PUBLIC
SERVICE
INDIANA

S. W. Shields
Vice President - Electric System

March 6, 1980

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Docket Nos.: STN 50-546
STN 50-547
Construction Permit Nos.:
CPPR-170
CPPR-171

Dear Mr. Denton:

Public Service Company of Indiana, Inc. (PSI) has been requested to provide your office with information regarding changes in the context and organizational elements of its Quality Assurance Program. The following information is intended to fulfill this request.

I. ORGANIZATION OVERVIEW

The Vice President-Electric System (who reports directly to the President of PSI) is charged with the overall responsibility for the Marble Hill Project Quality Assurance Program. The Marble Hill Project Quality Assurance Manager reports directly to the Vice President-Electric System and is organizationally independent of cost and schedule considerations as shown on Figure 1. The Quality Assurance Manager has the authority and responsibility to implement the necessary controls to assure that the Marble Hill Project Quality Assurance Program meets all NRC requirements.

The only significant changes made to the Quality Assurance Organization are the clarification and augmentation of Stop Work authority, the simplification of documentation of nonconforming situations and the reorganization and upgrading of personnel experience levels.

NONE 3.1 see LIST

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II. DETAILED PROJECT ORGANIZATION

A. Project Director

The Project Director, reporting to the Vice President-Electric System, is responsible for direction and coordination of the efforts of PSI organizations participating in the Marble Hill Project and the following:

1. Interface with the Vice President-Engineering, the Vice President-Construction and the Quality Assurance Manager to assure adequate manpower and resources are available in support of the project.

2. Direction of the Construction Manager, Project Engineering Manager, Project Control Manager and Project Administrator in the design, procurement, construction, testing and equipment control of the project.

The Project Director will direct and coordinate the work of the NSSS vendor, the Architect-Engineer, Sargent & Lundy Engineers (S&L), PSI organizations, consultants and other associated company functions as required to provide a safe, reliable facility. His responsibilities include the implementation and execution of effective design reviews both within PSI organizations and in S&L's staff, the analysis of bids, purchase recommendations, budgetary analysis, schedule preparation, progress reports and licensing contacts with the NRC Project Manager.

B. Project Engineering

The Project Engineering Organization is headed by the Project Engineering Manager who reports to the Project Director. The Project Engineering Organizational structure is shown on Figure 2. The Project Engineering organization has overall responsibility for direction and coordination of design activities and performs reviews of technical documents as well as assuring that technical reviews are accomplished by other affected PSI organizations. The Project Engineering Organization is also responsible for assuring control of design changes and consistency with PSAR/FSAR commitments. The Project Engineering Administrator, who reports to the Project Engineering Manager, is responsible for the control of design documents at the Marble Hill site and for maintenance of a Document Control Center.

C. Construction

The Project Construction Organization is headed by the Construction Manager, who reports to the Project Director. The Construction Organization is shown on Figure 3. The Construction Manager is responsible for the following:

1. Overall responsibility for coordination of the Marble Hill site construction and fabrication.

2. Monitoring Contractor performance to commitments and schedules.

3. Coordination of Contractor interfaces.

4. Direction of the Construction Test Program at the site to assure tests required to verify the integrity of the construction work are performed and documented.

5. PSI contractual acceptance of structures and systems from Construction Contractors.

The Construction Area Managers report to the Construction Manager and are responsible for day-to-day coordination of site construction activities within their respective areas. Within their areas, they are also responsible for:

1. Coordination of Construction Contractor access to work areas.

2. Reporting progress to the Construction Manager.

3. Assuring Contractors take action on nonconformances from specified requirements identified by the Quality Assurance Department or other PSI organizations.

The Systems Turnover Manager reports to the Construction Manager and has the following responsibilities:

1. Authorizing issuance and use of construction test procedures prepared by either Construction Contractors or PSI.

2. Coordinating Construction Contractor participation in the Construction Test Program including test performance, notifications to PSI and performance of necessary repairs or correction of deficiencies.

3. Coordinating acceptance of completed systems, structures and components from Construction Contractors following successful completion of applicable construction testing.

4. Coordinating the distribution, review and comment activities of Construction Testing Program documents.

5. Directing and coordinating support personnel and others during performance of Construction Tests including appropriate interface with Station Operators.

