



Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

Norman W. Curtis  
Vice President-Engineering & Construction-Nuclear  
215 / 770-5381

July 15, 1981

Mr. Richard R. Keimig, Chief  
Reactor Projects Branch 2, DRPI  
U. S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

SUSQUEHANNA STEAM ELECTRIC STATION  
NRC INSPECTION OF MARCH 23 - 27, MARCH 30 - APRIL 3, 1981  
REPORT NO. 50-387/81-08 AND 50-388/81-04  
ERs 100450/100508 FILE 840-4  
PLA-879

Reference: PLA-867 dated July 1, 1981

Dear Mr. Keimig:

Reference is to your letter of May 29, 1981 which forwarded IE Inspection Report 50-387/81-08 and 50-388/81-04 "Appendix A, Notice of Violation" and "Appendix B, Significant Observations."

Your letter advised that PP&L was to submit, within thirty (30) days of receipt, a written explanation addressing (1) corrective action steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved. Your letter also requested that PP&L respond to the observations of Appendix B and the Deviation discussed in said inspection report.

A request was made to extend the response date and was confirmed in our letter PLA-867 which submitted July 13, 1981 as the new date.

The Notice of Violation states as follows and the corrective actions are detailed below:

1. 10 CFR 50.55a(g) (2) states in part that, "For a boiling or pressurized water-cooled nuclear power facility whose construction permit was issued on or after January 1, 1971, but before July 1, 1974, components (including supports) which are classified as ASME Code Class 1 and Class 2 shall be designed and be provided with access to enable the performance of (i) inservice examination of such components (including supports)..."

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Contrary to this requirement, there was no objective evidence available to indicate that measures had been applied during design to provide for accessibility for performance of preservice or inservice examinations. Access to several welds for preservice/in-service inspection in Class 1 systems such as the reactor water cleanup, feedwater, core spray and RHR systems will be impractical, and in some cases impossible short of major dismantling of the plant."

It is recognized that because of the changing scope and developing requirements for ISI as well as layout constraints, some welds subject to ISI may not be accessible either partially or completely. It is for this reason that technical Specification M-191, "Preservice Examination of Piping and Components," incorporates a pre-examination visit checklist for summarizing the existing access conditions. Furthermore, areas judged to exhibit conditions which are not compatible with the examination requirements will be identified by the contractor in a written report. Spec M-191 further requires the following information shall be included in this report:

- a) Identification of the component, area and weld number, if applicable.
- b) Nature of the interfering condition.
- c) Recommendations for corrective action (redesign, modification, temporary shielding, etc.)
- d) Recommendations for alternative examination technique, if applicable, and method for qualifying and applying the technique.

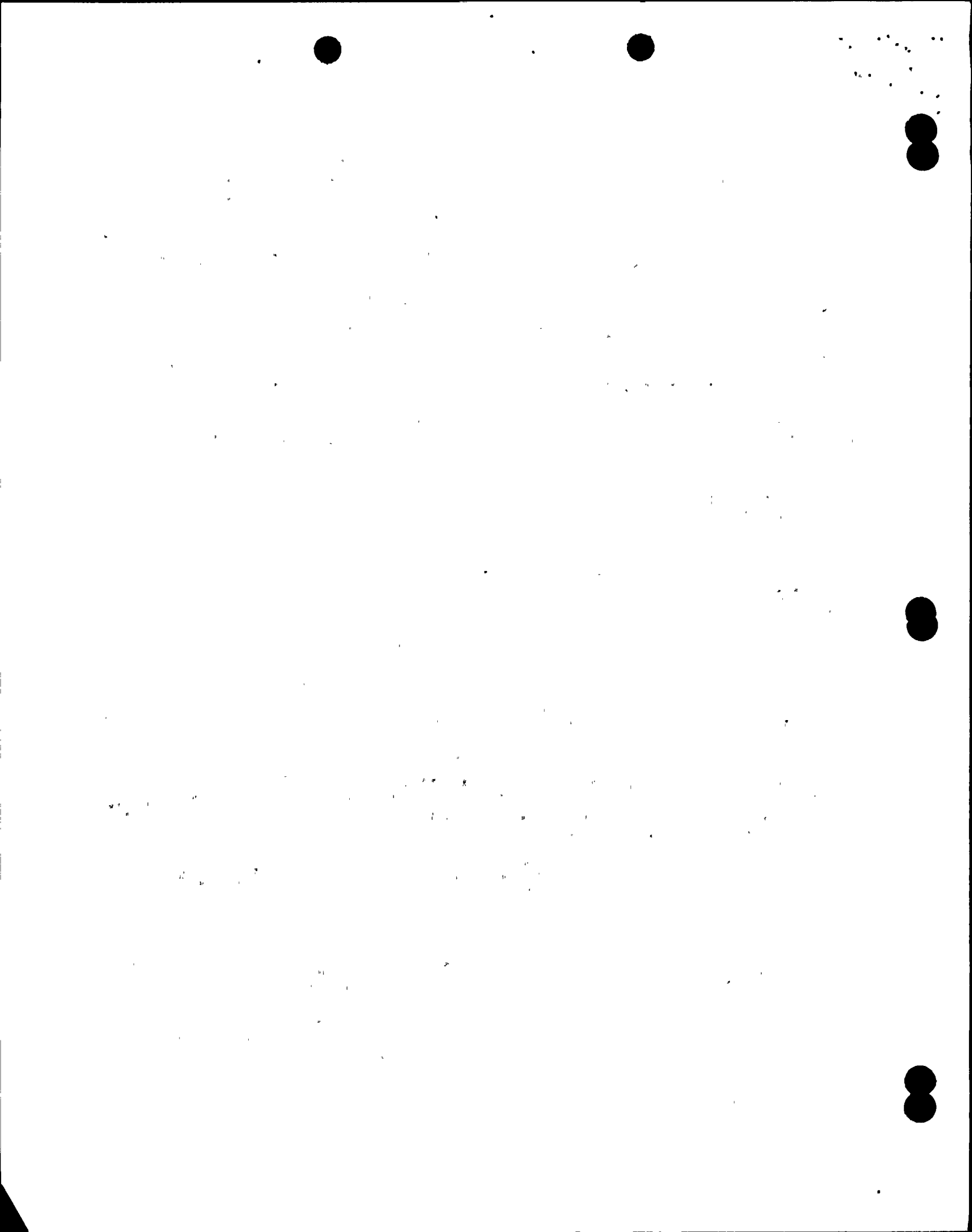
This information will be used by Bechtel and PP&L Engineering in evaluating problem areas. To date, of 1557 total welds requiring ISI, 1456 have been reviewed by the preservice examination contractor. PP&L Engineering reports the following status:

- Of 1456 welds examined to date, ten welds are inaccessible and eleven welds are partially inaccessible. The ten inaccessible welds include four welds in the wet well which were never intended to be accessible. The inaccessible portions of the partially accessible welds range from 5 to 50 percent with most being less than 20 percent inaccessible.

Based on the above history and current status of the ISI situation, it is felt that ISI requirements are adequately defined and controlled by existing project specifications. No further action is deemed necessary.

- "2. 10 CFR, Appendix B, Criterion II, states, in part, that "The quality assurance program shall provide control over activities affecting quality of identified structures,..." and "Activities affecting quality shall be accomplished under suitably controlled conditions."

PSAR Section D.2.2 of Appendix D states, in part, that: "The Quality Assurance Program for the Susquehanna Steam Electric Station, Units 1 and 2, will be responsive to, and meet the intent of 10 CFR 50, Appendix B."



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Contrary to the above, on March 24, 1981 the inspector observed workmen in the lower cable spreading room, elevation 714, performing random installation of Hilti Power Driven Fasteners to safety related structural steel for the purpose of attachment of non-safety related metal lathe for fireproofing material support without instructions, direction or acceptance criteria for this activity."

1. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN AND THE RESULTS ACHIEVED:

Investigation of the above citation showed that a Hilti Fastener Technical Information Booklet was available to Field Engineering personnel at the time of installation of the fasteners. These directions require a minimum separation of fasteners of 1" on steel. The crafts performing the work, however, were never instructed in the vendor requirements. The fasteners were therefore installed in some instances with spacing less than the manufacturer's instructions. This condition is documented on Bechtel NCR 7519.

Project Engineering has determined that a stress calculation for the worst conceivable installation is required to evaluate and disposition the subject NCR. Towards this, worst case models were prepared at the jobsite. The models were structural steel members with pins installed on flanges and webs for various spacing including clusters of three pins and pins driven from both sides of the web at the same location to penetrate the thickness of the webs. These models were forwarded to M&QS for their review. This review was completed on 6/4/81 and the report was forwarded to Project Engineering for evaluation. Project Engineering's evaluation and final conclusions of this nonconformance will determine the need for further corrective actions.

2. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN TO AVOID FURTHER ITEMS OF NONCOMPLIANCE:

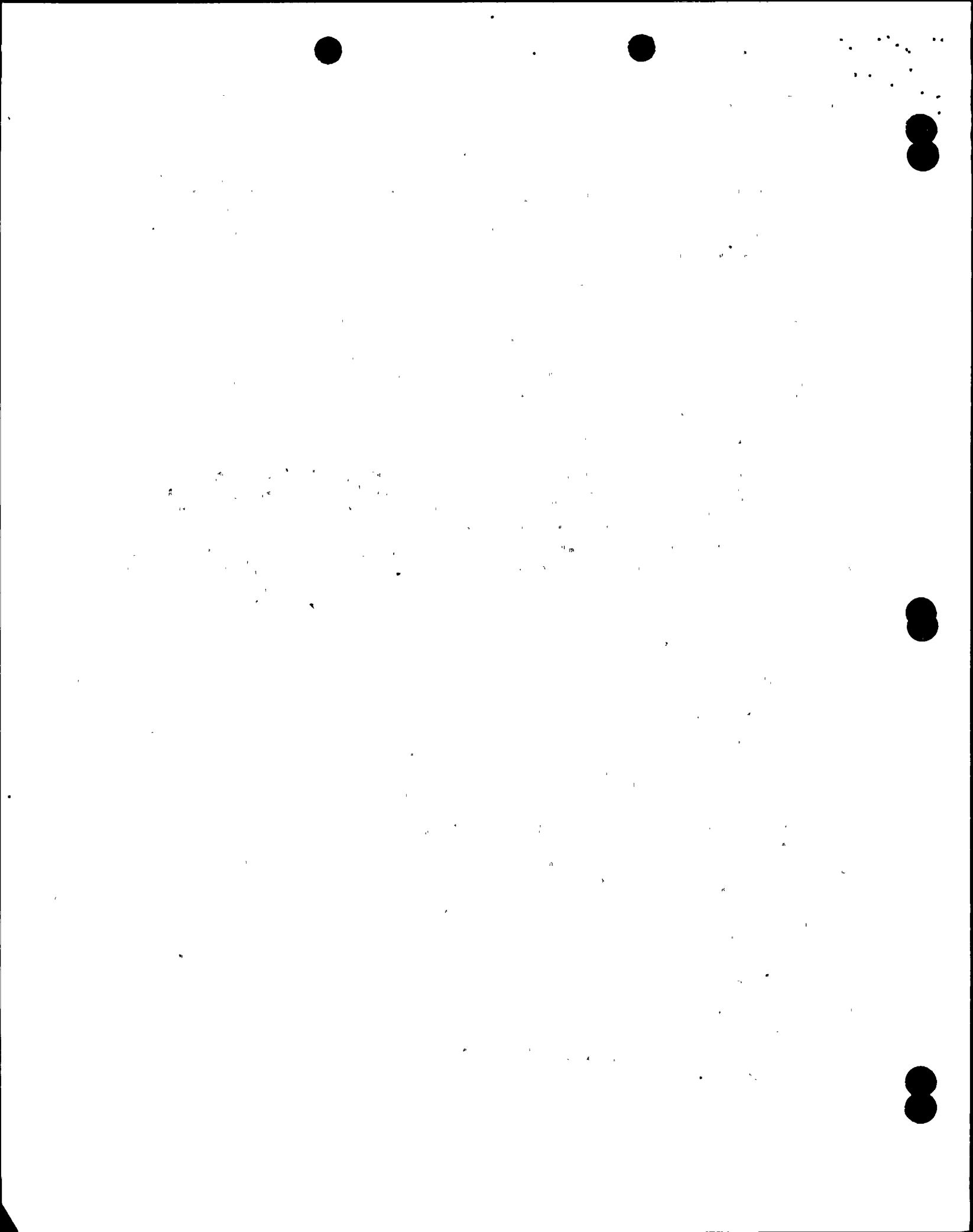
The crafts involved in installation of metal lathe and fireproofing have been verbally instructed as to the manufacturers installation requirements. This was accomplished on/or before 4/10/81.

