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SUBJECT: Forwards Rev 1 to "Operations QA Plan," in response to 910717 request for addl info.

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WILLIAM F. CONWAY
EXECUTIVE VICE PRESIDENT
NUCLEAR

161-04338-WFC/GEC

December 12, 1991

Docket Nos. STN 50-528/529/530

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
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References: (1) Letter number 161-03847-WFC/GEC, dated March 29, 1991, from W. F. Conway, Arizona Public Service Company, to the Document Control Desk, U. S. Nuclear Regulatory Commission; "Operations Quality Assurance Plan"

(2) Letter dated July 17, 1991, from R. P. Zimmerman, U. S. Nuclear Regulatory Commission, Region V, to W. F. Conway, Arizona Public Service Company; "Results from Review of Operations Quality Assurance Plan for Palo Verde"

Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Response to Request for Additional Information Regarding the PVNGS Operations Quality Assurance Plan
File: 91-056-026; 91-005-216

By letter, dated March 29, 1991 (Reference 1), Arizona Public Service Company (APS) submitted to the NRC the Operations Quality Assurance Plan (OQAP) for PVNGS. The OQAP is a revision to the PVNGS quality assurance program description currently contained in section 17.2 of the PVNGS Updated Final Safety Analysis Report (UFSAR). During the review of the OQAP, the NRC staff determined that additional information was required to complete the review. The NRC requested this additional information in Reference 2.

A meeting between the NRC review staff and members of the APS Quality Assurance and the APS Nuclear Safety and Licensing organizations was held at the NRC Region V offices on September 18, 1991. The purpose of this meeting was to discuss the NRC request for additional information (RAI) and the APS draft response. This meeting provided the necessary clarification for APS to fully respond to the RAI. One change has been made to the APS draft response discussed during the meeting. In reference to item 29d of the RAI, APS has determined that the Regulatory Guide conformance statements will not be included in Appendix B of the OQAP; rather, a note to refer the reader to UFSAR section 1.8 has been provided.

JE43

The APS response to the RAI is provided as Enclosure A to this letter. Enclosure B to this letter is Revision 1 to the OQAP. Revision 1 incorporates responses to the RAI and organizational changes effected since the Reference 1 submittal. Changes are indicated in Revision 1 by vertical lines in the page margin.

The OQAP will be issued as Amendment 0, under controlled distribution, to holders of the PVNGS UFSAR within 90 days following NRC's acceptance. Following issuance of the OQAP Amendment 0, copies will be forwarded to the NRC.

The next annual revision of the PVNGS UFSAR is scheduled to be submitted to the NRC in March 1992. Based upon the expected implementation of the OQAP prior to this date, APS does not plan to revise the current UFSAR section 17.2 for the March 1992 UFSAR revision. Also, following issuance of Amendment 0, APS will replace UFSAR section 17.2 with a reference to the OQAP.

Please call Gary E. Clyde at (602) 340-4252 with any questions.

Sincerely,

WFC/GEC/gec

Enclosures

cc: J. B. Martin (all w/enclosures)
R. P. Zimmerman
J. G. Spraul
W. J. Wagner
D. H. Coe
A. C. Gehr
A. H. Gutterman

ENCLOSURE A

RESPONSE TO NRC'S REQUEST FOR ADDITIONAL INFORMATION CONTAINED IN NRC LETTER DATED JULY 17, 1991

RESPONSE TO NRC'S REQUEST FOR ADDITIONAL INFORMATION CONTAINED IN NRC LETTER DATED JULY 17, 1991

1. The cover letter and the introduction to the Operations Quality Assurance Plan (OQAP) indicates that the plan "supersedes all previous Quality Assurance...manuals...." Will there be no QA procedure manuals in the system?

   Response:

   Section 6.1.1 of the OQAP states that activities within the QA scope be prescribed by documented procedures, instructions, and/or drawings of a type appropriate to the circumstances. Therefore, activities within the QA scope performed by all organizations, including the QA organization, must be performed in accordance with procedures. The OQAP will be the approved Quality Assurance Program Description and will supersede the current UFSAR section 17.2 and the Operations Quality Assurance Criteria Manual.