The Resident Engineer reports to the Construction Manager and is responsible for providing field engineering services to the Construction Area Managers. The overall scope of these responsibilities includes:

1. Preparation of Field Design Change Requests based on input from the Area Managers and/or Contractors.

2. Review of Contractor-prepared procedures.

3. Review and resolve nonconformances within guidelines provided by Project Engineering and Quality Assurance.

D. Project Control

The Project Control Organization is headed by the Project Control Manager, who reports to the Project Director. The Project Control organizational structure is shown on Figure 4. The Project Control Manager is responsible for the following:

1. Development and statusing of project schedules.

2. Construction cost control.

3. Assurance that PSI purchased materials, parts and components are adequately controlled during receipt, storage and handling until released to Contractors so that traceability to supplier quality verification records is maintained and damage or deterioration is prevented.

The Manager Material Management reports to the Project Control Manager and has the following responsibilities:

1. Assuring storage instructions are obtained for PSI and Contractor stored materials, parts and components purchased by PSI.

2. Maintenance of records of materials, parts and components stored by PSI.

3. Protection, maintenance and preservation of materials, parts and components stored by PSI.

4. Maintaining records of materials, parts and components released by PSI to Contractors.

5. Assuring Suppliers and Contractors provide prompt Dispositions, or Corrective Actions when required, for nonconforming conditions related to receipt and storage of items and materials.

E. Project Administration

The Project Administration Organization is headed by the Project Administrator, who reports to the Project Director. The Project Administrator is responsible for the following:

1. Processing Procurement Change Orders.

2. Maintenance of PSI warehouses and storage areas.

3. Interfacing with the Operations Organization for the administration of Construction Site Security.

4. Control and issuance of Project Management Manual.

F. Quality Assurance Department

The Quality Assurance Organization is headed by the Quality Assurance Manager who reports directly to the Vice President-Electric System. The Quality Assurance organizational structure is shown on Figure 5.

The PSI Quality Assurance Organization is assigned responsibility for checking, auditing, inspecting or otherwise verifying that quality-related activities are correctly performed. The Quality Assurance Manager is the individual responsible for managing the PSI Quality Assurance Program and for directing and controlling the Organization's conformance to quality requirements. The

Marble Hill Project Quality Assurance Manual (MQAM) designates specific quality assurance functions to be accomplished by the Quality Assurance Organization and thereby delegates corporate authority for performance of these functions. Specific quality assurance functions include:

1. identifying quality problems;

2. initiating, recommending or providing solutions; and

3. verifying implementation of solutions.

The PSI corporate structure is such that the Quality Assurance Manager reports to the vice president level of executive management (specifically, the Vice President-Electric System). This reporting level is the same as that of the highest line manager directly responsible for performance of quality-affecting activities. The Quality Assurance Organization is therefore independent of undue influences and responsibilities for schedules and costs and has sufficient organizational freedom to perform quality assurance functions. The reporting structure also affords direct quality assurance access to PSI executive management, which assures the availability of support as required to carry out quality assurance responsibilities.

The Quality Assurance Organization is divided into three functional organizations: Quality Engineering, Inspection and Quality Systems.

The Quality Assurance Manager is responsible for:

1. The adequacy of the Quality Assurance Program, interpretation of Quality Assurance requirements and effectiveness of the Program's implementation.

2. The use of appropriate techniques to assure conformance of all activities affecting quality to the Program's requirements.

3. Assuring the adequacy, clarity and appropriateness of all PSI Quality Assurance oriented communications and commitments directed to Regulatory Agencies, Contractors and Suppliers.

4. Assuring that actions such as Quality Assurance Program review, surveillance and audits are taken to require Contractors and Suppliers to comply with applicable Quality Assurance commitments.

5. Appropriately exercising the authority vested in the Quality Assurance Organization to cause the acceptance or rejection of work, materials and equipment based on conformance to engineering requirements or failure to meet procurement requirements.

6. Apprising the Vice President-Electric System and Project Director of the project quality status by periodic reporting on quality activities, trends and problems through implementation of a corrective action system.

7. Coordinating applicable activities of Regulatory Agencies such as audits, inspections or investigations with the affected organization manager(s).

8. Appropriately exercising authority to stop nonconforming work.

9. Developing and maintaining current the PSI project and ASME Quality Assurance Programs and Manuals (PQAM and AQAM).

10. Maintaining staff of a sufficient size and qualification to support required audit, surveillance and program development activities.

The Manager Quality Engineering reports to the Quality Assurance Manager and is responsible for:

1. Supervision, coordination and direction of the various discipline Superintendents Quality Engineering to assure adequate organization and control of the Quality Engineering function.

2. Maintaining communication and coordination between the various discipline Superintendents Quality Engineering and other PSI and Contractor organizations.

