



March 22, 1994
ML-94-008

Docket No. 70-36
License No. SNM-33

Mr. Robert C. Pierson, Chief
Licensing Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Materials Safety and Safeguards
U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Subject: **Organizational Amendment**

Reference: Letter, J. F. Conant (CE) to R. C. Pierson (NRC), ML-94-002, dated
January 10, 1994

Dear Mr. Pierson:

The Reference letter apprised you of the recent retirement of our Hematite Plant Manager. In light of this occurrence and our transition to focused factory management, a license amendment request is hereby submitted for changes to our organization.

Enclosure I presents a synopsis of the changes proposed and provides an explanation of our revised structure. Enclosure II gives a list of affected pages in our license application, and Enclosure III provides the appropriate application change pages.

The Hematite plant contact person for NRC affairs is Mr. Robert W. Sharkey, Manager, Regulatory Compliance. It is requested that all facility correspondence be directed to Mr. Sharkey at our Hematite, Missouri, facility. It is also requested that you continue sending copies of facility correspondence to Mr. John F. Conant, Manager, Nuclear Materials Licensing, at our Windsor, CT offices as well.

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ABB Combustion Engineering Nuclear Power

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Combustion Engineering, Inc.

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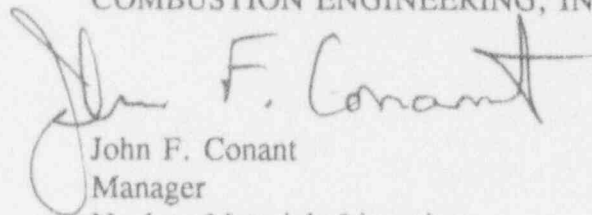
Mr. Robert C. Pierson
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If there are any questions or comments concerning this matter, please do not hesitate to contact me at 203-285-5002.

Very truly yours,

COMBUSTION ENGINEERING, INC.

A handwritten signature in black ink, appearing to read "John F. Conant". The signature is written in a cursive style with a large initial "J" and a long horizontal stroke at the end.

John F. Conant
Manager
Nuclear Materials Licensing

JFC:bf

xc: S. Soong (NRC)
G. France III (NRC - Region III)

Enclosure I to
ML-94-008

COMBUSTION ENGINEERING, INC.
HEMATITE NUCLEAR FUEL MANUFACTURING FACILITY
ORGANIZATION AMENDMENT
EXPLANATION OF CHANGES

March 1994

COMBUSTION ENGINEERING, INC.
HEMATITE NUCLEAR FUEL MANUFACTURING FACILITY
ORGANIZATION AMENDMENT

EXPLANATION OF CHANGES

A. OVERVIEW OF CHANGES

The Hematite facility has been organized under the traditional plant manager format. In a license amendment submitted and approved last year, focused factory managers were introduced within that structure, and were charged with the responsibility to assure safe operation of the facility. As part of our transition to focused factory management, and with the recent retirement of the plant manager, CE intends to delete the plant manager position in favor of focused factory managers. We believe this change, besides enhancing our operations, will simultaneously enhance the effectiveness of our safety program for the following reasons:

1. Although Consolidation has expanded the activities and number of personnel on site, the addition of the focused factory managers has also increased management control and cognizance over both safety and operations.
2. By spreading responsibility for the facility to a "horizontal" structure, as with the focused factory management method, responsibility for safety and operations is pressed deeper into the organization, creating greater "ownership."
3. The Manager of Regulatory Compliance remains charged with monitoring and oversight responsibility for safety of the entire facility. This individual also provides the official point of contact for NRC, thus maintaining a strong "focus" on regulatory matters.
4. Regulatory Compliance and the focused factory managers continue to have shutdown authority for any aspect of operations not deemed to be safe or in compliance with applicable regulations.

