Westinghouse Electric Corporation
Water Reactor Divisions

NS-EPR-2666
PI&DA-82-2568

Nuclear Technology Division
Box 355
Pittsburgh Pennsylvania 15230

REF: 1) NS-TMA-2456
2) NS-EPR-2651
3) NS-EPR-2647
4) Letter from W.P. Haass to E.P. Rahe, Jr. dated 9/15/82

October 14, 1982

Mr. Walter P. Haass
Quality Assurance Branch
Division of Engineering
Nuclear Regulatory Commission
1717 H Street
Washington, D.C. 20555

Dear Mr. Haass:

SUBJECT: CLARIFICATION OF W NFD QUALITY ASSURANCE PROGRAM PLAN (WCAP-7800) REVISION 5A AND W WRD QUALITY ASSURANCE PROGRAM PLAN (WCAP-8370) REVISION 9A, AMENDMENT #1

This letter is in response to your request for clarification regarding the Quality Program at the Westinghouse Specialty Metals Plant. Additionally, this letter is to notify you of an organizational restructuring within Water Reactor Divisions (WRD) effective September 27, 1982.

As noted in NS-EPR-2651, the quality program at the Specialty Metals Plant will remain in effect until further notice.

The Specialty Metals Plant was and is a supplier of fuel tubing to the Columbia Plant of the Nuclear Fuel Division. As such, a customer/supplier relationship existed wherein all technical and quality requirements were transmitted to SMP through the use of purchase orders. In order to be considered as a qualified supplier, SMP is required to comply with the requirements of WCAP-7800, Revision 5A, as delineated in quality requirements included in Nuclear Fuel Division purchase orders. All quality assurance functions required by WCAP-7800 such as auditing and surveillance are conducted by NFD at SMP. The relationship between plants will remain as described until further notice.

Other Westinghouse Water Reactor Divisions who maintain a similar customer/supplier relationship with SMP will do so using their respective quality assurance programs to control suppliers.

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In response to our commitment to submit Revision 10 of WCAP-8370, we agree that our previous commitment to submit Revision 10 of WCAP-8370 to the NRC within 90 days of the issuance of Revision 3 of Regulatory Guide 1.28 may no longer be meaningful considering the presumed delay in issuance of that Regulatory Guide. However, this commitment was originally made (Reference 1) under the assumption that programmatic changes would not be necessary until Regulatory Guide 1.28, Revision 3 was issued.

Presently, the QA program described in WCAP-8370, Revision 9A, Amendment #1 is an accurate description of the W WRD QA program controls. Therefore, absent any specific need (e.g., NRC license proceedings find WCAP-8370 unacceptable or an actual WRD QA program change), a revision submittal date for WCAP-8370 is not necessary. If a Quality Assurance Program change becomes necessary or desirable, a revision of WCAP-8370 will be submitted to the U.S. NRC for approval in a timely manner.

A new group has been formed in the Nuclear Technology Division (NTD) Product Integrity and Design Assurance Department (PI&DA) reporting to Mr. H. H. Brunko, Acting Manager, PI&DA. This group, the Design Assurance Preheat Steam Generator Programs group is responsible for assuring that the WRD QA Plan is implemented on all activities associated with the preheat steam generator effort. This group will draw upon the resources of the entire Product Integrity and Design Assurance Department in order to focus appropriate design assurance and quality assurance control on the preheat steam generator activity.

In Nuclear Operations Division (NOD) the U.S. Projects Department also includes the site service function for each construction site that was previously in the Nuclear Service Division. This function provides technical advisory services during the design and construction phase of a nuclear power plant including initiation of reports of nonconformances of equipment during construction as described in paragraph 17.1.15 of WCAP-8370. Our previous notification incorrectly identified this as a part of the Nuclear Services Integration Division.

Attachments A and B are provided as a means to describe, in topical report format, the WRD organization. Attachment A provides current organization charts (Figures 17-1 and 17-3) that supercede Figures 17-1 and 17-3 provided to you via letter NS-EPR-2647. Attachment B is the c ent organizational description, written in the format of Section 17.1.1.1 of WCAP-8370.

If you have any questions concerning information contained herein, please contact Mr. R. A. Wiesemann at (412) 373-5132.