2. Provide a copy of what will be stated in UFSAR section 17.2 regarding such things as the PVNGS organization, QA program description, commitment to QA Regulatory Guides and QA program scope.

   Response:

   The proposed UFSAR section 17.2 is provided as Attachment 1 to this enclosure.

3. Identify whether each organizational element shown in Appendix A of the plan is on site or off site. (UFSAR section 13.1.1.3 indicates the QA managers are part of the headquarters staff.) Describe the criteria for determining the size of the QA organization including the inspection staff. Clarify to whom (by position title) the Executive Vice President, Nuclear, reports. (1A5)

   Response:

   Appendix A of the OQAP has been revised to reflect whether organizational elements are on site or off site.

   UFSAR section 13.1.1.3 will be revised to reflect that QA managers are not part of the headquarters staff.

   Staffing of the QA organization is maintained at a level sufficient to ensure that activities required by regulations and PVNGS license basis documents are adequately performed. This includes activities such as audits required by Technical Specifications as well as activities other than those associated with Appendix B to 10 CFR Part 50. Arizona Public Service Company (APS) periodically evaluates staffing levels of the QA organization utilizing industry comparison studies and internal manpower staffing assessments.

   The first sentence of OQAP section 1.2 has been revised to state: "The Executive Vice President, Nuclear, reports to the President and Chief Executive Officer."

4. Describe the QA responsibilities of each of the subordinate organizational elements shown in Appendix A, that is, below the Vice Presidents and the Director, Quality Assurance. If this information is in Chapter 13 of the UFSAR, indicate where. (1A6)

Response:

The Quality Assurance responsibilities of the heads of organizations depicted in OQAP Appendix A are contained in chapter 1.0 of the OQAP. The individual QA responsibilities of these organizations are not identified in the OQAP but are more appropriately contained in the project procedures that implement the OQAP. UFSAR section 13.1 contains specific responsibilities of these organizations. As stated in the OQAP submittal letter of March 29, 1991 (refer to letter number 161-03847-WFC/GEC), information regarding the organizational structure of the Quality Assurance Division, currently located in UFSAR section 17.2, will be moved to UFSAR section 13.1 without modification.

5. Clarify whether the QA organization is routinely represented in daily unit work schedule and status meetings to ensure it is kept abreast of day-to-day work assignments at each unit and that there is adequate QA coverage of ongoing activities. (1B6)

Response:

The following paragraph has been incorporated at the end of OQAP section 1.6:

> "Members of the QA staff routinely participate in Unit scheduling and Plant status meetings to ensure that the QA organization is apprised of activities being performed, and that adequate QA staffing is available to perform the necessary verifications consistent with their importance to safety."

6. Clarify the scope of the QA program. Indicate where the UFSAR identifies the safety-related (Quality Class Q) structures, systems, components, and related consumables. Clarify whether the quality augmented programs described in Appendix F of the plan also cover such things as the ALARA program, nonsafety-related ATWS equipment, the water chemistry program, and the safety parameter display system and other nonsafety-related "TMI-2" items. Section 3.1 of Appendix F-5 states:

This quality augmented program is not intended to encompass structures, systems, and components whose failure could reduce the functioning of safety related equipment through leakage, spray, or impingement effects.

What program encompasses these items? (2A1a)

Response:

The scope of the QA program is defined by table 3.2-1 of the UFSAR and section 2.2 of the OQAP. Table 3.2-1 of the UFSAR also identifies the safety-related structures, systems, components, and consumables. Appendices F-1 through F-5 of the OQAP are intended to define the quality assurance requirements applicable to distinct categories of equipment and activities, and consequently do not apply to items and activities not specifically described in the respective opening paragraphs. These appendices are not intended to define the full scope of the QA program, however, and the relevant requirements of the OQAP are applied (consistent with the graded approach criteria described in section 2.3 of the OQAP) to all equipment classified as quality related by applicable administrative procedures (refer to section 2.2.1 of the OQAP). These procedures stipulate that equipment required to comply with the ATWS rule be classified quality related. They also require that items necessary to suitably isolate safety-related systems from nonsafety-related systems, and plant features necessary to assure that a single random failure does not prevent the accomplishment of a safety function, be classified quality related. Consequently, appropriate items related to the protection of safety systems against the dynamic effects of postulated piping ruptures (leakage, impingement, or spray effects), as described in section 3.6 of the UFSAR, are classified quality related. Commitments regarding the applicability of the APS QA program to many other items (such as nonsafety-related TMI-2 items)

are documented in the responses to NRC questions 260.62 and 460.2 (UFSAR Appendices 17A and 3A, respectively). The submittal of the OQAP does not modify those commitments.

Activities associated with programs such as the radiation protection program and the water chemistry program, are classified quality related by APS procedures and are identified as being within the scope of the QA program by paragraph 2.2.2 of the OQAP.

Sections 3.13 and 3.14 of the OQAP describe requirements and responsibilities for ALARA programs.

Section 2.2.2 of the OQAP has been revised to include "ALARA" as a separate activity category.

Section 2.1 of the OQAP has been revised to include the following statement after the first sentence: "The scope of the QA Program is defined by table 3.2-1 of the UFSAR and section 2.2 of this Plan."

7. Clarify whether the Appendix G computer software and data control program applies in its entirety to the Core Protection Calculator(s) at PVNGS. Indicate where and how, under APS's graded QA program, Appendix G is applied elsewhere. Describe how software will be "qualified" as stated in Section 2.7 of Appendix G. Also, Sections 3.1 and 3.2 of Appendix G of the plan indicate that (1) software and data which are classified as a plant structure, system, or component and (2) software that is used only with further verification are not within the Appendix G scope. Provide examples of these programs and indicate how their quality is ensured. (2A1C)

Response:

Appendix G of the OQAP does not apply to the Core Protection Calculators at PVNGS. This software is considered "process software" and is therefore classified as a plant system, structure, or component, as stated in section 3.1 of Appendix G of the OQAP.

The non-process software Quality Assurance procedures that will implement the requirements of OQAP Appendix G are currently being developed. Therefore, specific examples of the graded program as it applies to the computer software are not available at this time.

Software will be qualified utilizing procedural validation testing in order to demonstrate the capability of the computer program to produce valid results. The extent of this process will utilize the graded approach. Criteria such as importance of application, complexity of application, and vendor support will be utilized.

In addition, there will be various OQAP Appendix G controls applied to software products, including: (a) off-the-shelf software that is purchased from approved vendors, (b) off-the-shelf software that is purchased from unapproved vendors, (c) new software developed internally, and (d) new software developed by an approved vendor.

OQAP Appendix G has been revised, in section 1.0, as follows:

> Measures shall be established utilizing the graded approach to ensure that the requirements for procurement, installation, design, testing, modification, and use of software are commensurate with their importance to safety.

OQAP Appendix G has been revised, in section 2.7, as follows:

> Prior to utilization, computer software shall be qualified in accordance with approved procedures, or by administrative controls that require verification of output prior to use.

OQAP Appendix G has been revised, in section 3.2, as follows:

The requirements of this Appendix apply to computer software that is used to:

8. Provide a commitment to Regulatory Guide 1.74 or justify not doing so. (Note that the reference to "NRC requirements for nuclear power plants" in the PVNGS definition of a commercial grade item appears to be too narrow and should be expanded to refer to "nuclear facilities.") (2B3)

Response:

Appendix B to the OQAP has been revised to include a commitment to Regulatory Guide 1.74.

The PVNGS definition of commercial grade items has been revised to reference "nuclear facilities" rather than "nuclear power plants."

