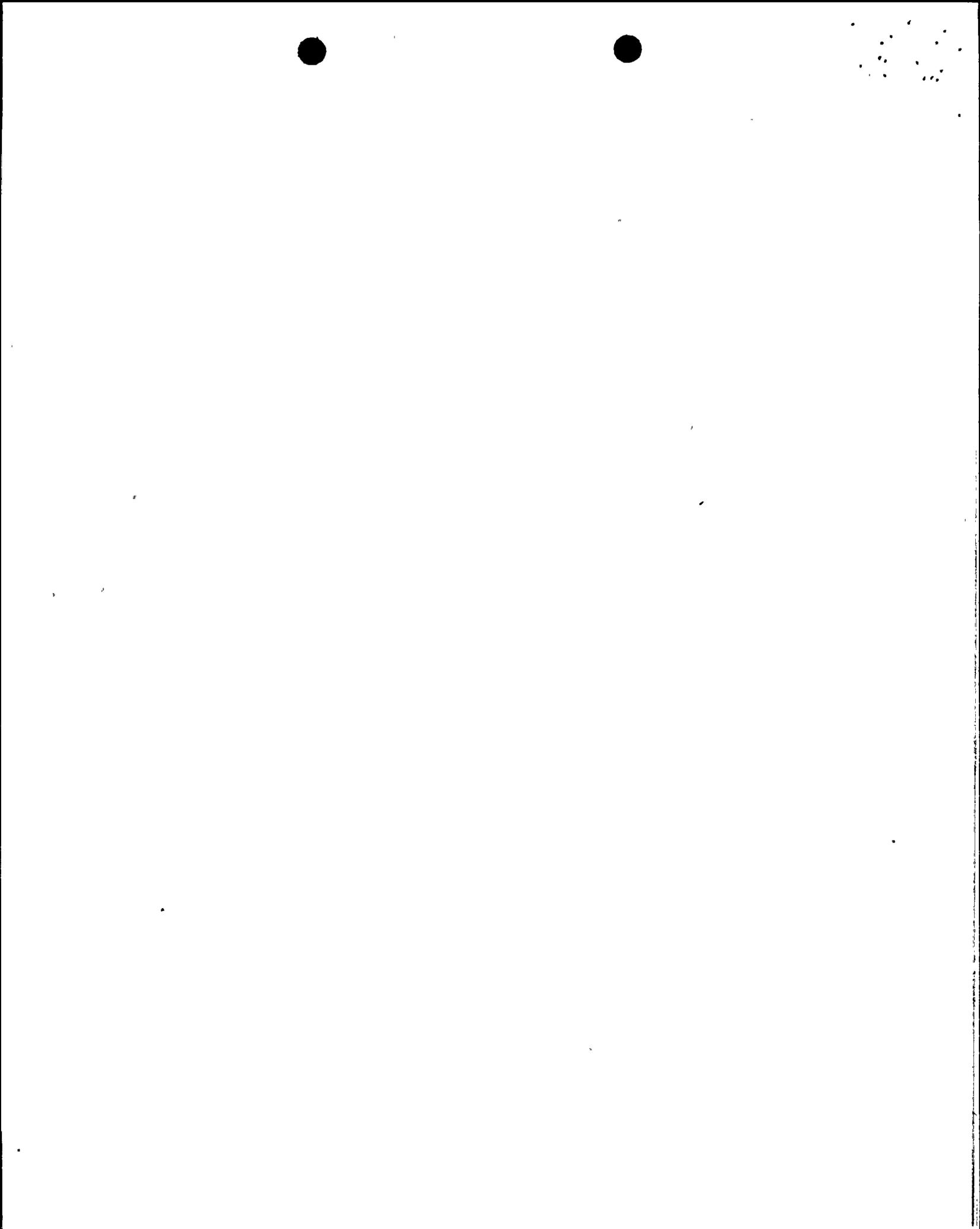
commercial operation by the Licensees after the completion of the power ascension test program.

On April 24, 1986 a full power license was issued for Unit 2. At the time of this issuance, we had fully reviewed Petitioner's claims and had concluded that the operation of Unit 2 would not jeopardize the public health and safety. The reasons for our conclusion are set forth herein.

PRINCIPAL ISSUES RAISED BY PETITIONER

Before discussing each of the major areas identified in the Petition, it is important to recognize that the Petition provides little, if any, new information. The Petition consists primarily of excerpts taken from NRC SALP reports (essentially the 1985 Report) and from NRC findings documented in NRC Inspection Reports. These SALP Reports include summaries of these inspection findings which resulted in violations. Corrective action is required for every violation of NRC requirements. See 10 CFR § 2.201. Consequently, all of the contentions in the Petition which stem from inspection findings have been the subject of corrective action and have been or will be resolved.

Rather than attempting a detailed discussion of each of the many contentions contained in the Petition, they are categorized into seven principal areas which are examined below in order to permit their reasoned consideration:



I. LICENSEES MANAGEMENT COMPETENCE IDENTIFIED IN SALP REPORTS

In support of the Petitioner's claim of management incompetence, the Petitioner lists a number of issues which the NRC had identified in previous SALP Reports as being potential problems at the Palo Verde facility. Since the Petition relies heavily on the SALP reports as a basis for its claim of management incompetence, a description of this process will be helpful to place the Petitioner's concerns in perspective. The SALP process is the mechanism by which the NRC on a periodic basis systematically assesses the overall performance of a licensee. For each assessment period (generally 12 to 18 months) a Board of NRC officials evaluates, in accordance with pre-established attributes and rating guidance, the licensee's performance for each of the various, pre-established functional areas and rates the licensee's performance in each area. The Board also compares the licensee's performance for the current period with that of the previous assessment period and identifies, for further follow-up and inspection, any areas where the licensee's corrective action to improve performance has not been fully effective. The Board assesses trends, if any, observed in the licensee's performance within the reporting period. Each functional SALP area is rated as Category 1, 2 or 3. <sup>6/</sup> Problems more severe than Category 3 would

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<sup>6/</sup> The SALP program is described in NRC Draft Manual Chapter 0516. The ratings are defined as follows:

(FOOTNOTE CONTINUED ON NEXT PAGE)

have had immediate attention which could have included a shutdown of the facility.

It is important to keep in focus that NRC inspection activities routinely identify deficiencies in the performance of construction, pre-operations and operations activities at nuclear power plants. Deficiencies are summarized in the SALP reports. Discussing previously identified deficiencies in the SALP report is normal agency practice in order to provide examples of the Board's assessment bases. It is also normal for the SALP Board to characterize the area in which these deficiencies are found as needing additional management attention. Most functional areas do identify selected issues that require additional or continuing management attention, even when the functional area is rated

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(FOOTNOTE CONTINUED FROM PREVIOUS PAGE)

Category 1: Reduced NRC attention may be appropriate. Licensee management attention and involvement are aggressive and oriented toward nuclear safety; licensee resources are ample and effectively used so that a high level of performance with respect to operational safety and construction quality is being achieved.

Category 2: NRC attention should be maintained at normal levels. Licensee management attention and involvement are evident and are concerned with nuclear safety; licensee resources are adequate and are reasonably effective such that satisfactory performance with respect to operational safety and construction quality is being achieved.

Category 3: Both NRC and licensee attention should be increased. Licensee management attention or involvement is acceptable and considers nuclear safety, but weaknesses are evident; licensee resources appeared to be strained or not effectively used so that minimally satisfactory performance with respect to operational safety and construction quality is being achieved.



as a Category 2, indicating that management attention to the area is generally sufficient. The mere identification of a need for increased management attention to specific deficiencies within functional areas does not necessarily undermine the program to such an extent as to give rise to a significant safety concern. In each case where the SALP Board identifies an area needing additional management attention, the concern is resolved in the SALP report or a subsequent inspection report.

The specific issues that Petitioner claims have been identified in the SALP reports which establish management incompetence include: (a) poor SALP performance in the functional area of Quality Program and Administrative Controls; (b) the lack of improvement in performance based upon the SALP process; and (c) a lack of integrated assessment of all SALP functional areas.