Very truly yours,

WESTINGHOUSE ELECTRIC CORPORATION

E. P. Rahe, Jr., Manager
Nuclear Safety

MHShannon/krm

Attachments

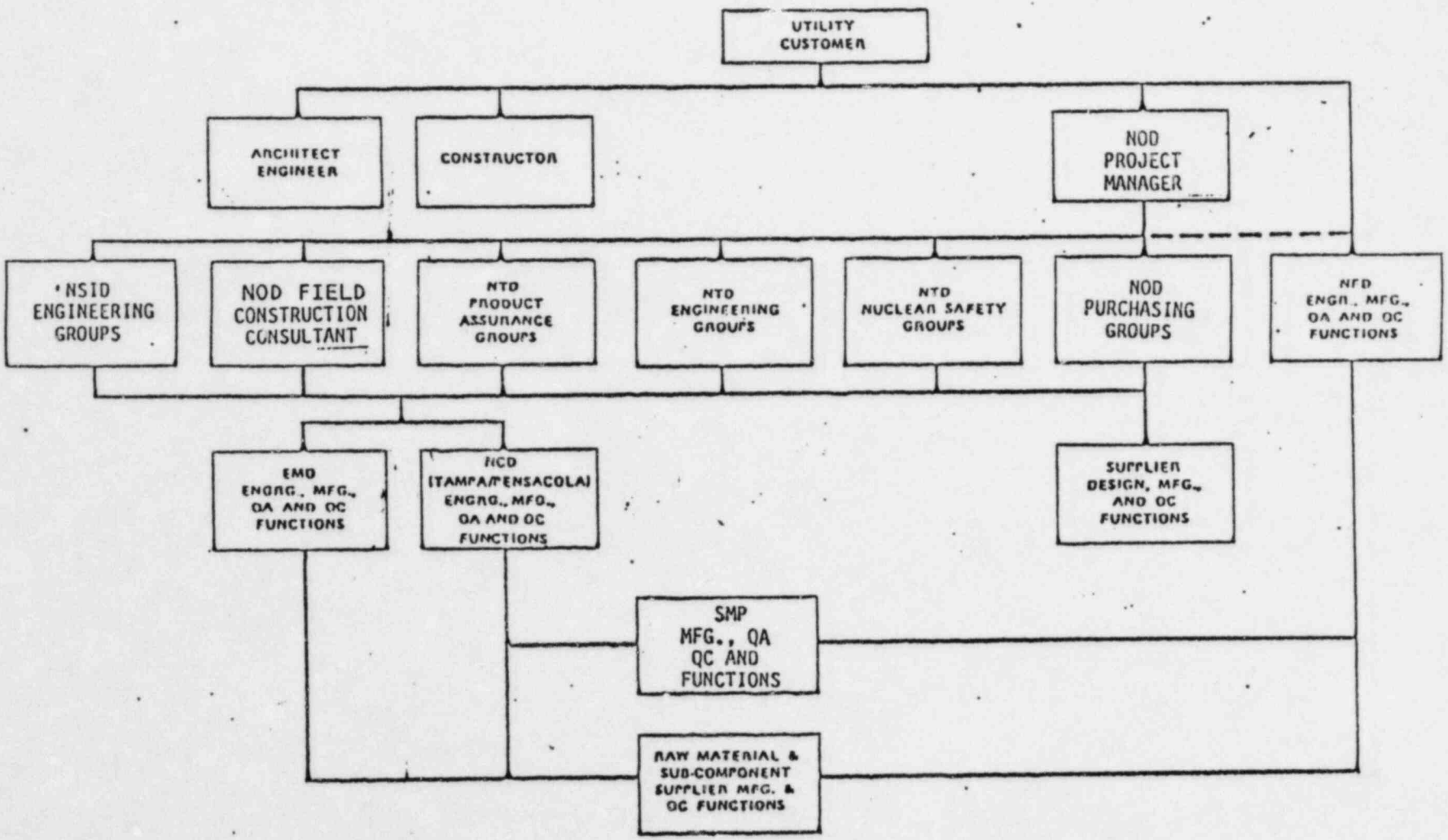

FIGURE 17-1. NSSS Functional Relationship Chart

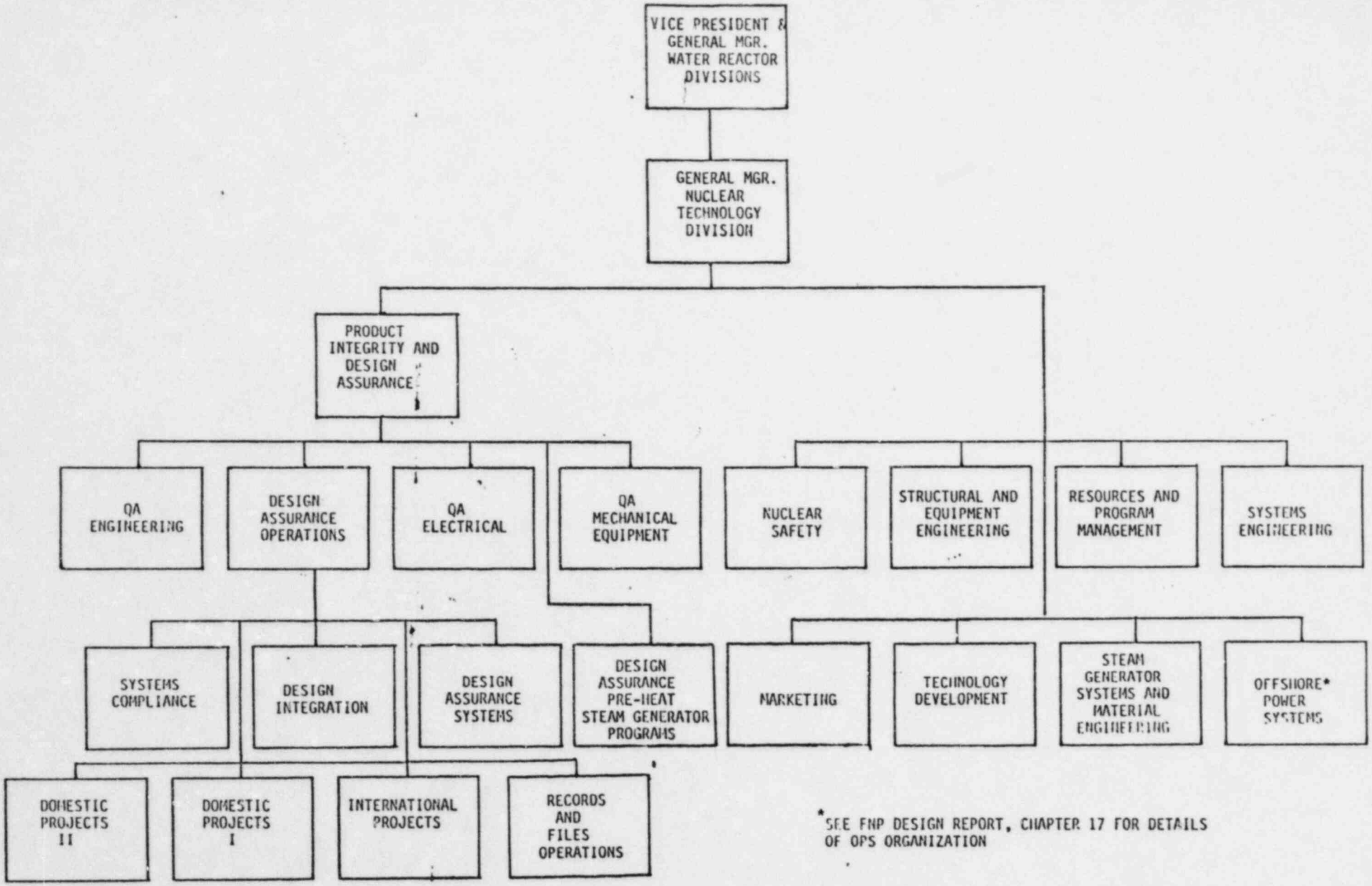

FIGURE 17-3 Nuclear Technology Division Quality Program Organization

17.1.1.1 Nuclear Technology Division

Nuclear Technology Division, as shown on Figure 17-3, has Water Reactor Division lead responsibility with regard to development of Nuclear Safety and Product Assurance Policy, systems design and integration of equipment design.