3. THE DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

1. Project Engineering's evaluation and final conclusions should be completed by 8/3/81.
2. Depending on the results of the above evaluations, NCR 7519 is expected to be closed on/or before 12/1/81.

"3. 10 CFR 50, Appendix B, Criterion III, states, in part, that "Measures shall be established to assure that...the design basis...for those structures, systems, and components...are correctly translated into specifications, drawings, procedures and instructions."

PSAR Section D.3.3.1 of Appendix D, states, in part, that: "The project engineering team employs several documents to establish requirements... These documents include...project criteria...standard specifications and data sheets."



Contrary to the above, on March 26, 1981 the inspector observed that the Hydrogen Analyzer small pipe drawing SP-HCB-108-1 through 3, for the atmosphere sample return line, does not conform to the requirements in vendor installation instructions, which specify a maximum total vertical run of thirty (30) feet. The subject drawing indicates a total vertical run in excess of fifty (50) feet."

1. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN AND RESULTS ACHIEVED:

Bechtel Project Engineering has design responsibility for the cited sample lines. Project Engineering states that the sample line in question is adequately designed since the intent of the cited requirement is that a vertical rise of more than 30' shall not be permitted in order to prevent the trapping of condensation within the sample lines. Sample line SP-HCB-108 has a vertical drop (i.e., the flow is downward) of more than 30' which is permissible, since this arrangement is not conducive to the trapping of condensation.

The Hydrogen Analyzer equipment manufacturer, Comsip Delphi Inc., was contacted by Project Engineering on 6/19/81 and agrees that the intent of the cited instructions manual is as stated above.

2. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN TO AVOID FURTHER ITEMS OF NONCOMPLIANCE:

Comsip has committed to clarify the cited requirement and submit revised instructions to Bechtel on/or before 7/15/81.

3. THE DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Instruction Manual 015500 will be revised by 7/15/81.

"4. 10 CFR 50, Appendix B, Criterion VII, states, in part, that: "...Documentary evidence that material and equipment conforms to procurement requirements shall be available..." and "...shall be sufficient to identify the specific requirements...met by the purchased material and equipment."

PSAR Section D3.3.5 of Appendix D, states, in part, that: "The Bechtel quality assurance program includes a comprehensive system to assure that purchased material, equipment and services conform to the procurement documents".

Paragraph 6.3 of Purchase Specification 8856-J-27 requires Certified Performance Data for the Reactor Coolant Radiation Leak Detection System. Such data is used to establish minimum instrument capability.

Contrary to the above, on March 25, 1981 the inspector reviewed Isotopic Calibration Results data which had been accepted by the licensee as Certified Performance Data. Purchase Specification requirements include Isotopic Calibration Results (paragraph 10.13) as well as Certified Performance Data. The Isotopic Calibration Results data does not meet the same requirements as Certified Performance Data which is used to establish minimum detectable sensitivities within defined parameters (i.e., flow, temperatures, sample line, size and configuration, response time) necessary for detecting the 1 gpm leak rate included in Regulatory Guide 1.45".



12/25/73



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## RESPONSE:

On 7/18/77, Quality Control Receiving initiated NCR 1873 to identify the fact that Certified Performance data had not been received in accordance with Paragraph 6.3 of Design Specification J-27. The nonconformance was subsequently referred to the vendor (Nuclear Measurement Corporation) for resolution. In a letter to the Bechtel Power Corporation from Nuclear Measurement Corporation, dated 7/29/77, the vendor responded to the deficiency as follows:

"The performance data relating to the sensitivity requirements of Paragraph 6.3 (Spec 8856-J-27, Revision 2) and Regulatory Guide 1.45, are contained in Isotopic Standardization Data Sheets IT-767, Revision 0 (Isotopic Calibration of Airborne Process Monitors)."