A. Poor SALP Performance Ratings in the Area of Quality Program and Administrative Controls.

The Petitioner contends that since this functional area received the lowest rating (a marginal Category 2) in the SALP 1985 Report, the Licensees have marginal quality performance that reflects adversely on management competence. Petition at 19-20.

This assessment is incorrect. The rating of Category 2, even a marginal Category 2, indicates that, in general, the management attention and effectiveness in this functional area was satisfactory. Moreover, although the SALP Board stated that several weaknesses existed in this functional area, it found that improvement had already been made for



some of them at the time the weaknesses were found. <sup>7/</sup> In addition, several areas of positive Licensee actions and improving conditions in this functional area were also found, as noted in the following excerpts from the 1985 SALP Report:

- "Corrective actions taken by APS management in response to NRC concerns in the preoperational test program have resulted in a substantial increase in quality, through direct management involvement." Report at 15.
  
- "In general the onsite review committee has carried out its responsibilities in an acceptable manner and appeared to be improving throughout the SALP period as an efficient working body as experience was gained with a plant in the operational phase." Report at 16.
  
- "Licensee actions to improve compliance have been aggressive, and involved continuous corporate management involvement." Report at 16.

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<sup>7/</sup> For example, the details of LER's had been improved and corrective action had been taken to ensure timely fire watch tours and to minimize the number of technical specification violations. Report at 11, 17.

The 1985 SALP Report thus establishes that, while the NRC had some continuing concerns in the functional area of Quality Program and Administrative Controls which would be addressed within the established NRC regulations to obtain acceptable corrective action, there had also been effective management involvement in resolving concerns. On balance, Licensees' management response in this area, while not as effective or aggressive as it has been in other areas, does not provide sufficient basis to conclude incompetence.

B. Lack of Improvement in Licensees' Performance as Reflected by the SALP Reports.

Petitioner asserts that there has been little measurable improvement from the previous SALP reporting period, and that the lack of an improving trend is indicative of an overall failure by Licensees' management to ensure correction of previously identified weaknesses. Petition at 17-18, 24. The Staff disagrees since there in fact has been an improving trend in Licensees' SALP ratings. A comparison of the rating for the functional areas for SALP 1984 and 1985 shows that: (1) SALP 1985 had four category 1 areas while SALP 1984 had only three; (2) SALP 1984 had two areas rated as Category 3 while SALP 1985 had no Category 3 areas; and (3) the SALP 1984 report had six areas with a declining trend and one area with an improving trend, while SALP 1985 had only one area with a declining trend and four areas with an improving trend. 1985 Report at 3; 1984 Report at 3.

To support its claim of a lack of improvement by Licensees, Petitioner has listed a number of excerpts from the 1984 and 1985 Reports



which it contends establish a pattern of errors affecting a wide range of functional areas and is rooted in inadequate or unresponsive management. Petition at 20-23. However, a review of these excerpts establishes that the list is not as long as Petitioner suggests. <sup>8/</sup> Although some concerns in this list remain, this is not unusual since NRC SALP reports traditionally have had long lists of criticisms. The purpose for the thoroughness of SALP is to evaluate a licensee's performance and identify areas where additional management attention is needed to ensure that improved performance is effected. The system appears to be working at PVNGS since Licensees have already taken corrective action on most of the concerns identified in the SALP 1985 report and the balance will be assessed and completed during continuing NRC inspections. Moreover, the areas reported in SALP that are in need of additional or continued management attention are offset, at least in part, by several other areas where the Licensees have exhibited good management practices or aggressive corrective action. <sup>9/</sup>

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<sup>8/</sup> Five of these excerpts (the first, third, sixth, seventh and fourteenth) were taken out of context in that the NRC comments are not critical of Licensees' management and, in some instances, describe management improvements; three of the excerpts (the twenty first, twenty fourth and twenty fifth) are repeated concerns included in prior excerpts; and in seven of the excerpts (the second, fifth, eighth, ninth, twelfth, thirteenth, and seventeenth), the SALP report stated that corrective action had already been taken by the Licensees.

<sup>9/</sup> For example, see 1985 SALP report at 4-5, 8-10, 12, 15-17, 20-21, 28.



For these reasons, an overview of both the positive and negative comments included in Licensees' SALP reports does not establish inadequate or unresponsive management, or a lack of improvement in Licensees' performance.

C. Lack of Integrated Assessment of All SALP Functional Areas

Although the Petitioner appears to concede that the specific issues identified individually are not of great concern, it insists that when taken together they show cause for concern by forming a pattern that reflects directly on Licensees' management competence. Petition at 6, 28, 41, 45. As part of this claim, Petitioner contends that the NRC's oversight activities are piecemeal and fail to take into account this pattern of recurring deficiencies. Petition at 3, 10, 20 and 21.

This theory is directly refuted, however, by the SALP reports for PVNGS which do not establish a pattern adversely reflecting on management competence at PVNGS. An overview of the activities within each functional area and an overview of all the functional areas taken together are precisely the purpose of the SALP process. Concerns that are common to more than one SALP period would be noted in subsequent SALP reports, and any trends would be specifically addressed in the overall review of Licensees' performance and be included in the Summary of Results section in each report. 10/

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10/ For example, for SALP 1985, subcontractor quality assurance was noted as a recurring issue from previous SALPs and was specifically listed in the overall review comments. 1985 SALP Report at 3.

The SALP process therefore provides an integrated assessment for judging Licensees' management competence.

## II. COMMUNICATIONS DIFFICULTIES

To further support its claim of management incompetence, the Petitioner contends that Licensees have displayed a pattern of inadequate communications, both internally within its organization, and with the NRC, which has adversely affected all of the SALP functional areas. Petition at 44-45 and February 1, 1986 filing at 4-5. <sup>11/</sup> To substantiate this claim, the Petitioner cites the following instances of communication failure:

- (1) A notification of a possible tampering event that occurred on the morning of August 15, 1985, which was not made to site management until the afternoon of August 16, 1985. The NRC did not consider the notification to be timely. Reference: Inspection Report 50-528/85-26.
- (2) LER 50-528/85-24 was not fully accurate in that the procedure for surveillances on fire doors had not been permanently revised to in-

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<sup>11/</sup> Petitioner criticizes the NRC for not viewing these instances together in their total perspective. Id. However, the Petitioner again has failed to recognize that the overall perspective is gained from the SALP process and that each of the instances it cites regarding communication lapses were considered individually and from an overall perspective in that document.



