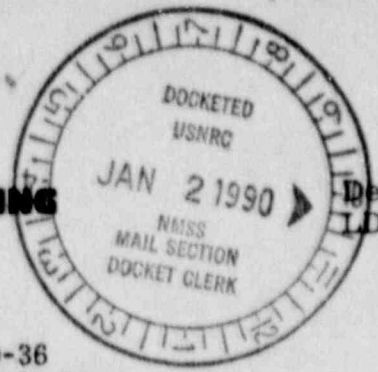


**COMBUSTION ENGINEERING**



December 20, 1989  
LD-89-142



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

Mr. Leland C. Rouse, Chief  
Fuel Cycle Safety Branch  
Division of Industrial and  
Medical Nuclear Safety  
Office of Nuclear Materials  
Safety and Safeguards  
U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D. C. 20555

Subject: Revision to License Amendment Request for Hematite  
Organizational Changes

Reference: (A) Letter, LD-89-129, A. E. Scherer (C-E) to  
D. A. McCaughey (NRC), dated November 22, 1989

(B) Letter, LD-89-126, A. E. Scherer (C-E) to  
L. C. Rouse (NRC), dated November 14, 1989

Dear Mr. Rouse:

We recently advised the Nuclear Regulatory Commission, Reference (A), that our Vice President, Nuclear Fuel elected to take early retirement and that Dr. S. T. Brewer appointed Mr. C. R. Waterman to be acting Vice President, Nuclear Fuel. As an interim step to re-organizing the Nuclear Fuel Department, we have elected to eliminate the position of Vice-President and General Manager, previously held by Mr. Waterman. The Plant Manager of Hematite facility will report to Mr. Waterman in his capacity as acting Vice President, Nuclear Fuel.

This letter, therefore, submits the minimum necessary revisions to the Hematite Organizational Amendment Request, Reference (B), and asks that you update that Request with the enclosed pages prior to review and approval.

Enclosure I provides a tabulation of the pages from the Reference (B) <sup>15</sup>submittal that are affected by this revision. Enclosure II supplies the revised amendment request pages. Six (6) copies of Enclosures I and II are included for your use.

DF#3  
26227

**Power Systems**  
Combustion Engineering, Inc.

1000 Prospect Hill Road  
Post Office Box 500  
Windsor, Connecticut 06095-0500

(203) 688-1911  
Telex: 99297

9001160295 891220  
PDR ADOCK 07000036  
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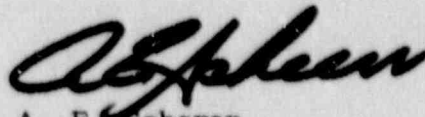
Mr. L. C. Rouse  
December 20, 1989

LD-89-142  
Page 2

If I can be of any assistance in this matter, please do not hesitate to call me or Mr. J. F. Conant of my staff at (203) 285-5002.

Very truly yours,

COMBUSTION ENGINEERING, INC.



A. E. Scherer  
Director  
Nuclear Licensing

AES:jeb

Enclosures: As Stated

cc: Mr. G. M. France III (NRC-Region III)

**COMBUSTION ENGINEERING, INC.**

**HEMATITE NUCLEAR FUEL MANUFACTURING FACILITY**

**REVISION TO REQUEST FOR LICENSE AMENDMENT**

**LIST OF AFFECTED PAGES**

**DECEMBER 20, 1989**

**HEMATITE NUCLEAR FUEL MANUFACTURING FACILITY**  
**REVISION TO REQUEST FOR LICENSE AMENDMENT**

The following lists the pages of the Hematite Organizational Amendment Request submitted previously (Letter LD-89-126, dated November 14, 1989) that are affected by this revision.

<u>Deleted Page</u>			<u>Added Page</u>		
<u>Page No.</u>	<u>Date</u>	<u>Rev.</u>	<u>Page No.</u>	<u>Date</u>	<u>Rev.</u>
1.2-1	11/14/89	1	1.2-1	12/20/89	1
1.2-2	11/14/89	1	1.2-2	12/20/89	1
1.2-3	11/14/89	3	1.2-2	12/20/89	3
1.2-4	11/14/89	1	1.2-2	12/20/89	1
1.2-5	11/14/89	2	1.2-5	12/20/89	2
1.2-10	11/14/89	2	1.2-10	12/20/89	2
1.2-12	11/14/89	0	1.2-12	12/20/89	0
11.3-3	11/14/89	1	11.3-3	12/20/89	1
11.3-5	11/14/89	1	11.3-5	12/20/89	1
11.3-25	11/14/89	0	11.3-25	12/20/89	0