A copy of the isotopic calibration data was subsequently sent to the site by Nuclear Measurement Corporation in fulfillment of the specification requirements. NCR 1873 was closed by Bechtel Quality Control on 9/19/77 upon receipt of the aforementioned isotopic calibration data.

Bechtel Project Engineering's subsequent review of the isotopic calibration data indicates that the required sensitivities of the radiation detectors meet the requirements of Regulatory Guide 1.45 as committed to in the FSAR for the Susquehanna Project. It should be noted that the Susquehanna FSAR in Section 5.2.5.1.2.3.1-C7, takes exception to the requirement for detecting the one gpm leak rate included in Regulatory Guide 1.45 which was cited by the inspector.

This condition represented an isolated administrative incident and is fully in compliance at this time and is considered to not require further corrective action.

"5. 10 CFR 50, Appendix B, Criterion V states in part: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, ... and shall be accomplished in accordance with these instructions, procedures, or drawings."

PP&L QA Manual Procedure 2.2, Section 5.2.1 states: "For new procedures and revisions, other than minor changes (such as typographical errors, organization name changes, and position title changes) and updating, the Manager-NQA issues the procedure as a "DRAFT" and formally distributes the procedure for review and comment to personnel and organizations which are affected."

Procedure SP-8, Section 4.2 states in part: "Functional unit managers responsible for controlling specific documents ... shall initiate, coordinate and document reviews of such documents in accordance with the applicable requirements ..."

Section 4.4 of the same procedure states: "The Manager-NQA is responsible for verifying compliance with the requirements of this procedure."

Contrary to the above, Procedures 16.0, Revision 6; 16.1, Revision 4; 16.2, Revision 4; and SP-4, Revision 2 were not subjected to the review and comment process before their approval and issuance despite major changes effected in the above procedures, and the Manager-NQA transmitted these procedures to the QA Manual holders for retention."

1. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN AND THE RESULTS ACHIEVED:

PP&L Quality Assurance Manual Procedures 16.0, Revision 6; 16.1, Revision 4; 16.2 Revision 4; and SP-4, Revision 2 were compared with the previous approved revisions in order to determine the effect of the changes that were not subjected to review. The results of that comparison are as follows:

- a. Procedure 16.0, Revision 6 deleted a reference to the Manager-Power Production who no longer has any responsibility for the Susquehanna Plant. All other changes dealt with delegation of responsibility within the NQA Section for which the Manager-NQA is directly responsible. Therefore, no additional review of this revision is required.
- b. Procedure 16.1, Revision 4 dealt with changes to delegation of responsibility within the NQA Section for which the Manager-NQA is directly responsible. Therefore, no additional review of this revision is required.
- c. Procedure 16.2, Revision 4 and Procedure SP-4, Revision 2 clarified management responsibilities within the nuclear department in two specific areas. After-the-fact reviews will be requested from the involved managers.

In addition, the details for processing potential 10 CFR 21 items were deleted from Procedure 16.2 and incorporated into NDI-QA-8.1.2, Revision 0, Reportable Defects and Noncompliance. Since this procedure has been effectively implemented since October, 1980, additional review at this time is not considered necessary.

2. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN TO AVOID FURTHER ITEMS OF NONCOMPLIANCE:

The personnel responsible for determining the need to initiate reviews of PP&L QA Manual procedure revisions have been made aware of this violation and will screen future revisions more closely.

3. THE DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

After-the-fact reviews of Procedure 16.2, Revision 4 and Procedure SP-4, Revision 2 will be completed by July 17, 1981.



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- "6. 10 CFR 50 Appendix B, Criterion V, states, in part: "Activities affecting quality shall be prescribed by documented instructions, procedures or drawings, of a type appropriate to the circumstances..."

The Susquehanna PSAR, Appendix D, Paragraph D.25 states in part: "Activities affecting quality will be prescribed by documented instructions, procedures, or drawings appropriate to the circumstances."

The PP&L Quality Assurance Manual, Supplemental Procedure SP-11, Revision 5, Section 7.1 states in part that: "Functional unit procedures shall describe the processing of Nonconformance Reports (NCRs) for inception to closeout. This description may be literal or in the form of a flow chart. This flow shall assure that NCRs are routed to allow proper, ..., trend analysis of NCR's."

Contrary to the above, no functional unit procedure exists which describes the processing of NCR's for trend analysis."

1. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN AND THE RESULTS ACHIEVED:

A Quality Control Procedure, QCP-05, NCR Trending, is being prepared that will define the mechanism for evaluating NCRs for trends, required reports, and the means for correcting trends adverse to quality.

2. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN TO AVOID FURTHER ITEMS OF NONCOMPLIANCE:

Once QCP-05 is issued, no further action is considered necessary.