Effective immediately all NRC facility correspondence should be directed to:

Mr. Robert W. Sharkey
Manager, Regulatory Compliance
Combustion Engineering, Inc.
PO Box 107
Hematite, MO 63047

with copies to:

Mr. John F. Conant
Manager, Nuclear Materials Licensing
Combustion Engineering, Inc.
1000 Prospect Hill Road
Windsor, CT 06095-0500

B. DESCRIPTION OF CHANGES

Throughout Parts I and II, the former reference to the President, Nuclear Fuel, has been changed to the Vice President, Fuel Operations, in light of corporate organizational changes.

In Part I, Section 2.1, 2.1.1, and elsewhere, the former reference to the Plant Manager has been replaced with the Focused Factory Managers as discussed above. In addition, the new position of Manager, Production Support, is described in Section 2.1.2. This position replaces some of the functions of the former Manager, Administration, and consolidates other functions.

In Section 2.3, the findings and recommendations of the safety committee are reported to the appropriate Focused Factory Manager and the Manager, Regulatory Compliance in lieu of the former Plant Manager.

Section 2.4, Approval Authority for Personnel Selection, has been revised to require that personnel for safety-related staff positions be subject to higher level management approval. In light of the current horizontal organizational structure, multiple levels of management approval are deemed not to be necessary for the safe operation of the facility.

Part I Table 2-1 has been revised to delete the Plant Manager and add requirements for the new position of Manager, Production Support. The education requirements for the Chairman of the safety committee have been revised to allow a Bachelors degree in Manufacturing to fulfill the requirements.

In Part II, Section 3.0 has been revised to clarify that equivalent credentials may satisfy specific education and training requirements; this allowance seems reasonable.

As discussed above, the new position of Manager, Production Support replaces some of the functions of the former Manager, Administration, and in that light the former description of that position has been eliminated (former Section 3.1.1; succeeding sections have been renumbered).

As a result of consolidating operations in the focused factories, the former responsibilities of the Supervisor, Materials, have been reassigned to various personnel in the focused factories. The position of Supervisor, Materials has been eliminated; former Section 3.1.4 has been deleted. Independence is maintained by the separate Coordinator of Nuclear Materials Accountability.

In Section 3.2, the resume of the former Manager, Assembly Operations, has been replaced with that of the new manager, Gilles Page. The resume of David Stokes, Manager, Production Support, has been added. The resumes of James Rode, former Plant Manager, and Ann Keklack, former Health Physicist, have been deleted. The position of Health Physicist remains unfilled at this time; those responsibilities are being performed by existing qualified plant staff in the interim.

Lastly, the organization chart of Figure II.3-1 has been revised as previously discussed.

Enclosure II to
ML-94-008

COMBUSTION ENGINEERING, INC.
HEMATITE NUCLEAR FUEL MANUFACTURING FACILITY
ORGANIZATION AMENDMENT
LIST OF AFFECTED PAGES

March 1994

**COMBUSTION ENGINEERING, INC.
HEMATITE NUCLEAR FUEL MANUFACTURING FACILITY
ORGANIZATION AMENDMENT**

LIST OF AFFECTED PAGES

Combustion Engineering, Inc. is requesting changes to its license application. The following list identifies the changed application pages. The affected pages are provided as change pages in Enclosure III.

The license application pages affected are as follows:

<u>Delete Page</u>			<u>Add Page</u>		
<u>Page</u> <u>No.</u>	<u>Rev.</u>	<u>Date</u>	<u>Page</u> <u>No.</u>	<u>Rev.</u>	<u>Date</u>
<u>PART I</u>			<u>PART I</u>		
<u>Chapter 2</u>			<u>Chapter 2</u>		
I.2-1	2	12/16/93	I.2-1	3	3/22/94
I.2-2	2	7/19/93	I.2-2	3	3/22/94
I.2-5	3	7/19/93	I.2-5	4	3/22/94
I.2-6	3	10/28/93	I.2-6	4	3/22/94
I.2-9	3	10/28/93	I.2-9	4	3/22/94
I.2-10	3	7/19/93	I.2-10	4	3/22/94
I.2-12	1	10/28/93	I.2-12	2	3/22/94
<u>PART II</u>			<u>PART II</u>		
<u>Chapter 3</u>			<u>Chapter 3</u>		
II.3-1	2	10/28/93	II.3-1	3	3/22/94
II.3-2	2	7/19/93	II.3-2	3	3/22/94
II.3-3	2	7/19/93	II.3-3	3	3/22/94
II.3-4	2	10/28/93	II.3-4	3	3/22/94