The engineering function of Nuclear Technology Division is provided by several departments. These groups are responsible for performing the various technical functions associated with overall system design and design of equipment and for following and concurring with the remainder of the design cycle in the Nuclear Components Division, Electro-Mechanical Division and Nuclear Services Integration Division.

The Nuclear Safety Department is responsible for providing the Nuclear Steam Supply System safety performance requirements, safety system criteria, safety analysis methods, and safety evaluations to provide the required analytical and statistical evaluation of postulated accident controls. Further, the department is charged with providing the licensing activity to support the applicant in obtaining the construction permit and operating license for the nuclear power plant.

The Offshore Power Systems Department is responsible for all activities associated with Floating Nuclear Plants. The quality assurance activities associated with FNP are provided in the FNP Design Report, Chapter 17. When OPSD performs engineering services for other nuclear plant items, the requirements of this Quality Assurance Program Plan apply.

Within Nuclear Technology Division, responsibility for quality assurance activities is assigned to the Product Integrity and Design Assurance Department. This includes having lead responsibility for developing, documenting and executing the Quality Assurance Program, and demonstrating compliance with the 18 criteria of 10CFR Appendix B. The Manager of Product Integrity and Design Assurance reports directly to the

division general manager and is parallel with the other major departments within the division, as shown in Figure 17-3. Thus, matters pertaining to product and system quality can be related directly from the Product Integrity and Design Assurance manager to the division general manager, independent of other functional activities. The qualification requirements for the Product Integrity and Design Assurance Manager are:

1. A bachelor's degree in a technical field;

2. At least ten years experience in engineering or manufacturing with at least one of these years in quality assurance activities;

3. At least five years experience in management of technical or manufacturing organizations:

4. Working knowledge of applicable quality-related codes, standards, regulatory and statutory requirements; and

5. Demonstrated ability to prescribe, apply and assess compliance with applicable requirements.

Training relevant to quality assurance activities and pertinent to the position is described in Section 17.1.2.

The Product Integrity and Design Assurance Manager directs, controls and evaluates the Nuclear Technology Division Quality Assurance Program. This is accomplished through the development, coordination and publication of divisional policies and procedures, conduct of instruction and training programs on quality matters, and investigation and assessment of the program's effectiveness through the internal auditing program. Personnel from the Product Integrity and Design Assurance Department work with representatives from the other functional departments to assure that activities affecting quality are properly defined, implemented and controlled.

Discussion and resolution of quality matters with the applicant and/or his agent is coordinated with the cognizant project manager and/or

Product Integrity and Design Assurance Project Regional Manager. Product Integrity and Design Assurance personnel provide information in response to customer inquiries and audits of Nuclear Technology Division quality assurance activities.

The Product Integrity and Design Assurance Department, as described by the department charter, has been assigned the responsibility and authority to identify quality problems in quality-related functions of design, procurement, manufacturing, and testing; to take prompt positive action to limit incipient problems; to initiate, recommend or provide solutions to the problems to responsible management; to verify implementation of the necessary corrective action; to initiate action to: stop work or hold the release of equipment until proper disposition of unsatisfactory conditions is made.

The Product Integrity and Design Assurance Department is divided into: Design Assurance Operations, QA Engineering, QA Electrical Equipment, QA Mechanical Equipment and Design Assurance Preheat Steam Generator Programs. The efforts of each group are directed by individual managers.

Design Assurance Operations consists of Design Integration, Design Assurance Systems, Systems Compliance, Project Regional Managers and Records and Files Operations. Design Integration has central responsibility for engineering management and control of Principal Design Documentation, Design Bases Documentation and Change Control and the integration of the design documentation and design changes to ensure proper functional design impacts. It is a central point for the transmittal and receipt of technical information to and from other Water Reactor Divisions; identifies and secures necessary approvals and recommendations from appropriate NTD functional engineering organizations; it reviews and evaluates change controls and other design documentation for proper impact, completeness and consistency with established policies and standards; and it tracks and secures disposition of open items both within NTD and with other Water Reactor Divisions. Design Integration does not affect the responsibilities of the functional engineering organizations, which retain design cognizance in their respective areas of responsibility.