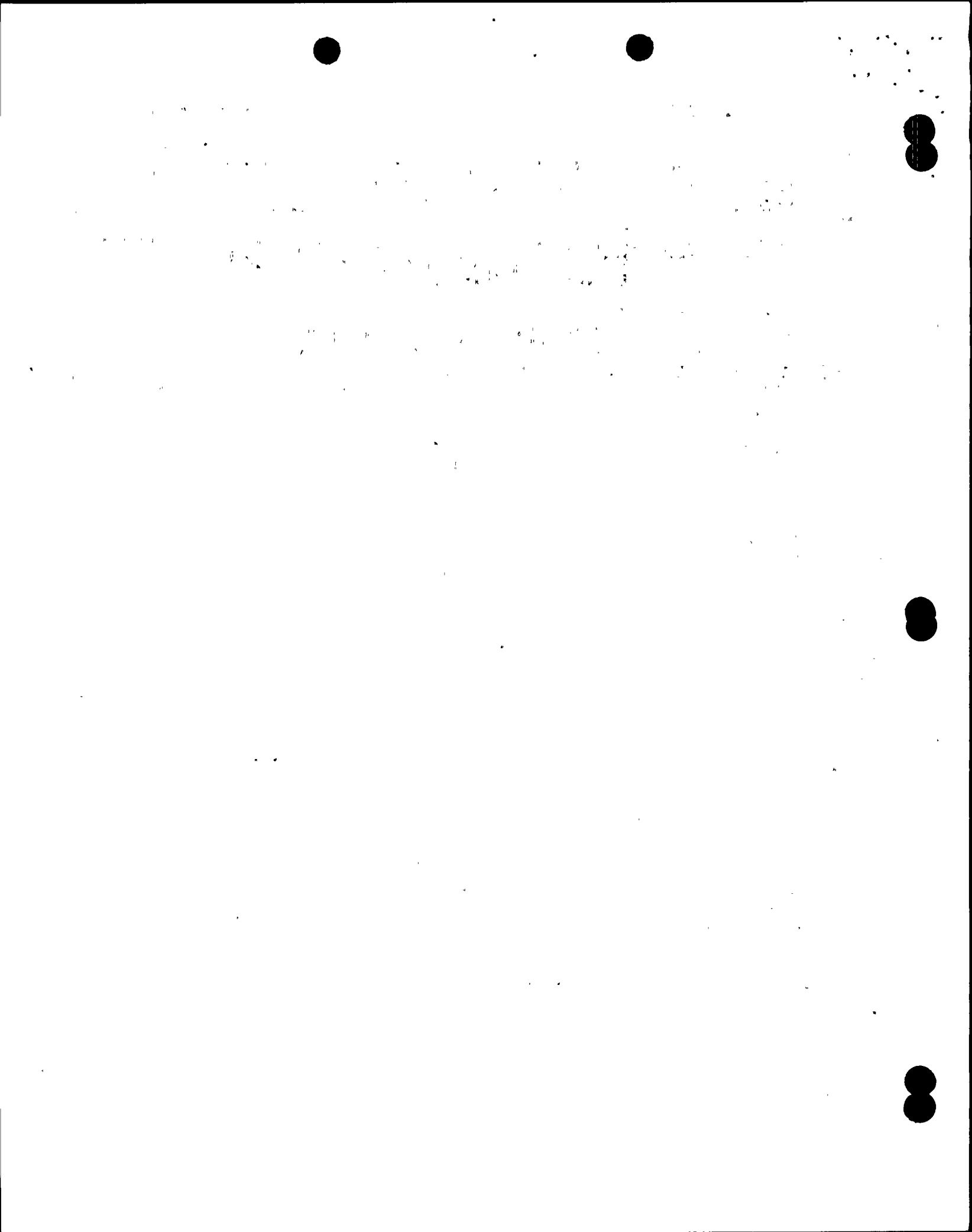
3. THE DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

QCP-05 will be issued by July 17, 1981.

- "7. 10 CFR 50, Appendix B, Criterion V states in part: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, ... and shall be accomplished in accordance with these instructions, procedures or drawings."

PP&L Susquehanna QA Manual, Procedure 1.0, Section 6.2.1 states in part: "Supplemental Procedures (SP) are issued to augment QA Manual Procedures in order to introduce additional direction for PP&L personnel and organizations performing activities during the transition from the construction phase to the operating phase."

Contrary to the above, Procedure SP-8 was issued to replace an existing approved QA procedure 5.1 in its entirety from the QA Manual."



1. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN AND THE RESULTS ACHIEVED:

A Nuclear Department Instruction, NDI-QA-8.1.3, Document Reviews, has been prepared and will replace PP&L QA Manual Procedure SP-8 for conducting detailed document reviews as part of the evolution of PP&L's procedure program to support the operation of the Susquehanna Plant. Concurrently, overall document review requirements will be reinstated in PP&L QA Manual Procedure 7.1, Control and Issuance of Documents.

2. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN TO AVOID FURTHER ITEMS OF NONCOMPLIANCE:

Although this condition is considered to be an isolated incident, the personnel responsible for QA Program development and revision have been made aware of this violation to preclude further instances of noncompliance.

3. THE DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

NDI-QA-8.1.3 will be issued by August 3, 1981.

"8. 10 CFR 50, Appendix B, Criterion V states in part: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, ... and shall be accomplished in accordance with these instructions, procedures, or drawings."