9. Response B to Regulatory Guide 1.30 in Appendix B of the plan refers to a "computer information management system." Clarify whether Appendix G of the plan applies to this system. Also indicate whether this system is used to maintain "as found" information for uses such as adjusting calibration intervals. (2B3)

Response:

The Quality Assurance procedures for non-process computer software and data, that will implement the requirements of Appendix G of the OQAP, are currently being developed. Once implemented, the appropriate controls (commensurate with the use of software/data) shall be determined and applied.

The computer information management system is utilized as a scheduling tool and provides information pertaining to the due date of the calibration interval. "As found" data is entered in work documents which are controlled and maintained under a separate administrative controls program.

10. Identify procedures that are used to implement the Operations QA Plan or justify not doing so. (2B4)

Response:

The specific identification of procedures within the text of the OQAP is inappropriate. Their inclusion would mandate continuous and unnecessary revisions to the OQAP due to actions such as changes to procedure designators/titles, the merging of procedures, etc. Documents that prescribe how to perform activities within the scope of the OQAP shall be identified as "quality related" in the Nuclear Administrative and Technical Manual Index (refer to paragraph 6.2.1.1 (i) of the OQAP).

11. Describe organizational responsibilities to maintain design documents at PVNGS such that the documentation matches the actual operating plant. (3B)

Response:

This responsibility is delegated to the Vice President, Engineering & Construction as specified in sections 3.2.2.1 and 6.3.2.1, and in paragraphs 3.11.2.2(g) and 6.3.2.3(d) of the OQAP.

12. Describe design interface controls that ensure functional item compatibility. (3D)

Response:

Section 3.2.1.4 of the OQAP has been revised to read:

> Internal and external design interface controls, procedures, and lines of communication, among participating design organizations and across technical disciplines, are established and described for the preparation, review, approval, release, distribution, and revision of documents involving design interfaces to assure structures, systems, and components are compatible geometrically, functionally, and with processes and the environment.

13. Clarify whether APS requires that checks be made and documented to verify the dimensional accuracy of information in design documents which are generated or changed. (3E1)

Response:

The OQAP commits, with the exceptions noted in section 1.8 of the UFSAR, to Regulatory Guide 1.64 which endorses ANSI N45.2.11, QA Requirements For The Design Of Nuclear Power Plants. As such, procedures are established to ensure the adequacy of design input and output documents. This verification is accomplished by design reviews, alternate calculations, or qualification testing.

Section 3.2.1.9 of the OQAP requires that procedures be established to assure that the responsibilities of the verifier, areas and features to be verified, and the extent of documentation required are identified.

Specific design and technical document controls, including requirements for the documented performance of drawing checks, are delineated in administrative control procedures.

14. Clarify that a designer's immediate supervisor does not perform the design review (verification) unless the supervisor is the only technically qualified individual available. (3E4a)

Response:

The use of immediate supervisors for the verification function is discussed in the conformance statement of Regulatory Guide 1.64 in section 1.8 of the UFSAR, which states:

> Supervisory personnel may perform design verification under exceptional circumstances as documented and approved by the next level of supervision, if:
>
> 1. The justification (for design verification by a designer's immediate supervisor) is individually documented and approved in advance, and
>
> 2. Quality assurance audits cover frequency and effectiveness of use of supervisors as design verifiers to guard against abuse.

15. Clarify whether procedures provide criteria that specify when design verification should be by test. (3E5a)

Response:

Paragraph 3.2.1.10 (c) has been added to the OQAP as follows:

> Procedures provide criteria that specify when verification should be by test.

16. Section 6.2.2 of the plan addresses organizational responsibilities regarding the content of instructions, procedures, drawings, and policies. Expand this section to include responsibilities for implementing these types of documents or discuss why this is inappropriate. (5A)

Response:

Section 6.2.2 of the OQAP addresses the responsibilities of Vice Presidents, Directors, Plant Managers, and General Managers regarding the control of documents and records. Paragraph 6.2.2.1 (b) of the OQAP charges these individuals with the responsibility for: "Incorporating into applicable policies, procedures and instructions those requirements contained in this Plan and the Regulatory Guides and standards committed to in Appendix B of this Plan."