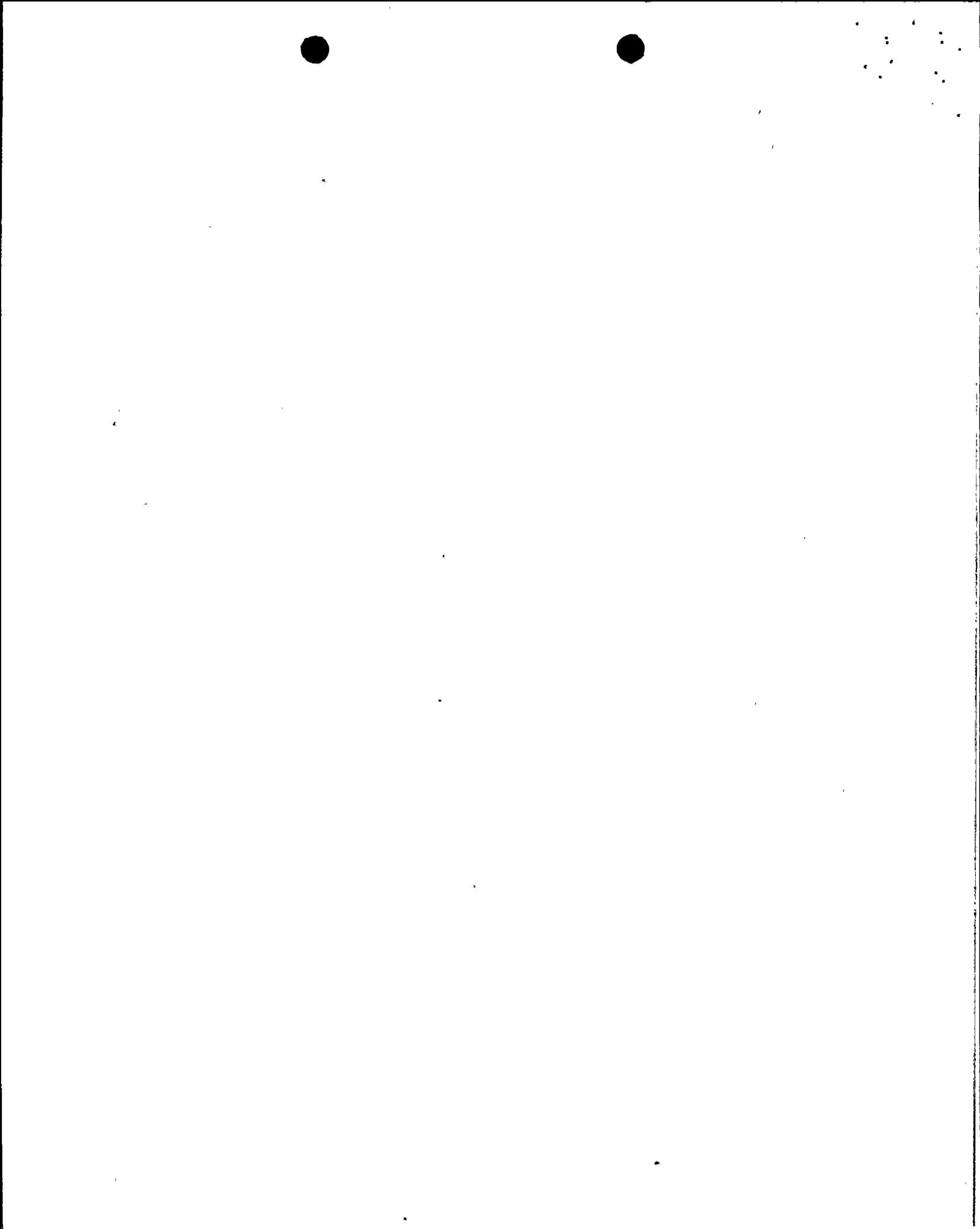
clude the missing doors. A procedure change notice was issued, but was not included in the revision number 2 of the procedure. Reference: Inspection Report 50-528/85-26.

- (3) The PASS for PVNGS Unit 1 was not operational as stated in the June 13, 1985, letter from ANPP to the NRC. Reference: Letter to E. E. Van Brunt from John B. Martin, dated October 8, 1985 (PASS Civil Penalty).
- (4) Incomplete and late LER submittals. Reference: SALP 1985 and NRC Enforcement Conference Minutes, August 28, 1985.

These instances of alleged poor communication are too few in number to show pervasive and significant weaknesses in communications at PVNGS. <sup>12/</sup> Moreover, they are offset by other activities reported in the 1985 SALP report reflective of good communications. For example, as reported in the 1985 SALP Report: management had initiated daily interdepartmental planning meetings which were effective in improving overall communications (Report at 5); a common work control center had

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<sup>12/</sup> Additional apparent indications of communication lapses listed in the 1985 SALP report not cited by the Petitioner include a report of a September 12, 1985 auxiliary spray system problem where Licensees' report to the NRC lacked information (Report at 19) and a statement concerning the plant operations area that "...communications between the Operations and other plant departments such as Chemistry and Radiation Protection Departments, still needs improvement." (Report at 5).



been implemented to coordinate activities among maintenance work groups (Report at 7); unit superintendent meetings for maintenance had been conducted daily (Report at 7); and the frequent presence of management at the site had provided effective communications to Licensees' staff (Report at 5, 15).

In their totality, therefore, the SALP reports do not reflect poor communications at PVNGS. Furthermore, what must be appreciated regarding this issue is that the Palo Verde nuclear project incorporates efforts to build and operate three nuclear plants. This involves thousands of people doing thousands of tasks. Under these circumstances, there obviously will be isolated incidents of communication difficulties, but in the absence of a pervasive breakdown in communications that adversely affects control of licensed activities, initiation of show-cause proceedings and the other relief requested by Petitioner are clearly inappropriate.

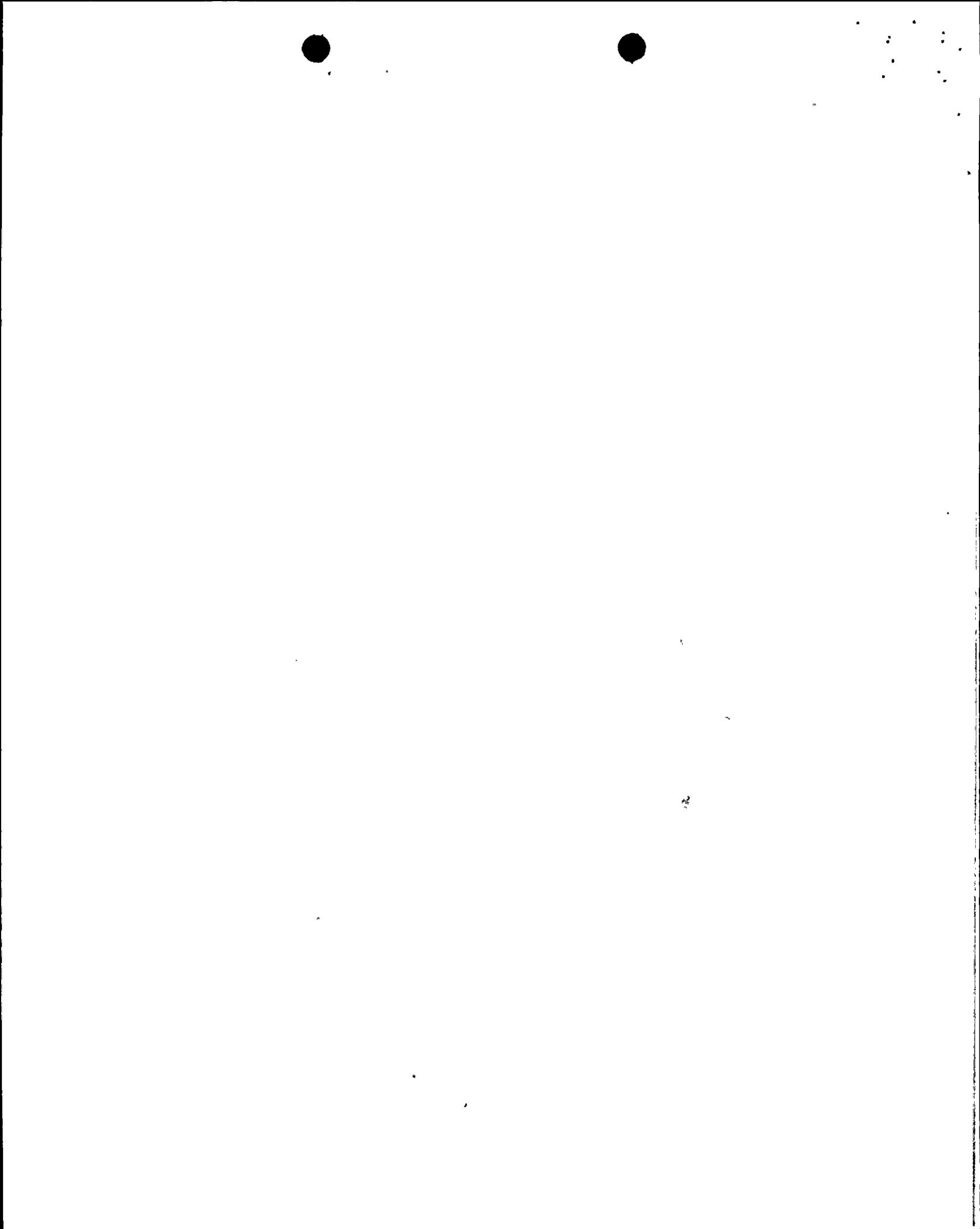
### III. ACRS CONCERN ON AUXILIARY PRESSURIZER SPRAY SYSTEM AND SYSTEM RELIABILITY STUDY

In another issue raised by the Petitioner, Licensees are accused of willfully disregarding recommendations by the NRC Advisory Committee on Reactor Safeguards (ACRS) concerning: (1) the Auxiliary Pressurizer Spray System (APSS) at PVNGS and (2) the need for a systems' reliability study. Petitioner bases this information on a November 10, 1985 newspaper article. Petition at 35.