PP&L Work Instruction No. 10, Rev. 1, Section 5.1.3 states: "Qualified Auditor--any person to be designated at this level shall have:

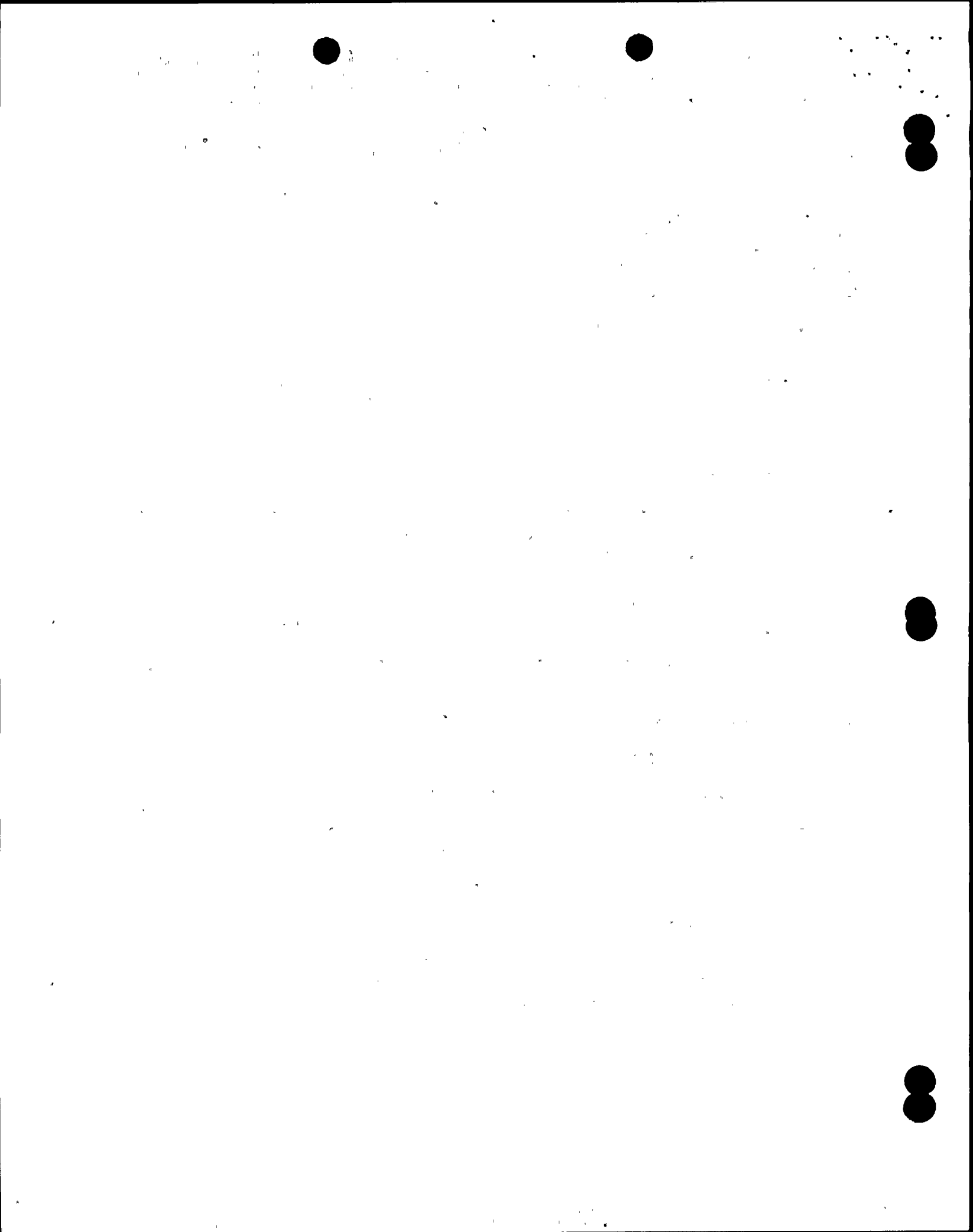
5.1.3.2 Accumulated a minimum of ten (10) points on QA Form AQ-1."

Attachment I, Rev. 1, Section I.B of the same work instruction further states: "Bachelor's degree from an accredited institution in Engineering, Physical Sciences, Mathematics, or Quality Assurance - score (3) points; other type degrees - score (2) points."

Contrary to the above, one qualified auditor's certification disclosed that the person was certified improperly by having been awarded four (4) points for a Bachelor's degree. An award of three (3) points would have precluded his certification for at least three months.

Based upon a review of paragraph 2.1.1.3 of the inspection report, this item was corrected during the course of the inspection. Therefore, no further action is required.

Also, an apparent typographical error exists in the NRC transmittal letter of May 29, 1981 in that no corrective action should have been required for Item 8 of Appendix A rather than for Item 3 as stated in the inspector's report."



Your letter also stated that PP&L was to advise you of the results of actions we have taken or plan to take to improve the design and construction program relative to the significant weaknesses identified in Appendix B, Significant Observations.

The significant weaknesses are as follows and the corrective measures are detailed below:

- "1. The status of the Susquehanna Quality Assurance Plan (SQAP) in relation to the Project QA Manual and other procedures is not well defined and understood by the QA Personnel on-site. There appears to be a great deal of divergent opinion regarding the relationship of these procedures, a non-uniformity in interpretation, and misunderstanding of requirement amongst the construction, operations, and the home office QA personnel. This is considered a weakness in the QA program."

RESPONSE:

In evaluating the inspector's concern, the following quote, extracted from PP&L QA Manual Procedure 1.0, Revision 9, PP&L Quality Assurance System, has been re-examined:

"6. QUALITY ASSURANCE SYSTEM DESCRIPTION

6.1 Susquehanna Quality Assurance Program

The SQAP, established general quality criteria levels for the planning, managing and conducting of quality assurance on SSES safety related items.

The SQAP was written to address the regulatory requirements as described in 10 CFR 50, Appendix B.

The SQAP has been applied by PP&L as a baseline document for developing the PP&L QA Manual policies and lower tier procedures. Since the SQAP is a baseline document, its content is not subject to revision except as might be necessitated by changes made to the PP&L Quality Assurance Program which is defined in Appendix D to the Susquehanna Steam Electric Station PSAR.