Design Assurance Systems has responsibility for: 1) the maintenance of the Water Reactor Divisions Quality Assurance Plan, WCAP-8370; 2) preparation, promulgation and maintenance of division(s)-level policies/procedures; 3) bid proposal review; 4) nondestructive examination and other quality training; and 5) coordinating audits by U. S. Nuclear Regulatory Commission and the ASME.

Systems Compliance has responsibility for: 1) the investigation and analysis of the Division's procedures for compliance with the criteria of 10CFR50, Appendix B as well as other industry and corporate Quality Standards; 2) internal auditing for compliance to established procedures; and 3) coordinating audits by the applicant and others.

The Project Regional Managers are responsible for customer liaison on matters affecting product quality and for the coordination of Product Integrity and Design Assurance activities with the Water Reactor Divisions Project Manager. These regional managers are responsible for monitoring timely implementation and completion of actions on the part of Water Reactor Divisions and suppliers which are related to the quality of the product for NSSS customers. In addition, these managers provide itinerant Product Integrity and Design Assurance support to the Water Reactor Divisions manufacturing divisions through audit and product surveillance.

Records and Files Operations is responsible for: 1) centralized filing operations; 2) Corporate Records Center interface for the Nuclear Center Complex; 3) support to the Projects Department; 4) records systems; 5) forms control; 6) maintenance and control of quality assurance records and computer files; and 7) microfilming of supplier QA data packages.

QA Engineering is responsible for: 1) providing input to Equipment Specifications, drawings and related procurement documents; 2) evaluating supplier quality assurance programs; and 3) auditing of and transmittal to the customer of supplier quality assurance records data packages.

QA Mechanical Equipment and QA Electrical are responsible for surveillance of suppliers of mechanical and electrical equipment. As part of

their surveillance responsibilities, QA Mechanical Equipment and QA Electrical monitor the activities of suppliers, verify conformance to the procurement quality requirements, audit the supplier's quality systems, and release equipment for shipment. Surveillance personnel are trained and qualified to review supplier tests and inspections, and are qualified to SNT-TC-1A requirements in the review, or performance, of nondestructive examinations. Both resident and itinerant quality assurance representatives are employed in surveillance activities. To provide the most effective coverage of suppliers, managers are assigned responsibility for performing equipment surveillance based upon types of equipment. Responsibility for overseas supplier evaluation and surveillance is normally delegated to other Westinghouse WRD organizations, such as Nuclear Operations Division, however, such delegation is coordinated by QA Mechanical Equipment and QA Electrical. Additionally, QA Electrical is responsible for Quality Engineering for the planning aspects of the systems applied to Electrical Equipment and for providing input to Equipment Specifications, drawings and related procurement documents.

The Design Assurance Preheat Steam Generator Programs Group is responsible for assuring that the WRD Quality Assurance Plan is implemented on all activities associated with the Preheat Steam Generator Task Force effort. This group will draw upon the resources of the entire Product Integrity and Design Assurance Department in order to focus on the preheat steam generator activity.

The Resource and Program Management Department provides the Nuclear Technology Division procurement interface with other Water Reactor Divisions, except for NFD.

17.1.1.2 WRD Manufacturing Facilities

The WRD Manufacturing Divisions (shown in Figures 17-7 and 17-5) design, specify and manufacture nuclear plant equipment within the WRD Manufacturing Divisions' scope of supply, as indicated below, based upon functional design requirements provided by the Nuclear Technology Division.

The WRD Manufacturing Divisions are: Electro-Mechanical Division - manufacturer of rod drive mechanisms, reactor coolant pumps, loop stop, gate and check valves, etc., and Nuclear Component Division (Pensacola Plant - manufacturer of reactor internals, associated equipment and other NSSS components/Tampa Plant - manufacturer of steam generators, pressurizers and other NSSS components).