Section 6.1.1 of the OQAP requires that activities within the QA scope be prescribed by documented procedures, instructions, and/or drawings and further requires these activities to be accomplished in accordance with these documents.

Section 1.7 of the OQAP charges all PVNGS employees with the responsibility for accomplishing work activities in accordance with instructions, procedures, and drawings.

17. Describe measures to ensure that procurement documents for spare and replacement parts require the use of current (up-to-date) QA program controls. (7A4)

Response:

Section 3.3.1 of the OQAP has been revised to read as follows:

> The requirements for the preparation, review, approval, and control of procurement documents shall be delineated in detailed procedures. These procedures shall comply with and require the incorporation of current APS QA program controls into procurement documents. Technical requirements for spare and replacement parts shall meet or exceed the original procurement requirements. Procedures shall also delineate requirements to assure that procurement documents contain the following, as applicable:

18. Describe measures to ensure that suppliers furnish PVNGS with documentation that identifies procurement requirements that have not been met. (7B3.b)

Response:

Paragraph 3.3.1 (n) has been added to the OQAP as follows:

> Require submittal of appropriate certification documentation identifying the purchased material and the specific procurement requirements met. For any procurement requirements that were not met, the vendor will be required to furnish documentation indicating how such nonconformances were resolved. Such certification must be attested to by a person responsible for this quality assurance function.

19. Describe how APS evaluates suppliers' certificates of conformance to ensure they are valid. Clarify how such evaluations are documented and used by PVNGS. (7B5)

Response:

Paragraph 3.3.3 (g)(3) of the OQAP has been revised to read as follows:

> The item's quality record package or compliance certification is complete and adequate. Supplier certificates of conformance shall be periodically validated through audits, surveys,

independent inspections, or tests when they are used as the basis for acceptance of a purchased item or service.

20. Section 4.2.1.2 of the plan appears to assign identical responsibilities to different organizations. It states that the QA organization and the Engineering and Construction organizations are responsible.... Consider assigning each responsibility to a given organization and the verification function to another. Also, Section 4.2.1.1 refers to procedures. Clarify whether these procedures will identify which organization (that is, the one that initiates a work implementing document or the one that reviews it) is responsible to identify the tasks which require worker verification, supervisory verification, second party verification, and independent verification. (1A6)

Response:

The key word in Section 4.2.1.2 is attributes. Section 4.2.2.2 charges the Vice President, Engineering & Construction with the responsibility for ensuring that verification requirements (which includes attributes) are included in appropriate design specifications, drawings, procedures and instructions and that these documents include acceptance criteria and as applicable, references to codes, standards and regulatory documents. Section 4.2.2.3 charges the Director, Quality Assurance with the responsibility for reviewing procedures and work authorizing documents for inclusion of QA witness and hold points and for the development of inspection plans and standards.

The words "or reviews" has been deleted from section 4.2.1.1 since it is the responsibility of the initiating department to identify tasks that require verification.

Section 4.2.1.2 has been revised to read:

> The Engineering and Construction organization is responsible for the identification of attributes that require independent inspection. The QA organization may elect to identify additional attributes requiring independent inspection based on quality history, trending, and quality engineering reviews that indicate the need for increased independent inspection.

21. Both Sections 4.2.1.3 and 4.2.1.4 use the term "Work Control" as if it is an organization. Since such an organization is not addressed in Section 1 or Appendix A of the plan, clarify the term. (1A5)

Response:

The last two sentences of section 4.2.1.3 of the OQAP have been revised to read:

> Worker verification may be requested by the organization initiating work implementing documents for quality related tasks. A sign-off for worker verification shall be provided in the work document when worker verification is requested.

The last two sentences of section 4.2.1.4 of the OQAP have been revised to read:

> Supervisory verifications may also be requested by the organization initiating work implementing documents for quality related tasks. A sign-off for the supervisory verification shall be provided in the work document when supervisory verification is requested.