A review of what occurred, however, reveals that the ACRS' recommendations were not disregarded. The APSS issue arose during a



discussion at the November 5, 1985 ACRS subcommittee meeting about single failures and improper functioning of the APSS at Unit 1. Several members of the subcommittee stated that they had concerns regarding the APSS and the rapid depressurization capability of Palo Verde Units 1, 2 and 3. Two ACRS members subsequently set forth these concerns in a January 13, 1986 memorandum to the Commission. Staff responded in a memo dated March 11, 1986 to Chairman Palladino that reasonable assurance of rapid depressurization capability had been established for PVNGS by a reanalysis performed by Licensees of a steam generator tube rupture (SGTR) accident. For that accident scenario, Licensees had assumed that the APSS was not available and that the pressurizer vent would be used for accident mitigation. March 11, 1986 memo at 1. See also Supplement 9 to Staff's SER at 5-9. The Staff reviewed this analysis, performed its own independent evaluation, and determined that the consequences of the SGTR accident are within acceptable limits and that the pressurizer vent system meets safety grade standards. Id. In addition to evaluating Licensees' reanalysis of an SGTR accident, Staff reviewed the enhancements at Palo Verde Units 1, 2 and 3 to the APSS (e.g., a redundant level instrumentation, assured power to motor operated valves, and automatic realignment of charging pump flow), and concluded that reasonable assurance exists that the APSS would perform its function of achieving plant cold shutdown in accordance with the guidelines of Branch Technical Position RSB 5-1. SSER 9 at 5-8, 5-9, and 5-13.

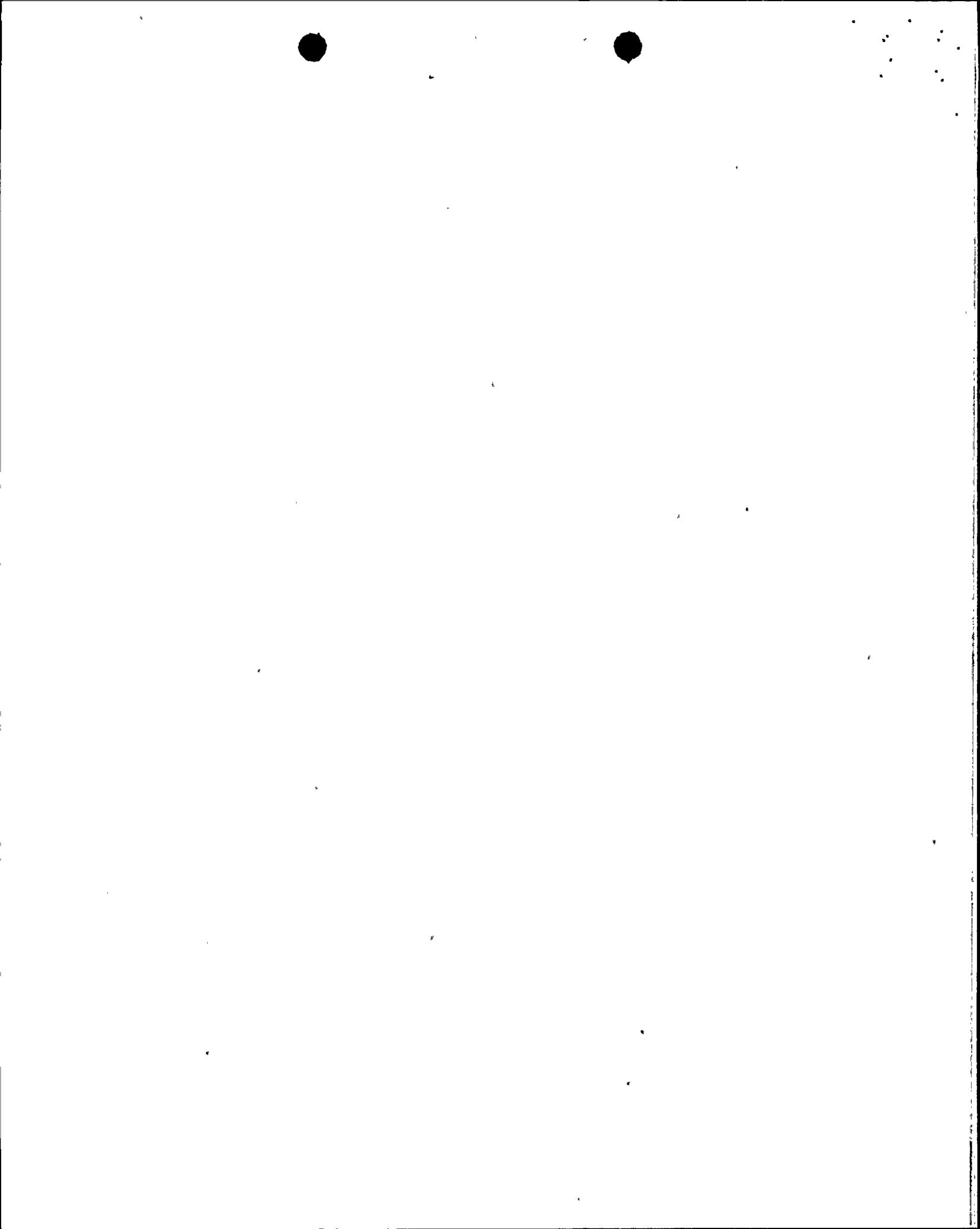


Based upon these evaluations, Staff is able to conclude that the Palo Verde design for achieving reactor coolant system depressurization meets current regulatory requirements. A decision regarding the need for power operated relief valves at Combustion Engineering plants is being deferred and incorporated into the technical resolution of USI A-45. March 11, 1986 Staff memo to Chairman Palladino at 2, 3 and 5.

The issue of a systems' reliability study arose during the full ACRS committee meeting on November 7, 1985. A committee member asked whether the Licensees had expanded their studies of system interaction and system reliability as the ACRS had recommended in their letter to the Commission of December 15, 1981 supporting licensing of Palo Verde Units 1, 2 and 3. Staff responded that this issue had already been dealt with in Supplement No. 1 of the Palo Verde SER (February 1982) which stated:

"Item A-17 in Appendix C to the SER discusses the ongoing staff efforts to reach a generic resolution to the issue of systems interactions in nuclear power plants. It is expected that the development of systematic ways to identify, rank and evaluate systems interactions will go further to reduce the likelihood of inter-system failures resulting in the loss of plant safety functions and, hence, improve systems reliability. After resolution of this generic issue, the staff will determine where additional studies by Arizona Public Service Company are required." SSER-1 at 18-2.