The Superintendents of Quality Engineering (Electrical, Mechanical, Welding/NDE and Civil) all report to the Manager Quality Engineering and are responsible for Quality Assurance matters within their discipline, including:

1. Review of selected Engineering Documents to verify the appropriateness of and conformance to applicable quality requirements.

2. Review of selected Supplier and Contractor Documents to verify the adequacy and conformance with quality-related requirements.

3. Preparation, review and approval of PSI initiated inspection/surveillance plans and procedures or checklists which contain acceptance criteria to assure the adequacy and appropriateness of conformance verification requirements.

3. Review of the effectiveness of the practices, adequacy and performance of Marble Hill Contractors' and Suppliers' Quality Assurance Programs.

5. Review of Nonconformance Reports (NCRs) generated during design, construction and testing to verify that appropriate quality considerations are applied to the dispositioning and resolution of the identified deficiencies.

6. Maintaining awareness of inspections performed by the Nuclear Regulatory Commission (NRC) and to assist the coordination of efforts by affected organizations.

7. Verifying that design, construction and testing activities are controlled by suitable written procedures and instructions to ensure proper planning and accomplishment of work in an organized manner; and verifying that such planning takes into account equipment and service availability, weather protection and housekeeping.

The Superintendent Procurement Quality Assurance reports to the Manager Quality Engineering and is responsible for:

1. Coordinating procurement related interfaces between the discipline Quality Engineering and Inspection Superintendents, and Suppliers or Contractors to assure that:

   a. Preaward surveys are performed as necessary.

   b. Quality Assurance records requirements are defined and provided.

c. A witness and hold point program is determined by Quality Engineering and provided to the Superintendent Inspection.

d. Surveillance and receipt inspection checklists are prepared consistent with the schedules for manufacture or construction.

2. Maintaining the Approved Supplier and Contractor List.

3. Reviewing of Supplier and Contractor quality trends and recommending necessary corrective action to the Quality Assurance Manager.

The Superintendent Inspection reports to the Quality Assurance Manager and is responsible for:

1. The supervision of PSI activities related to the performance of Supplier surveillance, receiving inspection and Contractor surveillance.

2. Assuring that inspection and surveillance activities are performed by trained and qualified personnel in accordance with regulatory requirements.

3. Assuring that inspection records resulting from inspection and surveillance functions are properly completed, legible and authenticated.

4. Verification of the as-built condition of Marble Hill structures and systems.

The Superintendent Quality Systems reports to the Quality Assurance Manager and is responsible for:

1. Developing and maintaining the Project and ASME Quality Assurance Manuals (PQAM and AQAM) and supporting quality procedures.

2. Providing quality-related inputs to changes affecting the PSAR/FSAR.

3. Determining the need for, providing or arranging for and documenting Quality Assurance training of personnel.

4. Scheduling and coordinating the PSI Quality Assurance Audit Program.

5. Assuring retrieval of and maintaining Supplier and Contractor quality verification records.

6. Coordinating NRC inspection activities and follow-up to assure correct resolution and prompt closeout of inspection findings.

7. Performing and coordinating long-range planning and organization studies to establish requirements for transition from construction to operations.

8. Determining and coordinating Quality Assurance start-up responsibilities.

9. Establishing a Quality Assurance trending program to provide a management tool for tracking and trending of nonconformances.

III. QUALITY ASSURANCE PROGRAM MODIFICATIONS

The PSI Marble Hill Quality Assurance Program description has been reorganized and now is contained in the Project Quality Assurance Manual (PQAM). This reorganized description of the Program did not alter PSI's previous commitments to meet 10 CFR 50, Appendix B and related guides and standards. The Program is still mandatory and applies to those activities which affect the quality of nuclear safety-related items, material and systems as further described in Project Management Procedures. The Program includes Contractor and Supplier activities and services affecting quality or safety.

Table 1 designates the PQAM sections which provide compliance with each 10 CFR 50, Appendix B, criterion.

Activities relating to the ASME Section III Code piping systems are conducted in accordance with the ASME Quality Assurance Manual (AQAM). The AQAM complies with the requirements of the ASME Boiler and Pressure Vessel Code, Section III, and, by reference, is part of and not in conflict with the PQAM.

The Marble Hill PQAM and AQAM and changes thereto, are approved by the Quality Assurance Manager, Project Director and Vice President-Electric System.

PSI has also more clearly defined the authority of the PSI Quality Assurance Organization to stop nonconforming work

or processes. The PSI Quality Assurance Organization has full authority to stop further processing of items or materials by PSI or its Suppliers and Contractors; to identify quality problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions. The individual stopping further processing is responsible for documenting the nonconforming condition on a Nonconformance Report or Corrective Action Request as appropriate. Once further processing has been stopped, the organization responsible for the activity which was stopped shall not resume this activity until the conditions of the Nonconformance Report or Corrective Action Request have been corrected or dispositioned and the PSI Quality Assurance Manager has provided documented authorization to resume processing.