6.2 Quality Assurance Manual

The introduction of SQAP commitments into the PP&L QA Manual assures that the controls applied through all phases of SSES development are adequate and will result in a safe, reliable nuclear power plant."

The above excerpt is considered sufficiently descriptive of the relationship of the Susquehanna Quality Assurance Program (SQAP) to the lower tier procedures. However, it appears that the misunderstandings of NQA personnel, as detected by the inspector, reflect the need for a PP&L training session concerning this relationship. As a result, training sessions for QA personnel will be held to clarify the status of the SQAP, how it interfaces with lower tier manuals and procedures, and how its requirements are to be applied to the Susquehanna Project. These training sessions will be completed by July 24, 1981.





- "2. The licensee's QA Manual uses a reference system to augment, amplify, and incorporate additional requirements or directions contained in other procedures. However, several procedures reference a document that is not in existence thereby defeating the purpose of the reference.

Also, the QA Manual contains more than one procedure to control the same activity. There is no clear indication in each procedure as to the purpose and application of these different procedures. The procedures also lack a clear direction to the user as to where, under what circumstances, and by whom these procedures will be used.

The above examples illustrate a weakness in the licensee's QA Manual."

RESPONSE:

The first condition stated above occurred when two procedures (QAMP5.1 and SP-8) related to document reviews were combined to form PP&L QA Manual Procedure SP-8, Revision 1, Review of Documents. The incorrect cross references in several procedures will be corrected by August 10, 1981, with the next revision to the involved procedures.

The latter stated condition, regarding nonconformance control, as an example, is indicative of the fact that the PP&L Quality Assurance Program is in a state of transition from a pure construction phase program to be one that is also supportive of an operating plant.

Specifically, PP&L QA Manual Procedure SP-11, Control of Nonconformances, was prepared to detail the requirements for a PP&L implementing procedure for the control of nonconformances. As the inspector noted in Item Number 7, Appendix A to Inspection Report No. 50-387/81-08 and 50-388/81-04, supplemental procedures are listed to augment QA Manual procedures.

Therefore, QA Manual Procedure 16.0, Reporting, Control and Disposition of Nonconforming Conditions, is clearly the lead procedure. In addition, paragraph 5.5.1 of Procedure 16.0 directs that Procedure SP-11 is to be used for the control of nonconforming conditions detected by NQA's Quality Control staff when performing inspection activities.

This inspection function relative to nonconformance reporting will be clarified within the next few months when a Nuclear Department Instruction is issued to replace the existing Plant Administrative Procedure AD-00-033, Nonconformance Control; and SP-11, Control of Nonconformances.

- "3. The licensee has not established a method to evaluate turned-over equipment that is subsequently found to have conditions adverse to quality, to determine if the conditions developed before or after turnover, and, if before turnover, to determine what deficiency in the turnover process permitted an adverse condition to be overlooked.

This is considered to be a weakness in the licensee's corrective action system as applied to system turnover."



RESPONSE:

During the months of April and May several hundred documents related to the correction of conditions on turned over equipment (Startup Work Authorizations, Startup Work Requests, Bechtel NCRs on turned over equipment) were reviewed by NQA's QC staff and classified as to cause of the nonconforming condition.

The results of the review indicate that less than 2% of these items relate to conditions that should have been identified at turnover. These current results do not indicate a breakdown in the turnover process; however, continuing review of this area will be provided by implementing procedure QCP-05, NCR Trending, which will be issued by July 17, 1981, by NQA's QC group.

"4. Several areas were identified in the electrical/instrumentation area where accepted/approved design documents did not meet SAR commitments or other specified requirements. It appears that reviews of such documents lack depth with insufficient comparison between such documents and requirements and commitments. Although each of these cases were individually cited elsewhere in this report, this indicates a weakness in the design document review process."

RESPONSE:

Our response (Page 13 of this letter) to the Deviation cited in paragraph 3.2.2.4 of the NRC report specifically deals with one example which led to the inspector's concern while our response (Page 3 of this letter) to Item 3, Notice of Violations, regarding trapped condensation in pipe runs addresses a design requirement which also appears to be another basis for the inspectors concern. Other examples of the specifics cited by the inspector do not appear to support the contention.

We trust we have properly addressed the referenced Deviation while we also note that Item 3, Notice of Violations, is a matter of clarification and not a noncompliance. We therefore conclude that, with the implementation of the measures we have introduced to resolve the Deviation, we will have adequately responded to the inspector's principal concern.

"5. There are no clearly delineated procedures or practices to direct interfacing activities between on-site organizations that perform work that impacts on surveillance and maintenance of equipment stored in place. As a consequence, several instances were observed where it appeared that storage/maintenance requirements had not been met during periods such as for modification or additional installation activities, the pre-operational phase and immediately following system/component turnover.

This is a weakness in the program for in-place storage, surveillance and preventative maintenance."



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## RESPONSE:

The details referenced in the Inspection Report included both the Bechtel construction organization and PP&L's own organizations involved in the testing and operation of the equipment. Consequently, these areas will be addressed separately.

Bechtel Construction has issued Interim Memos, dated 3/21/81, to Field Procedures FP-G-11, Revision 20, Storage, Protection, Maintenance and Lay up, and FP-G-25, Revision 1, Controlling Equipment Substitutions, to provide for notifying the Equipment Storage Engineer when equipment included in the storage and maintenance program has been relocated. In addition, an Interim Memo, dated 4/9/81, was issued to Field Procedure FP-G-11, Revision 20, to ensure that the Equipment Storage Engineer is notified prior to work activities being performed which may affect the storage conditions of equipment. These Interim Memos will be incorporated into the next revision of the above procedures.