Because the generic resolution is still in process, the Staff has not yet been able to define the appropriate studies and their scope for the Palo Verde facility. The ACRS has not modified its December 1981 letter



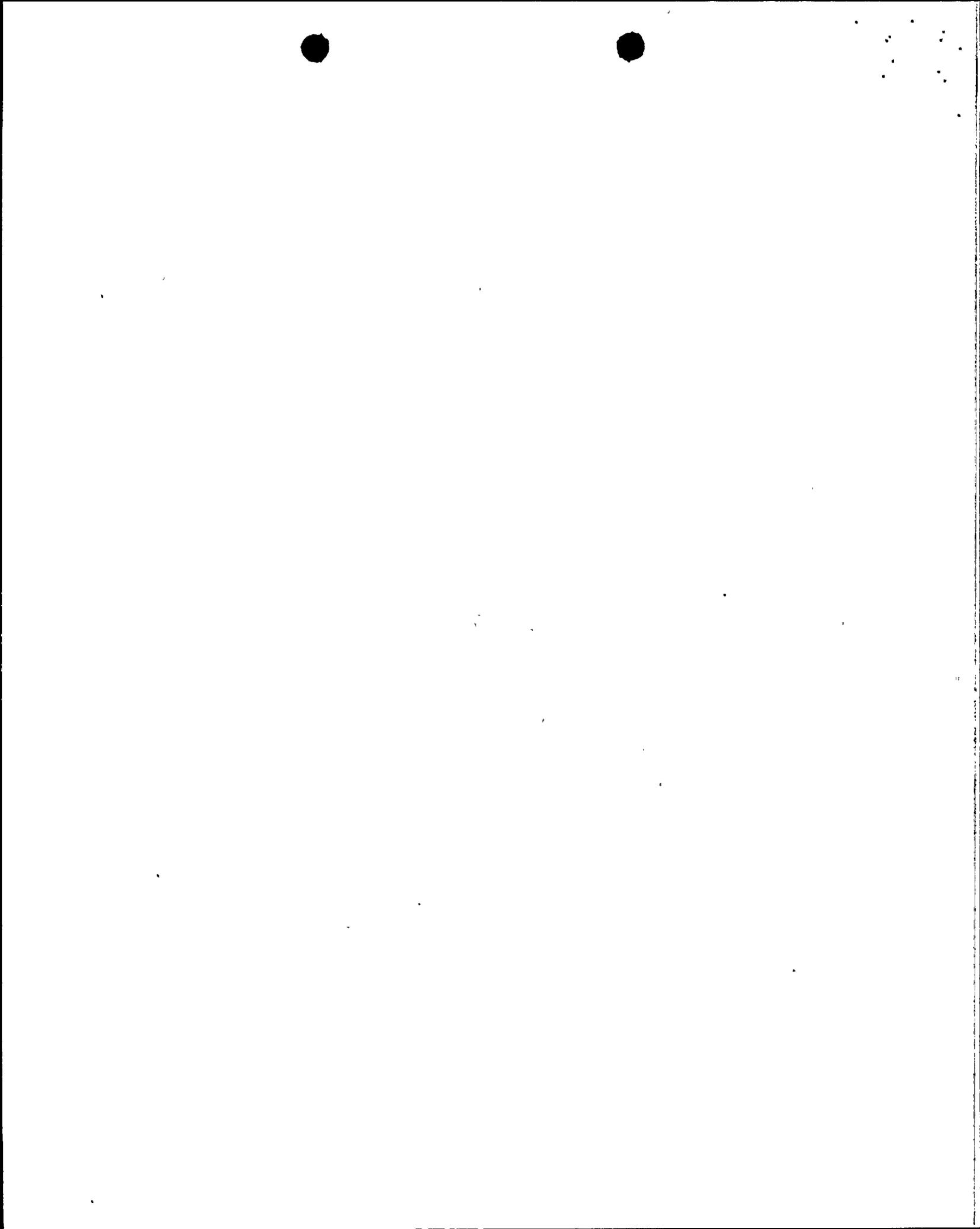
supporting licensing Palo Verde 1, 2 and 3, nor has it made any additional recommendations conditioning its support.

#### IV. THE POST ACCIDENT SAMPLING SYSTEM PROBLEM

The Petitioner contends that an NRC enforcement action (EA 85-87, October 8, 1985) involving PVNGS's Post Accident Sampling System (PASS) demonstrates a tendency toward inadequate or incompetent performance by management to worsen an otherwise minor plant problem. Petition at 28-30.

The PASS experience is an example of poor management by the Licensees. As documented in the SALP 1985 Report, Inspection Report 50-528/85-22 and a letter to E. E. Van Brunt from John B. Martin dated October 8, 1985 (Notice of Violation and Proposed Imposition of Civil Penalty), ANPP management failed to establish a system to ensure that the PASS work was appropriately performed, reviewed and documented. As a result of these deficiencies, the PASS was not operable under certain limited conditions and did not meet the requirements of the operating license, and a civil penalty for \$50,000 was imposed. October 8, 1985 letter from J. B. Martin to E. E. Van Brant.

Nevertheless, the PASS problem was adequately remedied and the NRC effectively utilized its enforcement powers for this matter to have the Licensees address broader issues in performance, including treatment of design changes, management of task force activities and accuracy of reports to the NRC. See letter to the Director, Office of Inspection and Enforcement from E. E. Van Brunt, dated November 7, 1985. Moreover,



Licensees' PASS problems were not atypical since similar inspection findings have been observed at Southern California Edison Company, Baltimore Gas and Electric, Northeast Nuclear Energy Company, and Sacramento Municipal Utility District. The installation and successful testing of PASS has proven to be a significant challenge for most of the nuclear industry.

Under these circumstances, it cannot be said that the PASS problem establishes Licensees' incompetence or demonstrates a trend of managerial error.

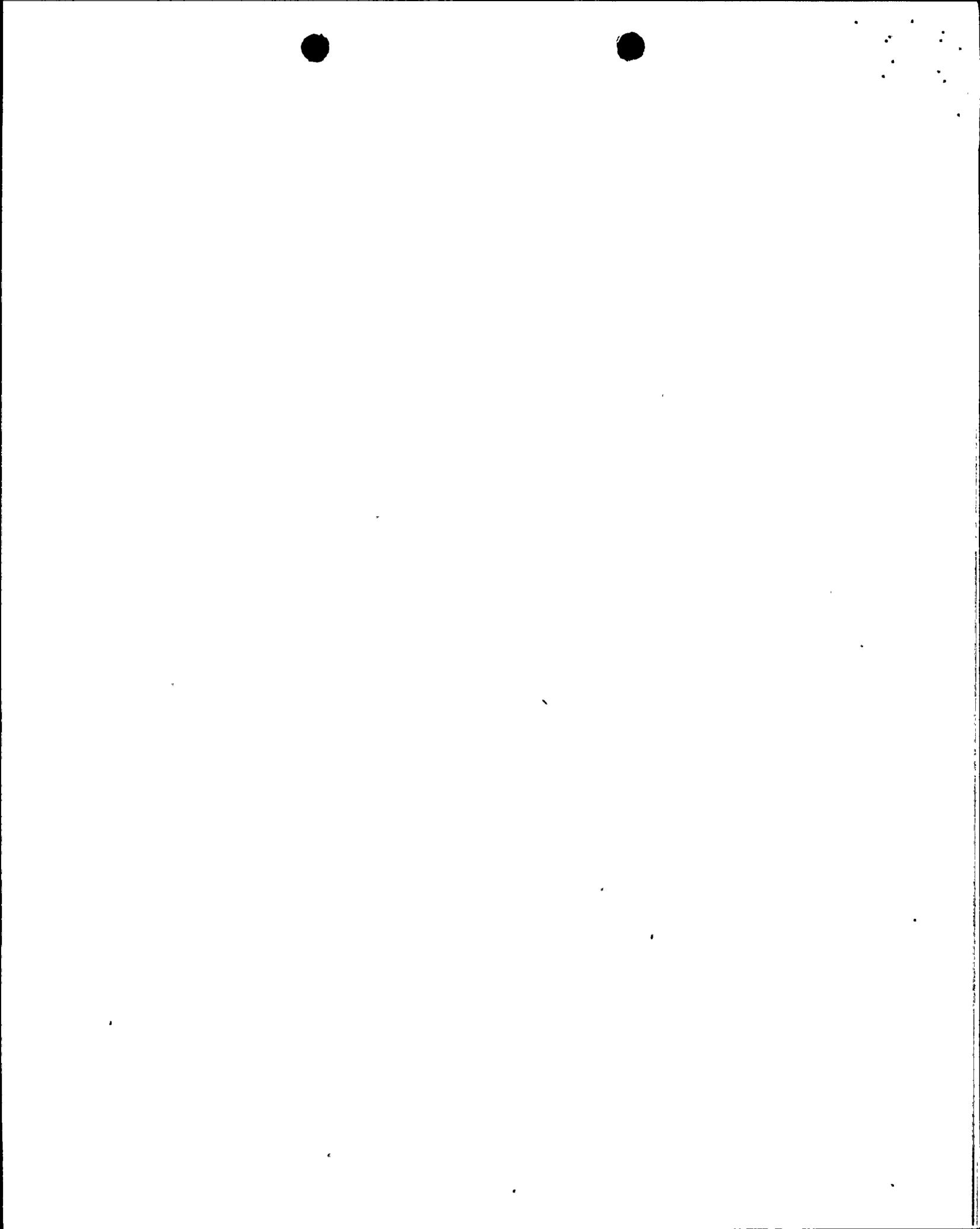
#### V. SCHEDULAR AND ECONOMIC PRESSURES

The Petitioner also contends that there are various economic and schedular pressures at PVNGS currently being caused by several law suits and various rate proceedings, audits, and reviews before regulatory agencies. <sup>13/</sup> Petition at 50-52; January 21, 1986 Addendum at 2-4. Included in these reviews is an incentive program initiated by the Arizona Corporation Commission (ACC) which could subject Licensees to a delay penalty dependent upon PVNGS' commercial operation, a total project construction cost ceiling, and an operating efficiency performance. Petition at 50-51; January 21, 1986 Addendum at 4.