Enclosure II to  
LD-89-142

**COMBUSTION ENGINEERING, INC.**

**HEMATITE NUCLEAR FUEL MANUFACTURING FACILITY**

**REVISION TO REQUEST FOR LICENSE AMENDMENT**

**PROPOSED LICENSE APPLICATION PAGES**

**DECEMBER 20, 1989**

2.0 ORGANIZATION AND ADMINISTRATION

2.1 Organizational Responsibilities and Authority

The President, Nuclear Power Businesses has the ultimate responsibility for ensuring that corporate operations related to the Nuclear Power Businesses Division are conducted safely and in compliance with applicable regulations. The President has delegated the responsibility for nuclear fuel manufacturing and product development activities to the Vice President, Nuclear Fuel.

2.1.1 Plant Manager, Hematite

The Plant Manager, Hematite reports to the Vice President, Nuclear Fuel. He directs the total operation of the Hematite facility including the production, accountability, security, criticality safety, radiological and industrial safety, environmental protection, transportation, training, materials handling and storage, licensing, process and equipment engineering and maintenance. He fulfills these functions by delegation to a staff at Hematite that reports to the Plant Manager. He may also request support from the Windsor, CT staff to provide functions that may include criticality analysis, production methods, nuclear licensing and others as needed.

2.1.2 Manager, Nuclear Licensing, Safety and Accountability

The Manager, Nuclear Licensing, Safety and Accountability reports to the Plant Manager. He manages radiological protection and 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

2.1.2 Manager, Nuclear Licensing, Safety and Accountability (Continued)

plant operations and evaluation of results from personnel and environmental monitoring. He compares quantitative measurements and other observations of facility activities 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 the Plant Manager or a duly authorized alternate.

2.1.3 Superintendent, Production

The Superintendent of Production reports to the Plant Manager. The Superintendent directs production operations in accordance with the content of Operation Sheets and Traveler documents. The Superintendent's activities may include review and approval of Operation Sheets and Travelers, scheduling of production Shift Supervisors and of the activities of the Maintenance Supervisor, recommending improvements to equipment, processes and procedures, training and qualification of production operators through their Shift Supervisors and periodically directing the cleanout of the production equipment in conjunction with the physical SNM inventory.

2.1.4 Manager, Engineering

The Manager, Engineering reports to the Plant Manager. He manages the engineering of new equipment and of modifications to existing equipment. With support from his staff, his activities may include recommendation, development and qualification of manufacturing processes, specification of process control methods, design, procurement and installation of processing equipment, preparation, review and/or approval of Travelers, Operation Sheets and Data Logs,

2.1.4 Manager, Engineering (Continued)

and providing assistance in developing procedures for material control and inventory and in developing methods and equipment for sampling.

2.1.5 Nuclear Criticality Specialist

The Nuclear Criticality Specialist is located at Windsor, CT. He reports functionally for criticality evaluations to the Plant Manager at Hematite. The Nuclear Criticality Specialist verifies that equipment, processes and procedures satisfy the criticality criteria in Section 4 of Part I by performing the review described in Section 2.6 of Part I. Alternatively, for criticality analyses that require elaborate computational techniques, he may supervise the analysis and review at Windsor. He may also perform the annual audit at Hematite required by Section 2.7.

2.1.6 Supervisor, Health Physics

The supervisor of Health Physics reports to the Manager of Nuclear Licensing, Safety and Accountability. He supervises the health physics technicians in the radiological surveillance of activities that involve radioactive materials, in personnel radiation monitoring and in the collection and measurements of environmental samples. He may initiate, for approval by his manager, Travelers and Operation Sheets for non-routine activities involving radioactive materials and may suspend unsafe operations.



### 2.1.7 Senior Health Physics Technicians

The Senior Health Physics Technicians report to the Supervisor, Health Physics. The Technicians are responsible for the day-to-day monitoring of operations. Monitoring is accomplished through the collection of data which allows the effectiveness of radiological, criticality and industrial safety, environmental protection and emergency planning programs to be assessed. Technicians also monitor the proper implementation of radiation work permits (called Special Evaluation Travelers).

### 2.2 Personnel Education and Experience Requirements

Table I.2-1 lists the minimum education and experience requirements for the positions described in Section I.2.1.