The Quality Assurance Manager has the full authority to stop work of any PSI Contractor or Supplier organization which, in his judgment, must be stopped in order to correct poor quality trends or performance. This Stop Work Authority includes such things as a single process and broader scope activities such as entire design activities of an organization, installation activities of a Contractor and fabrication or processing of PSI purchased materials or items. The Quality Assurance Manager is responsible for orally stopping the work by notifying appropriate management in the affected organization. The stop work is documented on a Stop Work Order which is signed by the Quality Assurance Manager. Documentation of the Stop Work Order includes conditions or actions required prior to restart of the work. Once the conditions requiring correction have been acted upon and have been verified to be acceptable by the Quality Assurance Manager, he removes the Stop Work Order by signing the release portion of the Stop Work Order. Completed Stop Work Orders are retained as Quality Verification Records.

The Vice President-Electric System is responsible for reviewing and evaluating the status and effectiveness of the PSI Quality Assurance Program. The primary elements of management participation are by review of Quality Assurance Reports and establishment of a Quality Assurance Review Committee (QARC), which holds meetings to review quality Assurance Program activities. An annual independent audit shall be performed at the direction of the Vice President-Electric System which assesses the scope, implementation and effectiveness of the Quality Assurance Program to assure that the program is meaningful,

effectively complies with applicable codes, standards and regulatory guides and effectively implements all elements of the Quality Assurance Program as stated in the PQAM. Reports containing the results of the audit shall be reviewed and appropriate action taken as directed by the Vice President-Electric System.

The information above describes the programmatic and organization changes instituted in PSI's Quality Assurance Program and is intended to fulfill the NRC's request for updated information.

Please advise if you have questions concerning this material.

Sincerely,

S. W. Shields

SWS:ka

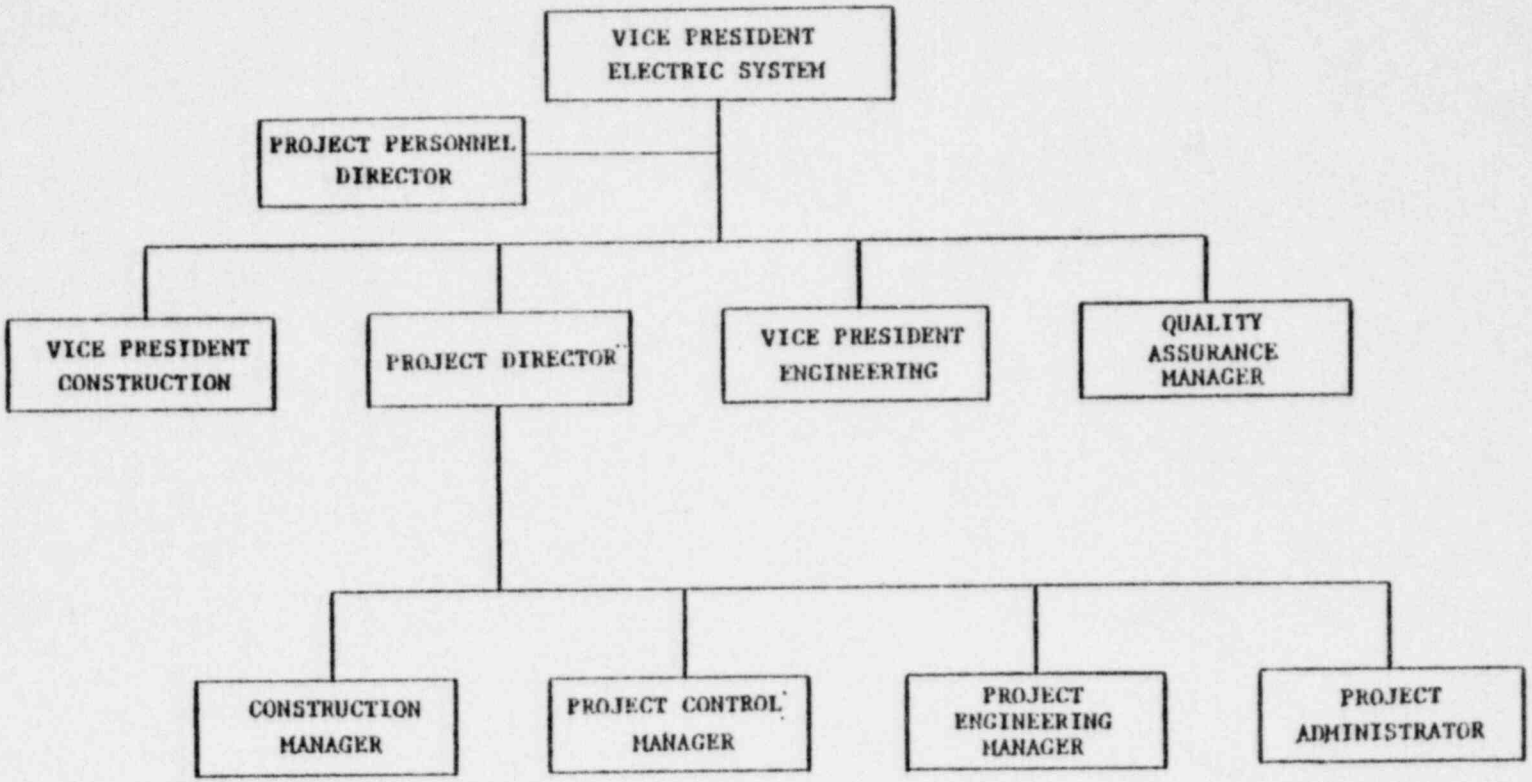
cc: J. G. Keppler
E. R. Schweibinz, P. E.
J. J. Harrison