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<sup>13/</sup> Petitioner also cites several safety problems which it alleges were caused by schedular pressures. These include: the PASS incident, discussed supra; incidents of excessive overtime by workers in violation of procedures; an alleged failure by Licensees to respond

(FOOTNOTE CONTINUED ON NEXT PAGE)



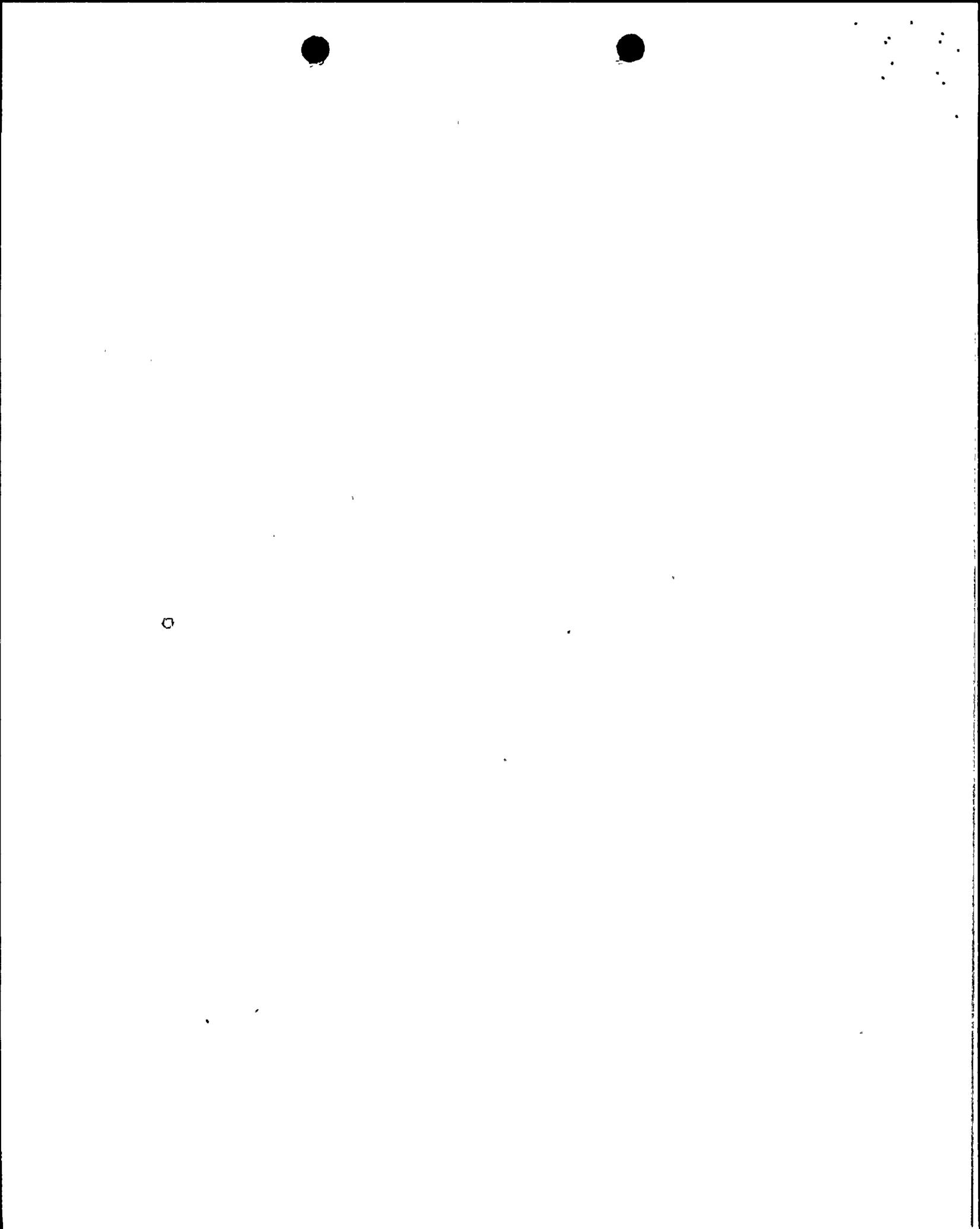
Our response to Petitioner is that the ACC incentive plan has already been ruled upon in an earlier 10 CFR § 2.206 decision in response to this same Petitioner. In that decision the Director found, based in part upon an enhanced inspection effort at PVNGS by the NRC Region V Staff, that the ACC plan was not likely to adversely affect health and safety. Arizona Public Service Co. (Palo Verde Unit 1), DD-85-12, 22 NRC 449, 451-452 (1985). The other legal proceedings and regulatory actions in which Licensees are currently involved are also not believed to create a safety concern since utilities are typically involved in proceedings of this nature.

To the extent that the few specific problems cited by Petitioner (i.e., the PASS and tampering incidents, excessive overtime, and failure to return unused weld rods) may have been caused by schedular and economic pressures, the efficacy of the regulatory program was demonstrated by the detection of these problems. Based on Licensees' testing programs, quality assurance programs, and NRC Staff reviews and inspections which establish that there is reasonable assurance that the Palo Verde facility has been properly constructed, the Staff concludes that schedular pressures have not adversely affected construction or caused undue risk to the public health and safety.

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(FOOTNOTE CONTINUED FROM PREVIOUS PAGE)

quickly to possible tampering; and an allegation that schedular pressure caused an HVAC subcontractor's failure to return unused weld rods. Petition at 47; January 21, 1986 Addendum at 4-5.



## VI. THE OVERBURDENING OF MANAGEMENT

Petitioner also contends that Licensees' management is strained and may become further overburdened when Unit 2 becomes operational. Petition at 27; Addendum at 8.

The NRC Staff has reviewed the Licensees' managerial qualifications and manpower requirements during the operating license review and concluded that Licensees' management is qualified and competent, and that there is adequate manpower to simultaneously operate PVNGS Units 1 and 2. This review was made in accordance with the requirements of 10 CFR § 50.40(b) and under the guidance of the Standard Review Plan (NUREG-0800), Section 13.1. The results are reported in Staff's SER (NUREG-0857) at 13-17 and SSER 1 at 13-3. Staff later also addressed this management issue in SSER 9 at 13-1 in response to NRC Generic Letter 84-16 (Staff Operating Experience).

## VII. THE ALLEGED TAMPERING INCIDENTS

Petitioner contends that there were several deliberate and concerted sabotage efforts at PVNGS which require further investigation by Licensees. January 21, 1986, Addendum at 9-10; Petition at 43.