PART II

Chapter 3 - continued

II.3-5	2	7/19/93
II.3-6	2	7/19/93
II.3-7	2	7/19/93
II.3-14	3	7/19/93
II.3-15	2	7/19/93
II.3-16	2	7/19/93
-	-	-
-	-	-
-	-	-
-	-	-
II.3-24	0	7/19/93
II.3-25	0	7/19/93
II.3-26	0	7/19/93
II.3-29	0	11/28/93

PART II

Chapter 3 - continued

II.3-5	3	3/22/94
II.3-6	3	3/22/94
II.3-7	3	3/22/94
II.3-14	4	3/22/94
II.3-15	3	3/22/94
II.3-16	3	3/22/94
II.3-16a	0	3/22/94
II.3-16b	0	3/22/94
II.3-16c	0	3/22/94
II.3-16d	0	3/22/94
II.3-24	1	3/22/94
II.3-25	1	3/22/94
II.3-26	1	3/22/94
II.3-29	1	3/22/94

Enclosure III to
ML-94-008

COMBUSTION ENGINEERING, INC.
HEMATITE NUCLEAR FUEL MANUFACTURING FACILITY
ORGANIZATION AMENDMENT

AFFECTED PAGES

March 1994

2.0 ORGANIZATION AND ADMINISTRATION

2.1 Organizational Responsibilities and Authority

The Vice President, Fuel Operations has complete responsibility for ensuring that corporate operations related to nuclear fuel manufacturing are conducted safely and in compliance with applicable regulations. The Vice President has delegated the responsibility for nuclear fuel manufacturing to the Focused Factory Managers.

2.1.1 Focused Factory Managers

The Focused Factory Managers, report to the Vice President, Fuel Operations. There are three Focused Factories, whose Managers are responsible for Chemical Operations, Ceramic Operations and Assembly Operations. These Focused Factory Managers direct production operations. Each Manager directs and has the overall responsibility for safe operation of the Hematite facility, especially in the factory under his cognizance. This includes criticality safety, radiological and industrial safety, environmental protection, production, accountability, security, transportation, training, materials handling and storage, process and equipment engineering and maintenance.

2.1.2 Manager, Production Support

The Manager, Production Support reports to the Vice President, Fuel Operations. He provides production support to the Focused Factory Managers. Responsibilities may include, but are not limited to, administration of security, shipping and receiving, packaging and shipment of SNM products and waste, facilities engineering and maintenance, and laboratory services. He has the responsibility to assure safe operation of the Hematite facility, especially in the plant areas under his cognizance. This includes criticality safety, radiological and industrial safety, environmental protection, production, accountability, security, transportation, training, materials handling and storage, process and equipment engineering and maintenance.

2.1.3 Manager, Regulatory Compliance

The Manager, Regulatory Compliance reports to the Vice President, Fuel Operations. He manages radiological protection, industrial safety, SNM accountability, criticality safety, licensing, emergency planning, and environmental protection. His activities include review and approval of procedures for control, sampling, measurement and physical inventory of SNM, auditing of plant operations. He reviews results from personnel and environmental monitoring and facility activities to ensure compliance with the requirements of License No. SNM-33. To enforce compliance, he has authority to halt any operation at the Hematite facility, and the operation shall not restart until approved by Regulatory Compliance, a Focused Factory Manager, or a duly authorized alternate.