### 2.3 Hematite Plant Safety Committee

The Hematite Plant Safety Committee meets at least once each calendar quarter to review plant operations, to compare them with the safety requirements of Part I and the License Conditions and to consider other aspects of safety the Committee believes appropriate. The Committee chairman or Plant Manager 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 to the Plant Manager at Hematite. The Plant Manager appoints the committee members to represent, as a minimum, engineering, production, health physics, and criticality safety. He also approves alternates for the members. Each member shall have at

2.3 Hematite Plant Safety Committee (Continued)

least five (5) years experience in the nuclear industry. The health physics and criticality safety member(s) shall have, as a minimum, the education and experience requirements of the NLS&A Manager and the Nuclear Criticality Specialist, respectively. The Committee Chairman or Plant Manager may invite participation by others from within Hematite or from the staff at Windsor.

2.4 Approval Authority for Personnel Selection

Two higher levels of management shall approve personnel for safety-related staff positions.

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

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, Nuclear Fuel. Annual audits are performed by a team appointed by the Vice President, Nuclear Fuel. The team shall include, as a minimum, a Nuclear Criticality Specialist and a radiation specialist who shall audit criticality and radiation safety. The annual audit will review ALARA requirements in conformance with Regulatory Guide 8.10, as applicable. The NLS&A Manager 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 NLS&A Manager or his designated representative shall be responsible for conducting the investigation and documentation of reportable events. Non-reportable occurrences shall be investigated and documented as appropriate and these reports shall be available for NRC inspection.

2.9 Records

Retention of records required to be maintained by the regulations, and by the conditions of this license, shall be the responsibility of the cognizant manager. Records of tests, measurements, and surveys identified as requiring preservation until the NRC authorizes disposition shall be retained indefinitely. Records of

TABLE I.2-1

MINIMUM EDUCATION AND EXPERIENCE REQUIREMENTS FOR KEY PERSONNEL

Described In Section No.	Position		Experience (Years/Field)
	Title	Education	
I.2.1.1	Plant Manager	Bachelors, Science or Engineering	5/Nuclear manufacturing
I.2.1.2	Manager, NLS&A	Bachelors, Science or Engineering	5/Health Physics, with 2/Operational health physics with uranium bioassay techniques, internal exposure control, and radiation measurement techniques
I.2.1.3	Superintendent, Production	High School Diploma	10 Total/Nuclear industry, with 5/nuclear fuel manufacturing including 3/Production coordination
I.2.1.4	Manager, Engineering	Bachelors, Engineering	5/Engineering design of process, systems or facilities
I.2.1.5	Nuclear Criticality Specialist	Bachelors, Science or Engineering	2/Nuclear criticality evaluations
I.2.1.6	Supervisor, Health Physics	High School Diploma	5 Total/Nuclear industry, with 3/Senior Health Physics Technician
I.2.1.7	Senior Health Physics Tech.	High School Diploma	2/Training and experience in Radiation Protection activities

3.1.5 Supervisor, Quality Control Engineering

The Supervisor, Quality Control Engineering reports to the Manager, Quality Control. He supervises the quality control technicians who obtain the measurement samples and he supports the activities of the Manager. His support may include recommendations on sampling plans, development of statistical methods, evaluation of data trends, recommendations on measurement standards, participation in writing procedures, review and approval of Travelers and Operation Sheets and administration of the document control system.

3.1.6 Supervisor, Laboratory

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

3.1.7 Supervisor, Maintenance

The Supervisor, Maintenance reports to the Superintendent, Production. 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

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

C. R. Waterman - Vice President, Nuclear Fuel (Acting) (located in Windsor)

J. A. Rode - Plant Manager

CHARLES R. WATERMAN - VICE PRESIDENT, NUCLEAR FUEL (ACTING)

EDUCATION

B. S. Electrical Engineering, Tri-State College, 1957

EXPERIENCE

COMBUSTION ENGINEERING, INC.

Windsor, Connecticut

Vice President, Nuclear Fuel (Acting)

Dec. 1989 to Present

Vice President and General Manager,

Jan 1989 to Dec. 1989

Nuclear Fuel Manufacturing

Overall responsibility for the safe operation of Combustion Engineering's nuclear fuel manufacturing facilities located in Hematite, Missouri and in Windsor, Connecticut. Continuing responsibility as the Plant Manager for the Windsor Nuclear Fuel Manufacturing facility.