Our review of this matter reveals that there were sixteen incidents at PVNGS during the years 1984-1986 that potentially could have involved deliberate acts or vandalism. However, for two of these incidents, NRC

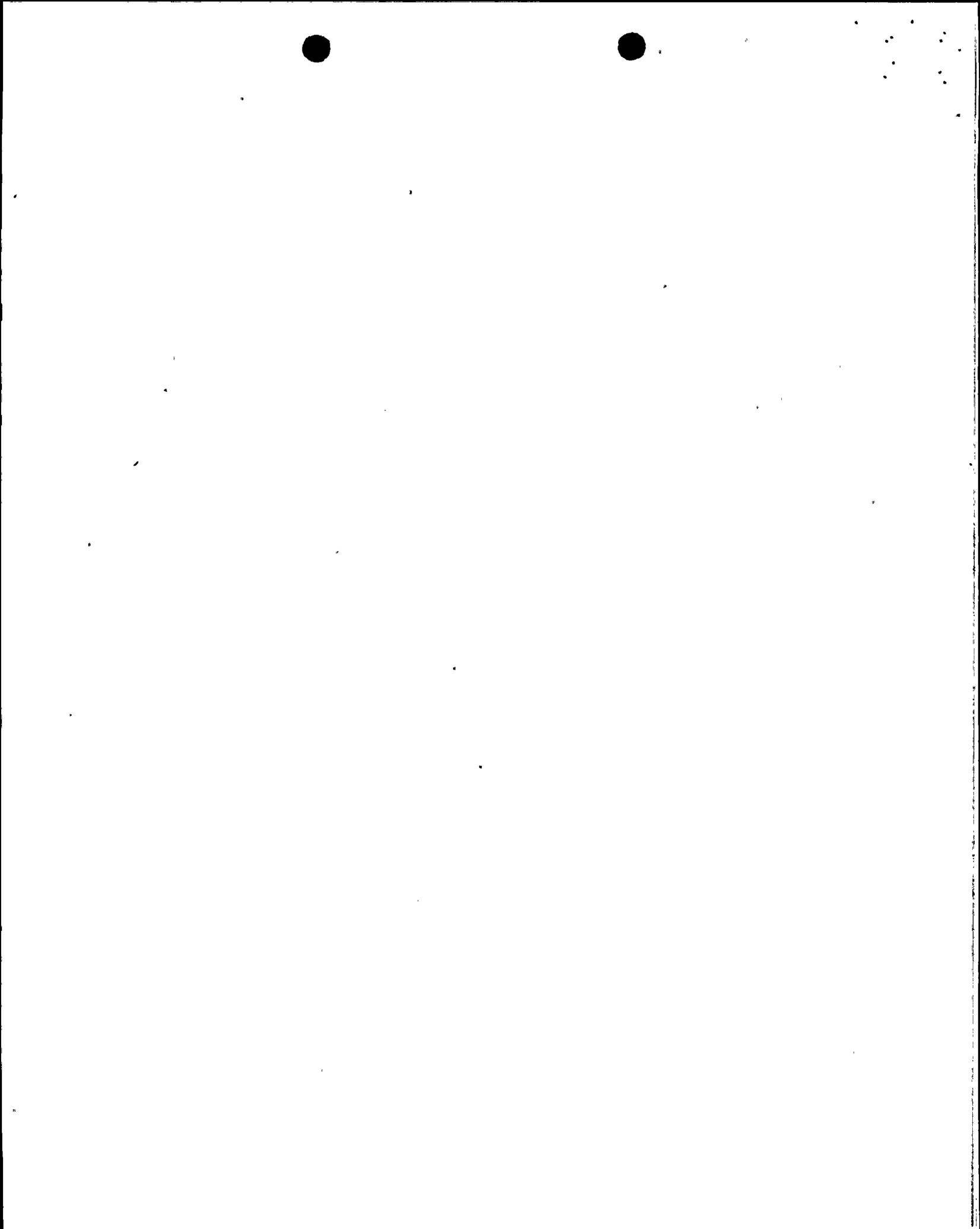


investigations had concluded that tampering was not involved. <sup>14/</sup> For ten other incidents, it was inconclusive whether there was tampering or merely accidents or mistakes. <sup>15/</sup> In none of these incidents was a clear or convincing causal connection established between it and the other incidents, and all incidents except one (the misposition of the D battery switch) had occurred prior to plant operations when security would have been in place to control access to vital areas.

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<sup>14/</sup> These included a July 31, 1985 incident at Unit 2 involving an ammonia supply tank valve out of position for operational mode (Inspection Report 50-529-85-27) and an April 23, 1986 incident at Unit 3 involving the unauthorized cutting of wire for the S/G sample line isolation valve in the cabinet outside of the control room (Inspection Report 50-530/86-07).

<sup>15/</sup> These included: a July 26, 1985 incident at Unit 2 involving an unauthorized operation of the "remote/local" switch for the "D" battery supply breaker in the "D" battery charger/inverter room (Inspection Report 50-529/85-27); an August 5, 1985 incident at Unit 2 involving five power breaker-switches on the control element drive mechanism panels in a closed rather than an open position; an August 8, 1985 incident at Unit 2 involving possible repositioning of 21 power breaker switches on the CEDM panels (Inspection Report 50-529/85-27); an August 15, 1985 incident at Unit 1 involving a repositioning of the 125 VDC "D" battery charger disconnect switch (Investigation Report 50-528/85-26); a January 18, 1986 event at Unit 3 involving the cutting of condenser cables in the lower cable spreading room (Inspection Report 50-530/86-07); a January 16, 1986 event at Unit 3 involving the cutting of wires in the control room for the essential spray pond (Inspection Report 50-530/86-07); a March 22, 1984 incident at Unit 3 involving the cutting of three wires in the control building (Inspection Report 50-530/86-07); a May 3, 1984 incident at Unit 1 involving the cutting of a temporary wire in the containment building (Inspection Report 50-528/86-09); an April 13, 1985 incident at Unit 3 involving oil missing from a turbine cooling water pump (Inspection Report 50-530/86-07); and a November 18, 1985 incident at Unit 3 involving a cut wire on a disassembled motor operator for a valve in the auxiliary feedwater pump room (Inspection Report 50-530/86-07).



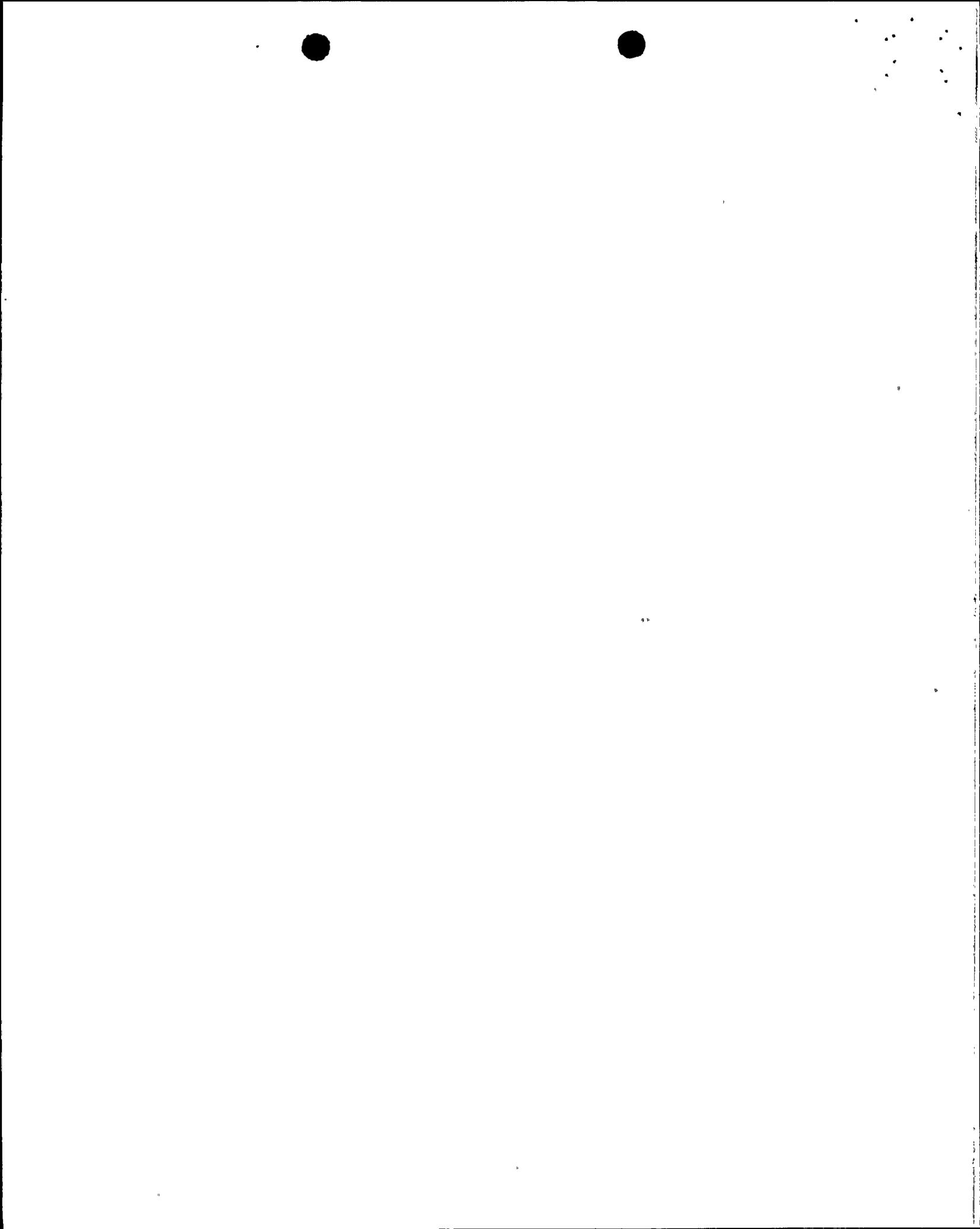
There were also two incidents which were referred to the FBI and the Local Sheriff's Office involving the unauthorized cutting on February 7, 1984 of non-safety related cables in the cable shack for Unit 3 (Inspection Report 50-529/85-22) and the unauthorized repositioning of switches on July 8, 1985 on the remote shutdown panel for Unit 2 (Inspection Reports 50-529/85-22 and 50-529/86-09). <sup>16/</sup> Both incidents were thoroughly investigated (including the use of polygraph tests), and the FBI files were closed due to a lack of data. As was the case with the other potential tampering incidents, plant security for vital areas was not in place when these incidents occurred.