2.1.4 (Deleted)

2.3 Hematite Plant Safety Committee (Continued)

The review of findings and recommendations of corrective action shall be reported to the appropriate Focused Factory Manager and the Manager, Regulatory Compliance for action.

The Committee Chairman determines which committee members, as a minimum, shall attend each quarterly meeting, according to the topics to be considered. The Committee submits a quarterly meeting report to the Hematite manager level personnel and the Vice President, Fuel Operations. The Committee Chairman appoints the committee members to represent, as a minimum, engineering, production, health physics, and criticality safety. He or she may also approve alternate(s) for the members.

Minimum education and experience requirements for the Chairman are in Table I.2-1. The Committee is comprised of senior personnel from the technical staff of Combustion Engineering's organization who have at least five (5) years experience in the nuclear industry. The Committee Chairman may invite participation by others from within Hematite or from the staff at Windsor.

2.4 Approval Authority for Personnel Selection

Personnel for safety-related staff positions are approved by the next level of management or higher.

2.5 Training

Hematite staff conduct or supervise the indoctrination of new employees in the safety aspects of the facility. The indoctrination topics shall include nuclear criticality, safety, fundamentals of radiation and radioactivity, contamination control, ALARA practices and emergency procedures. After test results demonstrate that a new

2.5 Training (Continued)

employee has sufficient knowledge in the above topics, the new employee begins on-the-job training under direct line supervision and/or experienced personnel. The Supervisor monitors performance until it is adequate to permit work without close supervision.

The training and personnel safety program continues with on-the-job training supplemented by regularly scheduled meetings conducted by line supervision and specialists in the subjects covered. Topics include personnel protective equipment, accident prevention, and other safety topics. Production Supervisors receive formal training in radiation and criticality control. Testing determines when they have sufficient knowledge to enable them to carry out their training functions. Operating personnel receive a re-training course in criticality control and radiation safety on a biennial basis. The effectiveness of retraining is determined by testing. Formal training shall be documented. The health physics staff will receive professional related training at least biennially.

2.6 Operating Procedures

Operations which affect licensed material shall be conducted in accordance with approved written procedures. Operating Procedures, called Operation Sheets, are issued and controlled under the direction of Quality Coordinators. They provide the detailed instructions for equipment operation and material handling and the limits and controls required by the License. Operation Sheets are the basic control document; before issuance or revision they require signed approval by the appropriate Focused Factory Manager and the Manager, Regulatory Compliance. In the Manager's absence, another individual meeting the Manager's minimum education and experience requirements may provide approval. Health Physics activities will be conducted in accordance with approved written procedures; these

2.7 Audits and Inspections

Audits and inspections shall be performed to determine if plant operations are conducted in accordance with applicable license conditions, C-E policies, and written procedures. Audits shall apply to safety-related and environmental programs. Qualified personnel having no direct responsibility for the plant operation being audited shall be used to ensure unbiased and competent audits.

Daily checks for safety related problems are made by Health Physics technicians, who observe, note and make general observations in addition to their other duties. Problems are normally corrected on the spot by the Production Supervisor. More significant problems are listed on the daily exception report distributed to the cognizant Focused Factory Manager and manager level staff. The appropriate Focused Factory Manager is responsible for corrective action.

Planned and documented quarterly inspections cover criticality control and radiation safety. The inspection of criticality control shall be performed by an individual meeting at least the education and experience requirements of a Nuclear Criticality Specialist and at least one of the quarterly inspections regarding criticality control will be by an individual who is not the Manager of Regulatory Compliance. The inspection of radiation safety will be conducted by an individual meeting at least the education and experience requirements of the position of Health Physicist. Items requiring corrective action are documented in a report distributed to the Focused Factory Managers and other manager level staff. The appropriate Focused Factory Manager is responsible for corrective action, except where another manager is specifically designated. Follow-up actions taken by the appropriate Focused Factory Manager, or responsible manager, shall be documented. Documentation shall be maintained for at least the period stated in Section 2.9.