22. The last two paragraphs of Section 4.2.1.7 of the plan appear to have application to Level 1 verifications other than independent inspections. Identify how the commitments will be met for other Level 1 verifications or justify why they are not required. (10C3)

Response:

The last two paragraphs of OQAP section 4.2.1.7 are also applicable to the independent verifications

described in OQAP section 4.2.1.6. Similar paragraphs have been added to the end of OQAP section 4.2.1.6.

23. What are the bases for specifying a condition adverse to quality as significant? Identify who (by position title) is responsible for this. (15.1)

Response:

Appendix C of the OQAP defines a significant condition adverse to quality as one which, if uncorrected, could have a serious effect on safety or operability. Guidance for the determination of significant conditions adverse to quality is incorporated in appropriate administrative control procedures.

The Director, Quality Assurance, as stated in paragraph 5.3.1 of the OQAP, is responsible for the review and concurrence of all procedures for reporting and controlling conditions adverse to quality in accordance with the requirements of the OQAP.

24. Clarify whether records of conditions adverse to quality describe the condition, the disposition of the condition, the verification requirements that the condition is corrected, and show appropriate management signature approval. (15.3)

Response:

Documentation requirements for conditions adverse to quality are addressed in chapter 5.0 of the OQAP. Specific implementation requirements are delineated in administrative control procedures.

25. Section 5.3.1b of the plan indicates that the QA organization concurs only with dispositions of significant conditions adverse to quality. Identify who (by position title) has this responsibility for conditions adverse to quality which are not deemed "significant." Similarly, identify who (by position title) is responsible to correct conditions adverse to quality and close out corrective action in a timely manner. (16.3)

Response:

Sections 5.3.2 and 5.3.3 of the OQAP identify those individuals responsible for the establishment and implementation of programs/procedures for the reporting and correction of conditions adverse to quality. Specific responsibilities (by position title) with regard to conditions adverse to quality which are not deemed "significant" will be reflected in administrative control procedures. The Director, Quality Assurance is responsible for review and concurrence of all procedures applicable to the reporting and control of conditions adverse to quality.

26. Clarify whether audit data are analyzed by the QA organization and the results, including the need for re-audits, are reported to management for review and assessment. (18B1)

Response:

Paragraph 4.4.1.1 (c) of the OQAP requires the audit program to include provisions for analysis of audit data and the subsequent reporting of results to appropriate levels of management.

Paragraph 4.4.2.1 (e) has been added to the OQAP to state the following:

> Analyze audit data and the results, including the need for re-audits, and reporting these results to appropriate levels of management.

27. Section 3.11 addresses plant maintenance and modifications. Clarify whether maintenance and modification procedures are reviewed by QA personnel to ascertain whether quality verification needs will be met. (17.2.6-2)

Response:

The QA organization reviews and concurs with all upper tier administrative control procedures and programs. Reviews of lower tier procedures and other documents are performed on a graded approach, as part of verification activities, or on a sample basis.

Section 4.2.1.7, fourth paragraph, states: Quality related work authorizing documents shall be reviewed by the Quality Assurance organization to determine the need for and annotation of independent inspection to be performed by the Quality Control Department.

Section 4.3.1.3, second paragraph, states: Documents that define programs or establish administrative controls (upper tier) shall be reviewed and concurred with by the QA organization prior to implementation.

28. Section 4.3.6 of Appendix F-1 of the plan addresses the trending of deficiencies in the area of fire protection. There appears to be a significant reduction of commitments in Enclosure 4 of the March 29, 1991, letter. Justify this reduction which indicates that all quality deficiencies in the area of fire protection are not trended.

Response:

Conditions adverse to quality in the area of fire protection will be trended. Appendix F-1 of the OQAP has been revised as follows:

> Paragraph 3.2.9 (c) has been added to Appendix F-1 of the OQAP as follows: Conditions adverse to fire protection are periodically analyzed to detect trends which may not be apparent to a day-to-day observer.
>
> Section 4.5 has been added to Appendix F-1 of the OQAP as follows: The Executive Vice President, Nuclear, is responsible for the establishment of programs for the reporting, correction, and analysis of conditions adverse to fire protection.