TABLE 1

MARRBLE HILL PROJECT QA MANUAL COMPLIANCE WITH
10 CFR 50, APPENDIX B, CRITERIA

	QA MANUAL SECTION	10 CFR 50, APPENDIX B, CRITERIA
QUALITY ASSURANCE POLICY STATEMENT		N/A
1	ORGANIZATION	CRITERION I
2	QUALITY ASSURANCE PROGRAM	CRITERION II
3	DESIGN CONTROL	CRITERION III
4	PROCUREMENT DOCUMENT CONTROL	CRITERION IV
5	INSTRUCTIONS, PROCEDURES AND DRAWINGS	CRITERION V
6	DOCUMENT CONTROL	CRITERION VI
7	CONTROL OF PURCHASED MATERIAL, ITEMS AND SERVICES	CRITERION VII
8	IDENTIFICATION AND CONTROL OF ITEMS AND MATERIAL	CRITERION VIII
9	CONTROL OF SPECIAL PROCESSES	CRITERION IX
10	INSPECTION	CRITERION X
11	TEST CONTROL-DESIGN, PROCUREMENT AND CONSTRUCTION PHASE	CRITERION XI
12	CONTROL OF MEASURING AND TEST EQUIPMENT	CRITERION XII
13	HANDLING, STORAGE AND HOUSEKEEPING	CRITERION XIII
14	INSPECTION, TEST AND OPERATING STATUS	CRITERION XIV
15	NONCONFORMING MATERIALS AND ITEMS	CRITERION XV