2.7 Audits and Inspections (Continued)

Annual audits are conducted in which the results of previous inspections or audits are reviewed, as an evaluation of the effectiveness of the program. These audits may also involve a detailed review of non-safety documents such as operation procedures, shop travelers, etc., and are documented by a formal report to the Vice President, Fuel Operations. Annual audits are performed by a team appointed by the Vice President, Fuel Operations. Personnel on the team will not have direct responsibility for the function and areas being audited. The team shall include, as a minimum, a Nuclear Criticality Specialist and a radiation specialist who shall audit criticality and radiation safety, respectively. The radiation specialist who conducts the annual audit shall have as a minimum a Bachelor's degree in Science or Engineering with two years experience in operating health physics for uranium bioassay techniques, internal exposure controls and radiation measurement techniques. The annual audit will review ALARA requirements in conformance with Regulatory Guide 8.10, as applicable. The appropriate manager(s) shall be responsible for follow-up of recommendations made by the audit team.

2.8 Investigations and Reporting

Events specified by applicable regulations or license conditions shall be investigated and reported to NRC. The Manager of Regulatory Compliance shall be responsible for conducting the investigation and documentation of reportable events.

Non-reportable occurrences shall be investigated and documented as appropriate. Such reports shall be available for NRC inspection.

TABLE 2-1

MINIMUM EDUCATION AND EXPERIENCE REQUIREMENTS FOR KEY PERSONNEL

<u>POSITION</u>			
<u>Described In Section No.</u>	<u>Title</u>	<u>Education</u>	<u>Experience (Years/Field)</u>
I.2.1.1	Focused Factory Managers	Bachelors, Science, Engineering or Manufacturing	5/Nuclear manufacturing industry
I.2.1.2	Manager, Production Support	Bachelors, Science, Engineering or Manufacturing	2/Facilities Management
I.2.1.3	Manager, Regulatory Compliance	Bachelors, Science or Engineering	4/Health Physics with 2/Operational health physics with uranium bioassay techniques, internal exposure control, and radiation measurement techniques
I.2.1.4	Nuclear Criticality Specialist	Bachelors, Science or Engineering	2/Nuclear criticality evaluations, including 6 months applicable to fuel manufacturing
I.2.1.5	Supervisor, Health Physics	High School Diploma	5 Total/Nuclear industry, with 3/Health Physics Technician
I.2.1.6	Health Physicist	Bachelors, Science or Engineering	2/Operational Health Physics applicable to fuel manufacturing
I.2.1.7	Health Physics Technician	High School Diploma or GED Equivalent	6 months/Training and experience in radiation protection activities
I.2.3	Chairman, Plant Safety Committee	Bachelors, Science Engineering, or Manufacturing	5/Nuclear manufacturing industry

License No. SNM-33, Docket 70-36

Revision: 2

Date: 3/22/94
Page: 1.2-12

3.0 ORGANIZATION AND PERSONNEL

Section I.2.1 describes the key positions important to safety and the line of authority to top management. Section I.2.2 lists the education and training requirements for those positions. For all positions and functions, it is assumed that education and training requirements may be met specifically or with equivalent credentials. In general, higher level management may assume the responsibilities and authorities of key personnel in their absence. Either the individual key person or higher level management may assign one or more other suitable individual(s) to temporarily assume the responsibilities and authorities of key personnel who are absent.

The following Section II.3.1 describes additional positions of the organization. Section II.3.2 gives the resumes for personnel currently holding the key positions described in Part I.

3.1 Organizational Responsibilities

Figure II.3-1 is the Hematite plant organization chart. The following sections describe some of the supervisory and higher level positions shown in Figure II.3-1 that are not included in Section I.2.1.