29. Editorial Comments:

a) The first sentence in Section 1.0, 1.1, and 1.2 lists a number of activities, and each includes modification, maintenance, and operation. Section 1.0 includes repair, inservice inspection, and refueling which are not in the others; while the others include engineering, design, procurement, and construction which are not in 1.0. Should not these all be the same?

Response:

The first sentence of OQAP section 1.0 has been revised to be consistent with sections 1.1 and 1.2. Sections 1.1 and 1.2 of the OQAP have been revised to include "refueling" and "inservice inspection".

b) Change "must" to "shall" in the plan (Section 2.5 - 2 places).

Response:

Comment has been incorporated.

c) Similarly, change "approved" to "accepted" in the plan (Section 2.5, third paragraph).

Response:

Comment has been incorporated.

d) For clarity regarding QA Regulatory Guide conformance statements, consider either 1) referencing Section 1.8 of the UFSAR and not including them in the plan or 2) simply referencing the plan in Section 1.8 of the UFSAR. To include the conformance statements in the plan but still direct the reader to the UFSAR for Regulatory Guide conformance is confusing. Duplication would be acceptable. Regulatory Guide 1.54 and 1.143 are not normally reviewed as part of the QA program description review. PVNGS should inform us of any changes to commitments to these Regulatory Guides since licensing.

Response:

Part II to Appendix B of the OQAP has been deleted.

Statements which direct the reader to UFSAR section 1.8 for conformance statements to the identified Regulatory Guides have been added to Appendix B of the OQAP.

PVNGS commitments to Regulatory Guides 1.54 and 1.143 are unchanged in the OQAP from those currently presented in the UFSAR. Changes to the PVNGS conformance statements, which have been made to these Regulatory Guides since licensing, have been accomplished in accordance with the requirements of 10 CFR 50.59 and where applicable, 10 CFR 50.54(a). APS does not believe that further review of Regulatory Guides 1.54 or 1.143 is warranted at this time.

e) It appears that Level 1 verifications relate to hardware whereas Level 2 verifications relate to documents and activities. This should be clarified in Sections 2.4, 4.2.1, and/or 4.2.2.

Response:

Level I and Level II verifications can be both hardware and activity/document oriented.

The first sentence of OQAP section 2.4.1 has been revised as follows:

> Level I - Activities at this level consist of worker verifications, supervisory verifications, second party verifications, independent verifications, and independent inspections for the purpose of establishing acceptance of equipment, systems and activities within the QA scope.

f) Section 3.9.1.4 needs editing.

Response:

Section 3.9.1.4 of the OQAP has been revised as follows:

> Items that have satisfactorily passed required inspections and tests, shall, where necessary, be identified to preclude inadvertent bypassing of required inspections and tests on other similar items which may not have been inspected or tested.

g) Sections 2.10 and 5.1 of the plan give examples of conditions adverse to quality such as "failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances." Appendix C defines failure, deficiency, and nonconformance but not malfunction, deviation, or defective. Is this intentional? Also, consider whether design errors should be on the list.

Response:

The Appendix C definition of condition adverse to quality has been revised to state: "An all-inclusive term used to reference any item or activity which does not conform to requirements. Conditions adverse to quality is synonymous with terms such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances."

Attachment 1

APS submitted a proposed Operations Quality Assurance Plan on March 29, 1991, (letter no. 161-03847-WFC/GEC) as a revision to the previously accepted PVNGS quality assurance program description contained in section 17.2. Following NRC review, the Plan was revised on (insert date and letter number of final revised Plan) and accepted by the NRC on (insert NRC acceptance date). Following a period of procedure update, the Operations Quality Assurance Plan became effective on (insert effective date). Refer to the Operations Quality Assurance Plan, contained in a separate volume, for the PVNGS quality assurance program description. Changes to the quality assurance program description will be made in accordance with the requirements of 10 CFR 50.54(a). Refer to section 13.1 for information regarding the organizational structure of the Quality Assurance Division.