16	CORRECTIVE ACTION	CRITERION XVI
17	QA RECORDS	CRITERION XVII
18	AUDITS	CRITERION XVIII



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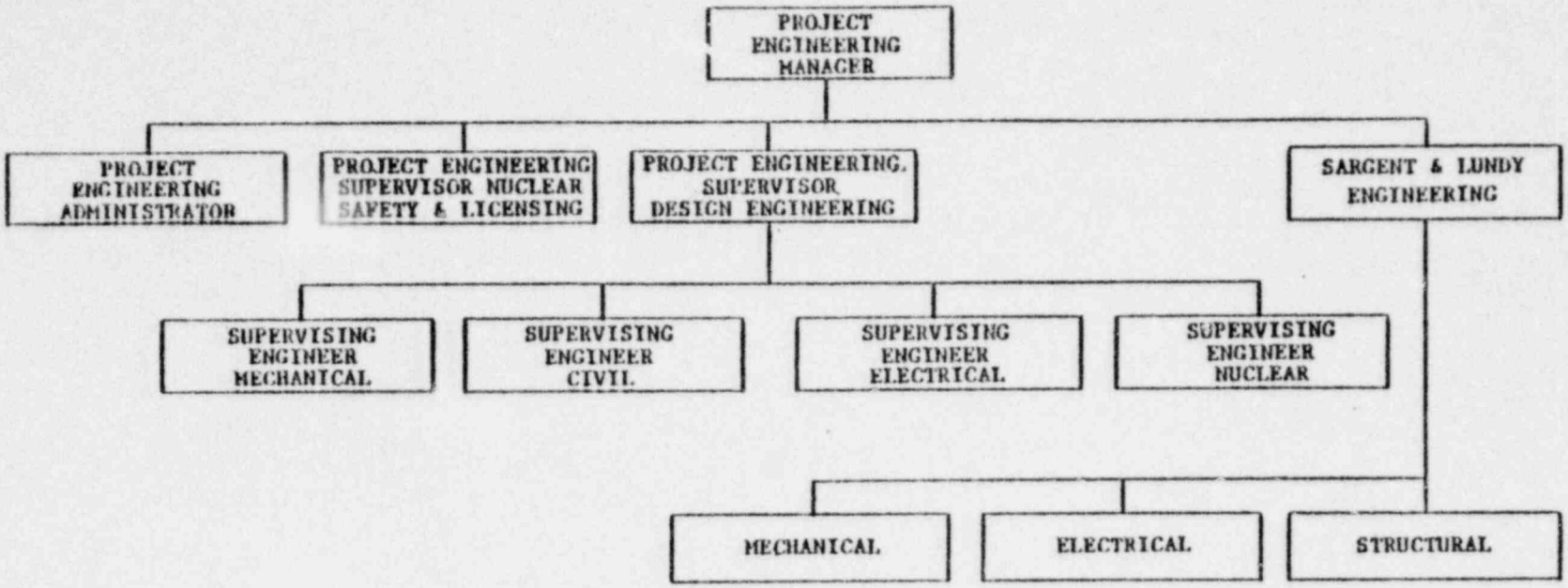
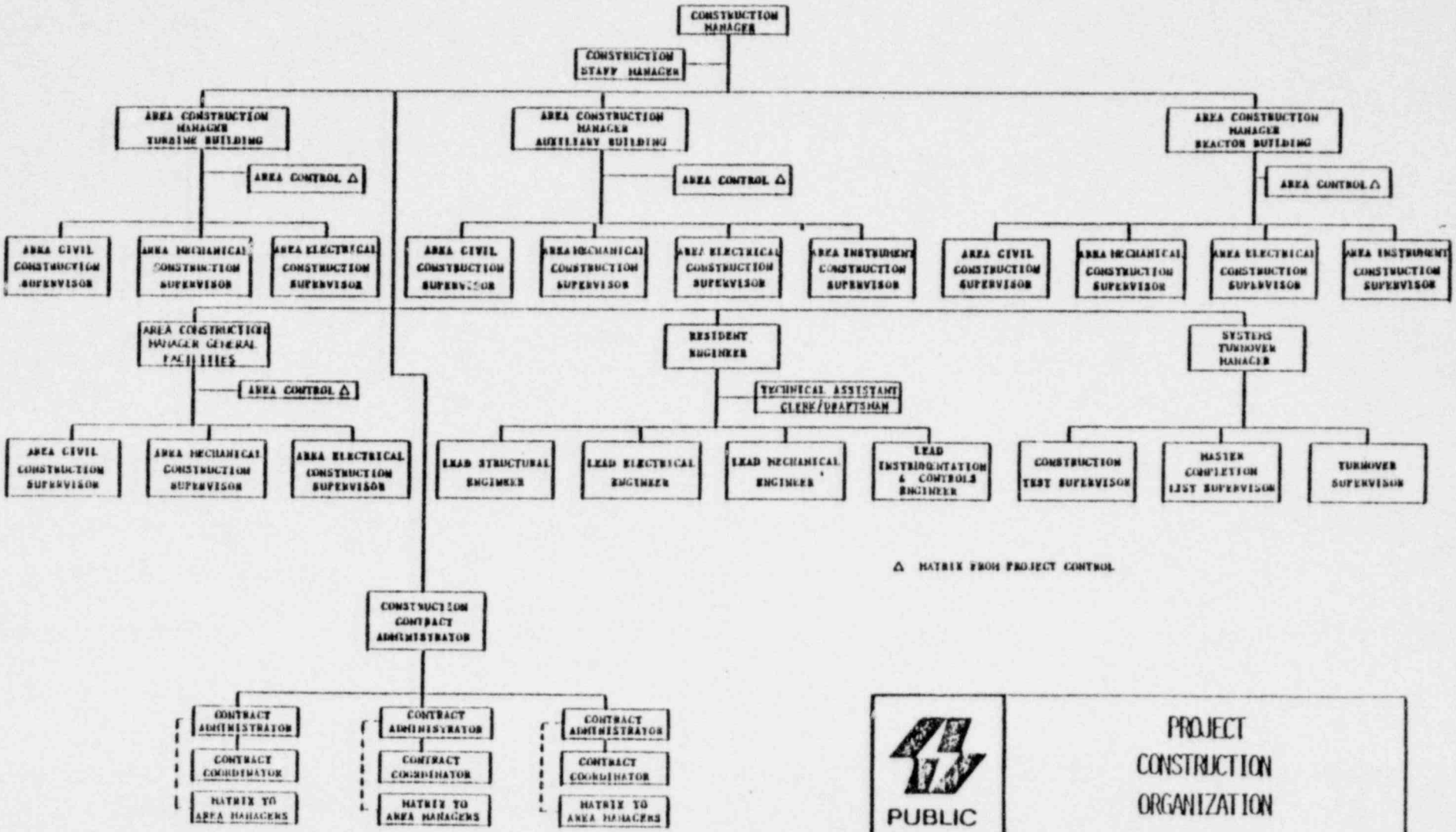
REVISED PROJECT ORGANIZATION