3.1.1 Quality Coordinators

The Quality Coordinators report administratively to their respective Focused Factory Managers, and also report functionally to the Director, Quality Systems to maintain independent management oversight. The Quality Coordinators manage the measurement activities which verify that the product conforms to specification. These activities may include development of the Operation Sheets that are the procedures for acquisition of product data, approval of laboratory measurement methods, approval of statistical methodology for data evaluation and establishment of the system for control and distribution of data documentation. The Quality Coordinators maintain separation between their measurement activities and the production activities that they monitor.

3.1.2 Coordinator of Nuclear Materials Accountability

The Coordinator of Nuclear Materials Accountability reports to the Manager of Regulatory Compliance. He maintains the SNM accounting records, prepares NRC required reports on material balance, transfer and inventory, periodically verifies current knowledge of the presence of SNM and computes Inventory Differences.

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3.1.3 Manager, Facilities

The Manager, Facilities reports to the Manager, Production Support. The duties of this function include facilities engineering and maintenance for the entire plant, including such support for the focused factories as requested.

3.1.4 Supervisor, Laboratory

The Laboratory Supervisor reports to the Manager, Production Support. He/she supervises and trains the laboratory technicians, recommends sampling procedures, establishes laboratory methods and reviews and approves all chemical measurements on SNM. He/she also selects subcontractors and qualifies and coordinates their measurement services.

3.1.5 Supervisor, Maintenance

The Supervisor, Maintenance reports to the Manager, Facilities. He supervises technicians in the maintenance activities related to the facility and the production equipment within the constraints of applicable radiation and industrial safety practice.

3.2 Resumés of Personnel

Resumés of key personnel important to safety are provided in this section for the following personnel:

S. G. Borell - Manager, Chemical Operations

G. F. Palmer - Manager, Ceramic Operations

G. J. Page - Manager, Assembly Operations

D. Stokes - Manager, Production Support

R. W. Sharkey - Manager, Regulatory Compliance

R. J. Klotz - Nuclear Criticality Specialist
(located in Windsor)

M. R. Eastburn - Nuclear Criticality Specialist

open - Health Physicist

E. W. Criddle - Supervisor, Health Physics

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GILLES J. PAGE, P.E. - ASSEMBLY OPERATIONS MANAGER

EDUCATION:

M.S., Mechanical Engineering, Rensselaer Polytechnic Institute, 1985
B.S., Mechanical Engineering, University of Hartford, 1982
A.S., Mechanical Engineering, Waterbury State Technical College, 1975

EXPERIENCE:

COMBUSTION ENGINEERING, INC.

Manager, Assembly Operations - Hematite 1994 to Present

Responsible for all nuclear fuel manufacturing activities in the Assembly Operations Focused Factory. Manages Process Engineering, Planning, Budget, and Quality Control. Responsible for safe operation of the Assembly Operations facility, including criticality safety, radiological and industrial safety, environmental protection, production, accountability, security, transportation, training, materials handling and storage, process and equipment engineering and maintenance.

Manager, Grid and Cage Factory - Windsor 1993 - 1994

Responsible for all manufacturing activities within the Grid and Cage Factory.

Manager, Component Factory - Windsor 1992 - 1993

Responsible for all manufacturing activities within the Component Factory.

Principal Engineer 1985 - 1992

Responsible for process equipment, projects, selection, design and installation of new equipment within the Nuclear Fuel Facility.

GILLES J. PAGE, P.E. (continued)

UNIROYAL, INC.

Development Engineer, Corporate Research

1982 - 1985

Developed a radically new and improved puncture sealant process for factory introduction in 1986 which resulted in substantial profits - patent issued. Developed an automatic lubrication spray system for radial tire building which resulted in the ability to use bias tire equipment to produce radial tires. This system is now in operation in tire plants. Co-inventor of new non-pneumatic tire with projected earnings in multi-million dollar range - patent issued.

Research Technician, Corporate Research

1975 - 1982

Responsible for operation of tire test facility. Duties included failure analysis, evaluation of material, coordination of new equipment installation and design of test fixtures.