The Product Assurance organizations at the manufacturing divisions assure that measures are provided and implemented to verify the quality aspects of the design, manufacture, purchase, inspection, test, packaging, shipment and site installation of the products as applicable. Product Assurance functions include: review of drawings, specifications and procedures; source surveillance and audit of suppliers; performance of inspections, examinations and records results; preparation of documentation associated with the release of product and of quality assurance records for retention; and schedule of and participation in internal audits. In addition, each department is responsible for applicable controls as outlined in the quality program manual(s). Manufacturing is responsible for generation and control of manufacturing information, production planning and control, fabrication functions including welding, processes qualification and control, qualification of manufacturing personnel. Design control is described in Section 17.1.3.

The Product Assurance Manager reports to the Division General Manager and is responsible for the implementation of the quality assurance program. He has the authority to enforce full compliance with all quality requirements relative to safety, reliability, operation and maintenance. Product Assurance is vested with the authority and responsibility to stop production until acceptable solutions have been provided. The qualification requirements for the position of Product Assurance Manager are:

1. B. S. Degree in Engineering, or equivalent;

2. Eight (8) years experience in a technical field with a minimum of five (5) years in supervisory capacity;

3. Working knowledge of quality assurance techniques, applicable quality related codes, regulations and standards.

Training relevant to quality assurance activities and pertinent to position is described in Section 17.1.2.

17.1.1.3 Nuclear Operations Division

The Nuclear Operations Division (NOD), as shown in Figure 17-4, integrates the marketing, projects and purchasing functions.

The U. S. Projects Department of NOD, through a designated Project Manager, has the primary responsibility within WRD for coordination of supply of equipment and services to the applicant. The Purchasing and Transportation Group provides the Water Reactor Divisions' procurement interface with suppliers. Purchasing and Transportation administers, as required, the transportation of components from suppliers' facilities to the site. This includes the responsibility for providing consulting service to engineering for the purpose of assuring that material and equipment is protected against the hazards of mechanical damage and weather during shipment. The Manager of Product Integrity and Design Assurance, Nuclear Technology Division, is assigned the responsibility for this Nuclear Operations Division Product Assurance Program.

U. S. Projects also provides technical advisory services during the design and construction phases of the nuclear power plant. The technical advisory services include initiation of reports of nonconformances of equipment during construction as contained in Section 17.1.15.

The Quality Assurance Program for the remaining organizational elements of NOD is contained in separate documents.

17.1.1.4 Nuclear Fuel Division

The Nuclear Fuel Division (NFD) has the responsibility for the design and manufacture of nuclear fuel assemblies and associated reactor core com-

ponents such as control rods, burnable poison assemblies, source assemblies, plugging devices and tubing. This division is also responsible for specifying and procuring appropriate shipping containers. The organization of this division and a description of the Nuclear Fuel Division Quality Assurance Program are contained in Reference 1 (see 17.1.19).

17.1.1.5 Nuclear Services Integration Division

The Nuclear Services Integration Division's (NSID) major responsibilities are concerned with services to operating plants. Nuclear Services Integration Division is the lead Water Reactor Division for all services (including customer interfaces and quality assurance matters) provided to operating plants.

Instrumentation, Technology and Training Center (ITTC), as shown on Figure 17-6, has responsibility for design and program management of control board, integrated protection and control systems, instrumentation and process control systems, and other electrical equipment based on functional requirements provided by the Nuclear Technology Division.

Within ITTC, responsibility for quality assurance activities is assigned to the Product Assurance Group. This includes having lead responsibility to assure that the ITTC Quality Assurance Program is adequately defined, documented and implemented. The Manager of Product Assurance reports directly to the Manager, ITTC and is parallel with the other major groups within the department. Thus, matters pertaining to quality assurance can be related directly from the Product Assurance Manager to the Department General Manager, independent of other functional activities. The qualification requirements for the Product Assurance Manager are the same as the NTD Product Integrity and Design Assurance Manager as noted in Section 17.1.1.1. NTD Design Assurance Operations and NTD QA Electrical provide support to ITTC Product Assurance reporting on a matrix basis to ITTC Product Assurance.

The NSID quality assurance program for operating plant services is contained in a separate document(s).

17.1.1.6 Functional Responsibility

The functional responsibilities of designing and fabricating fuel and equipment and the integrated quality assurance responsibilities for both safety and non-safety equipment are shown in Table 3.2-1, Chapter 3, (which is contained in the Safety Analysis Report). The identification of safety-related equipment is also covered in this table.