The only other reported incidents during this period possibly involving tampering were the discovery at Unit 3 on July 31, 1985 of rags in a reactor coolant pump breaker cabinet and on August 5, 1985 of paper towels in a charging pump breaker mechanism. Inspection Report 50-530/86-07. Although these incidents may have been caused by inadvertence or accident, they were characterized by the inspection as "construction mischief." Id.

Based upon this limited number of incidents and the fact that in few of these was it established that tampering actually took place, we conclude that, contrary to the assertion of the Petitioner, there is no

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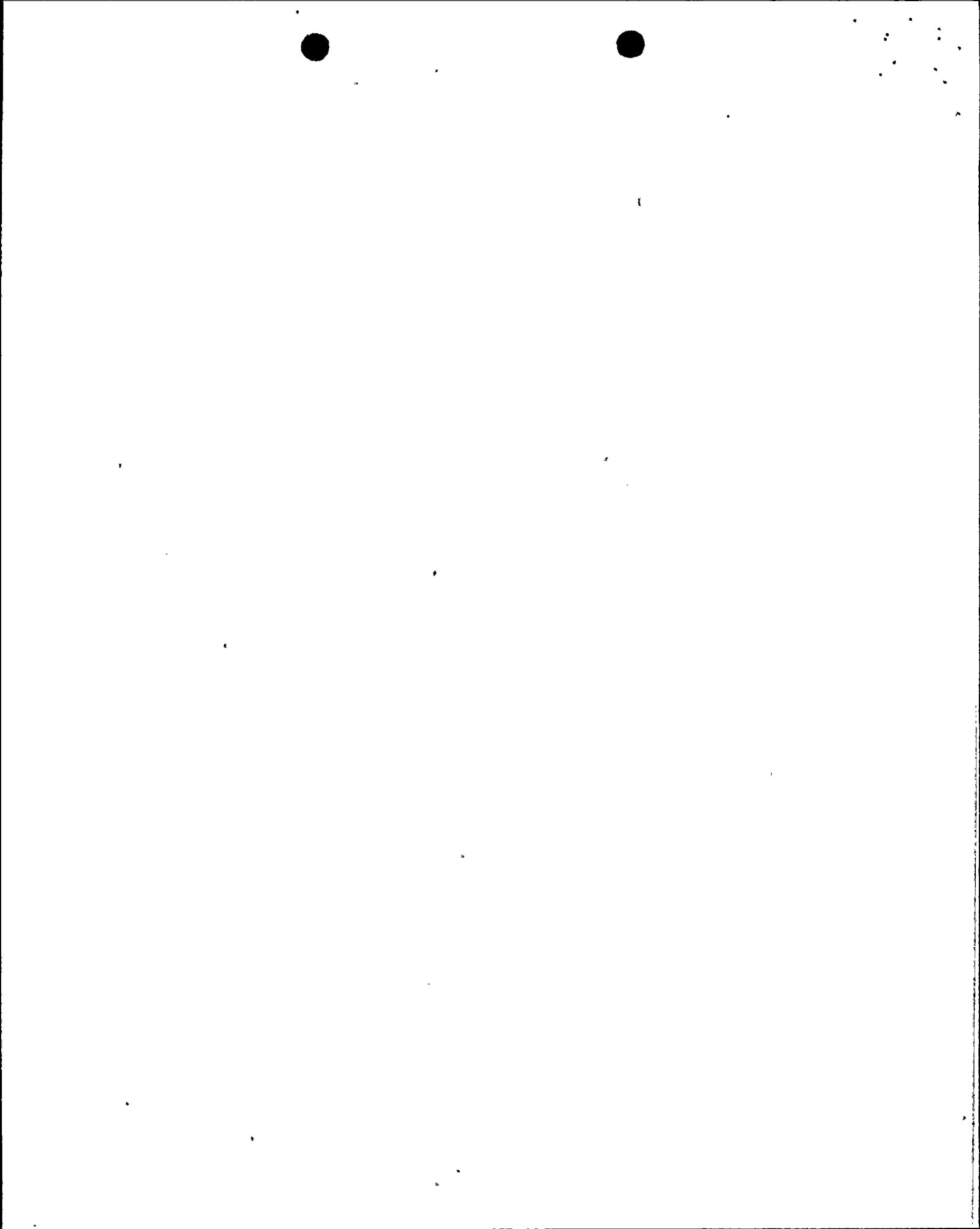
<sup>16/</sup> Another incident, which involved disruption of some offsite power lines at PVNGS on May 14, 1986, is currently being investigated by the FBI. This incident did not threaten public health and safety.



basis for contending that there has been a concerted sabotage effort at PVNGS which threatens public health and safety.

#### CONCLUSION

The issues raised by the Petitioner have been reviewed both by my Staff and the Staff of Region V. These reviews have established the lack of any reasonable basis for concluding that Licensees' management is incompetent or incapable of properly operating PVNGS. When the Licensees' activities are viewed in their total perspective, as was done in the 1985 SALP report, with all activities necessary to build and operate three nuclear plants taken into account, their performance has been satisfactory. Given the magnitude of construction, preoperations, and operations activities associated with completing, testing and operating three nuclear power plants (one in construction, one in startup, and one in operation), the limited number of deficiencies cited by Petitioner does not give rise to a significant safety concern. See Union Electric Co. (Callaway Plant, Unit 1), ALAB-740, 18 NRC 343, 346 (1983); Philadelphia Electric Co. (Limerick Generating Station, Units 1 & 2), DD-85-11, 22 NRC 149, 161 n.7 (1985). Under these circumstances, the Petitioner has failed to raise issues which would warrant the relief requested.



Accordingly, the Petitioner's request for action pursuant to 10 CFR § 2.206 is denied as described in this Decision. As provided by 10 CFR § 2.206(c), a copy of this decision will be filed with the Secretary for the Commission's review.



Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland  
this 1st day of July , 1986