OTHER QUALIFICATIONS:

Registered Professional Engineer, State of Connecticut, No. 15868

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DAVID W. STOKES - MANAGER, PRODUCTION SUPPORT

EDUCATION:

B. S., Metallurgical Engineering, Grove City College
Graduate MBA Studies, Plymouth State College (Division of University of
New Hampshire)

ASQC Certified Quality Engineer; No. E-6808

Seminars and courses in statistics, Taguchi Methods and TQM

EXPERIENCE:

COMBUSTION ENGINEERING, INC.

Manager, Production Support - Hematite 1994 - Present

Responsible for administration of security, shipping and receiving, packaging and shipment of SNM products and waste, facilities engineering and maintenance, and laboratory services. He has the responsibility and authority to assure safe operation of the Hematite facility, including criticality safety, radiological and industrial safety, environmental protection, production, accountability, security, transportation, training, materials handling and storage, process and equipment engineering and maintenance.

Manager, Component Manufacturing Operations - Windsor 1993 - 1994

Responsible for all aspects of operation of the nuclear fuel manufacturing focused factory for Components.

DAVID W. STOKES (continued)

Manager, Process Improvement

1992 - 1993

Responsible for the process improvement operations of the nuclear fuel manufacturing facilities.

TEXTRON DEFENSE SYSTEMS

Manager, Quality Engineering Services

1987 to 1992

Product Assurance Program Manager

1986 to 1987

Manufacturer of electronic printed wiring, flex print component assemblies and cables, for Government Defense Programs in a MIL-Q-9858A environment. Managed Quality Engineering Services group. Applied Statistical Process Control (SPC), Computer Aided Design (CAD) and operator inspection techniques to improve quality and engineering efficiency. Taught Total Quality Management (TQM) Awareness, SPC and Analyzing Work Processes classes to division personnel. Lead team to assess the impact of MIL-STD-2000 on business, and then to implement this standard.

QUINLAN-STOKES, INC.

President

1985 to 1986

Business brokerage firm involved in mergers, acquisitions for individuals, investment groups and other businesses. Successfully started-up the operation and then developed and implemented marketing programs. Honed cost effective operations and efficiency skills.

DAVID W. STOKES (continued)

GENERAL BATTERY CORP.

Senior Quality Engineer (Corporate)

1982 to 1985

Leading manufacturer of lead-acid batteries for Consumer and Department of Defense markets. Served on corporate Quality staff. Successfully negotiated rewriting of DOD battery purchase specifications for M-1 and M-60 tanks to align them with current industry standards and practices. Coordinated new product qualification testing prior to market introduction and lead prototype project for production qualification of new plastic cased military battery.

GARDNER-DENVER COOPER INDUSTRIES

Manager, Quality Control

1980-1982

Senior Quality Engineer

1980

Commercial manufacturer of precision machined, hydraulic and pneumatic drill components and crawler rigs for the mining and construction industry. Managed plant quality assurance activities. Applied TQM basics and participated in development and implementation of a "Total Quality Program" for the division. Implemented formal quality planning processes including design reviews and value analysis of new products. Implemented process controls and effective procedures for capturing and reporting quality costs and implemented corrective action system.

DAVID W. STOKES (continued)

ALLIS-CHALMERS, HYDROTURBINE DIVISION

Chief Inspector

1978 to 1980

Quality Engineer

1975 to 1978

Manufacturer of large fabricated and machined components for both commercial and government hydroelectric generation projects. Learned the basics of TQM through participation in the development of a "Total Quality Assurance" program to meet Allis-Chalmers certification requirements. Managed the division's inspection function, in a union environment. Successfully obtained sealed source license from the NRC and proceeded to cut NDT cost of heavy weldments.