In regards to items that were identified following turnover from construction, action was initiated prior to Inspection 50-387/81-08 to address preventive maintenance requirements for turned over equipment in response to observations made during the SALP review in February, 1981. Items which have been addressed are summarized below:

- a. When systems are turned over to the Integrated Startup Group (ISG) from Construction, ISG notifies Plant Staff Maintenance and I&C/C by memorandum that the applicable storage/surveillance requirements previously conducted by Construction are now the responsibility of the Plant Staff. The requirement is stated in the Startup Administrative Manual, AD6.10, Rev. 4 (4/10/81), Equipment Maintenance and Operations Control.
- b. When the system is placed in its initial operating mode, ISG notifies the Plant Staff Maintenance Section to commence the Preventive Maintenance Program via Startup Work Request. At the time of initial calibration, the I&C/C Group automatically places the system or devices into the Preventive Maintenance Program. These requirements are specified in the Startup Administrative Manual, AD6.10, Rev. 4 (4/10/81), Equipment Maintenance and Operations Control.
- c. SSES Plant Administrative Procedure Manual procedure AD-00-047, Rev. 2 (5/29/81), Preventive Maintenance Program Prior to Fuel Load, covers Plant Staff Maintenance Section actions in response to the above notification by ISG. Once the equipment is included in the preventive maintenance program, AD-00-089, Rev. 0 (9/2/80), Computerized Preventive Maintenance Program, is the controlling document.
- d. In response to previous inspection findings, the Plant Staff I&C/C Section reviewed storage/surveillance requirements for turned over systems and entered applicable items into the preventive maintenance program.



These procedures formalize the turnover of responsibility from ISG to Plant Staff. Action required to resolve this area will be completed with the issuance of procedure AD-QA-601, Maintenance and Calibration of Installed Plant Equipment, which is scheduled for September 15, 1981.

The final point of concern identified by the inspector was the Deviation cited in paragraph 3.2.2.4, page 28 of your report. In response we submit:

1. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN AND THE RESULTS ACHIEVED:

As an integral part of accomplishing the SQRT Program for Susquehanna, PP&L Nuclear Plant Engineering has instituted an "engineering walk down activity" for the purpose of assuring that the "as built mounting information" documented in the SQRT documentation packages is correct and complete. PP&L Construction has been assigned the responsibility to coordinate the accomplishment of these walk downs, to formally document any discrepancies noted, and to follow-up on the completion of the disposition of such discrepancies. The "engineering walk down activity" was begun in February 1981 and will continue until all components within the scope of the Susquehanna SQRT Program have been assessed for the accuracy of the "as built mounting information." This assessment is scheduled for completion prior to fuel load. Evidence of the results of the engineering walk downs is contained in correspondence to Bechtel and GE engineering (e.g. PLB-12796 dated March 4, 1981, PLG-1724 dated March 13, 1981 and PLB-13068 dated April 11, 1981).

Regarding the cited lack of correlation between FSAR Section 3.10a.6.3 Part III, which provides a "Sample Seismic Static Analysis" of the mounting bolts for five standard cabinets, and the mounting bolt requirements defined in the GE manufacturing drawings, both PP&L and GE have concluded that the assumptions presented in the FSAR Sample Analysis are out of date and must be revised to reflect the current design and installation. GE has committed to prepare an appropriate FSAR Change Notice for FSAR Section 3.10a.6 upon completion of their assessment of seismic design adequacy which will be based on the Susquehanna Phase III loads. This assessment is to be completed by December 1981.

2. CORRECTIVE STEPS WHICH WILL BE TAKEN TO AVOID FURTHER VIOLATIONS:

Upon completion of the Susquehanna SQRT Program (including the completion of the engineering walk down activity described above and the reconciliation of Susquehanna design documentation and hardware with the Phase III loads), a complete review of the Susquehanna FSAR content relative to Seismic design and qualification will be accomplished. The FSAR, as may be necessary to update its content, will then be revised to preclude further violations of this nature.

3. THE DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

- o Reconciliation of the Susquehanna design documentation and hardware with the Phase III loads is scheduled for March '82.



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- o The SQRT Program for Susquehanna is scheduled for completion prior to fuel load.
- o Review of the FSAR in light of the results of the SQRT Program and the Phase III loads design effort and accomplishing any necessary FSAR revisions is scheduled for March '82.

With regard to the concern that the cited deviation may represent a need for improved effectiveness in the governing design control program, the cause of the cited deviation is not apparent from the facts currently available. Since the governing design drawing for the mounting of all GE panels to the PGCC floor modules (i.e. Dwg. # 865E254) is classified as proprietary by GE, the drawing was not made available for review by PP&L or its agent (Bechtel). The first opportunity to determine that the GE hardware did not comply with the provisions of the FSAR would normally occur at the SSES site.

The design documents in question were generated internal to GE NEBG under the provisions of their QA program. Therefore, to assess the root cause of the problem, PP&L will accomplish an audit of GE's design activity and will initiate any corrective action as may be necessary through GE. The audit will be scheduled for September, 1981.

Very truly yours,



N. W. Curtis  
Vice President-Engineering & Construction-Nuclear

ARS:sab

cc: Mr. Gary G. Rhoads  
U. S. Nuclear Regulatory Commission  
P. O. Box 52  
Shickshinny, PA 18655