Plant Manager,

1988 to Jan. 1989

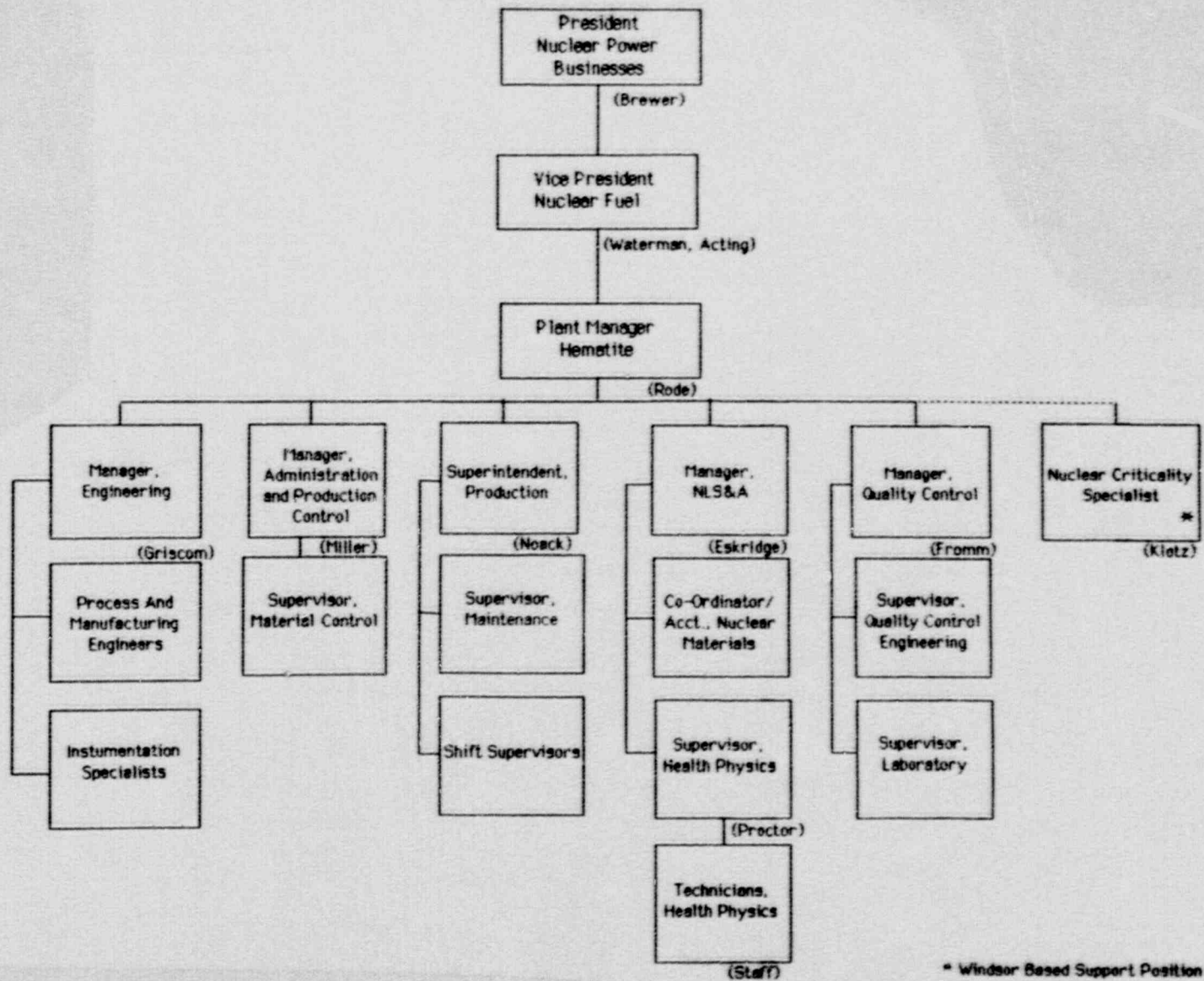
Windsor Nuclear Fuel Manufacturing

Responsible for day-to-day manufacturing operations, accountability, security, nuclear criticality safety and radiological safety related to all special nuclear and source material received by Windsor Nuclear Fuel Manufacturing and used in any manufacturing process. Assured compliance with Federal and State and local regulations and the requirements and limitations set forth in facility license SNM-1067.

Director, Outage Services

1986 to 1988

Responsible for management of outage services, for development test and application of maintenance and inspection services provided to nuclear utilities. These services included integrated refueling and maintenance



**FIGURE II.3-1**  
**HEMATITE PLANT ORGANIZATION CHART**

DOCKET NO. 70-36  
CONTROL NO. 26227  
DATE OF DOC. Dec. 20, 1989  
DATE RCVD. Jan. 2, 1990  
FOUF  PDR   
FOAF \_\_\_\_\_ LPD \_\_\_\_\_  
FOE REF.   
SAFEGUARDS   
FOFC 1/2/90 OTHER \_\_\_\_\_  
DATE 1/2/90 INITIAL SAC