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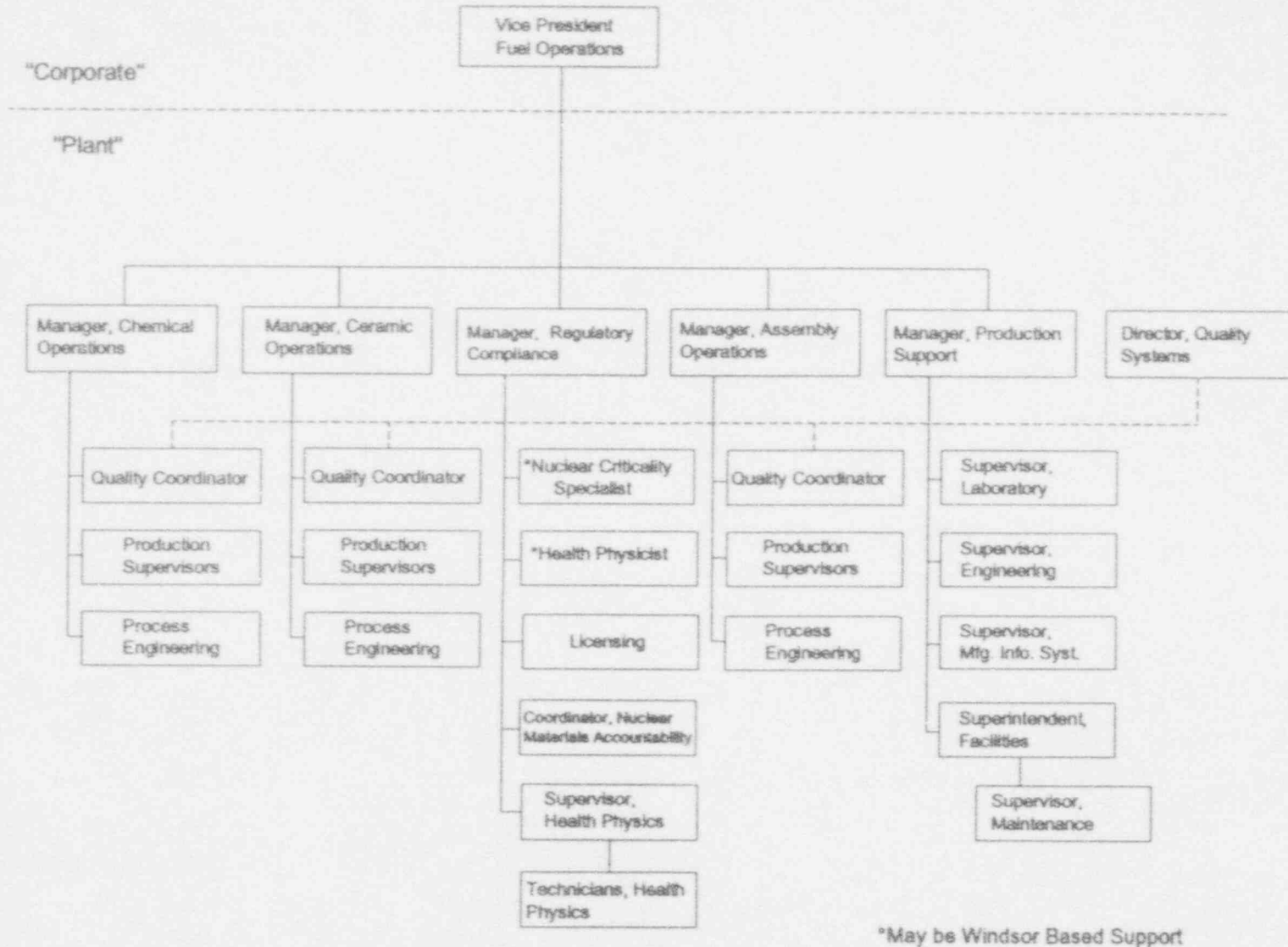


Figure II.3-1

Hematite Plant Organization Chart