FIGURE 1 | AS OF 2-80



JBLIC SERVICE INDIANA	PROJECT ENGINEERING ORGANIZATION	
	FIGURE 2	AS OF 2-80



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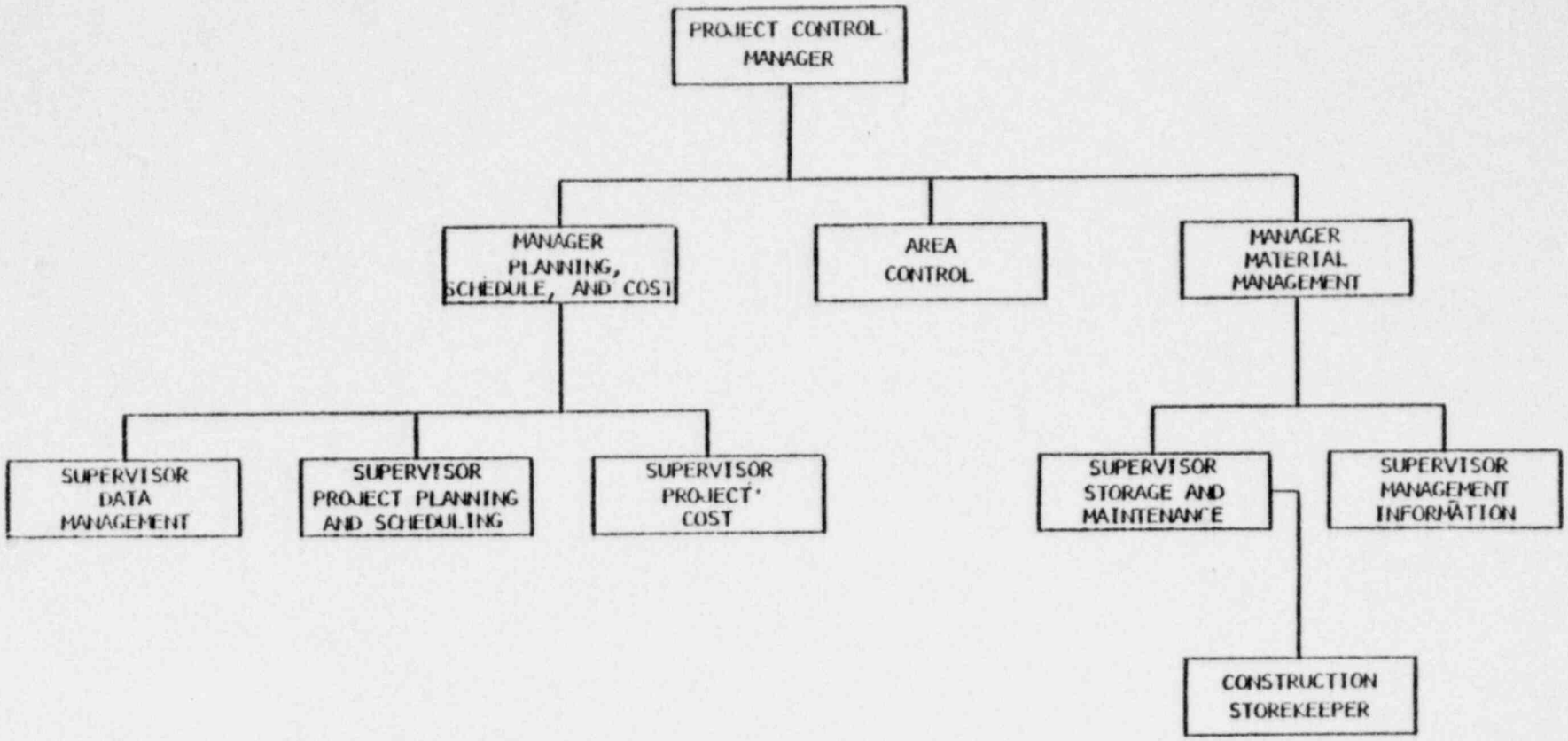
PROJECT CONSTRUCTION ORGANIZATION

FIGURE 3 | AS OF 2-80



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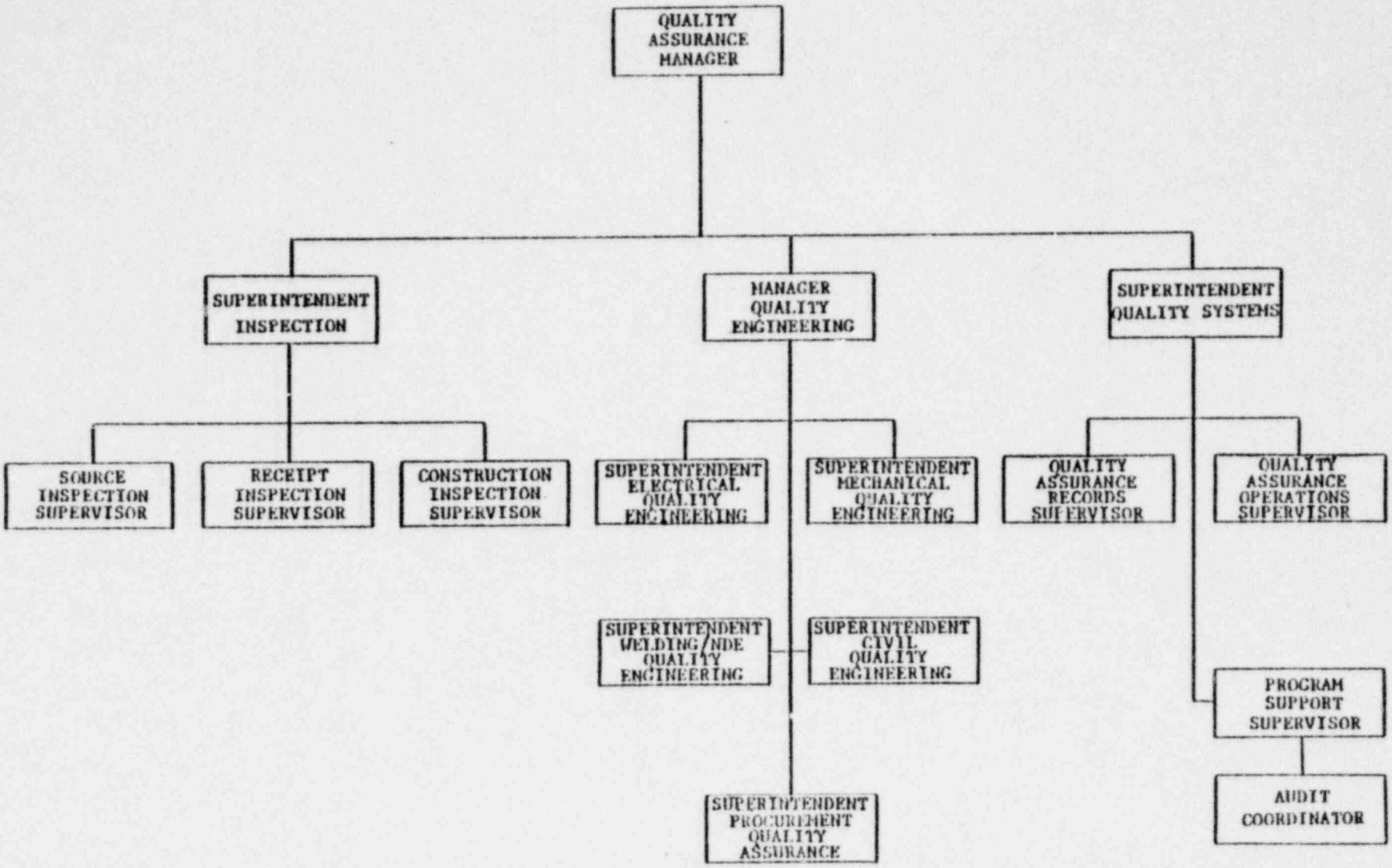
PROJECT CONTROL ORGANIZATION

FIGURE 4 | AS OF 2-80



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PROJECT QUALITY ASSURANCE ORGANIZATION

FIGURE 5

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