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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUN 9 1982

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70-36
SNM-33, Amendment No. 8

Licensee:

Combustion Engineering, Inc.
ATTN: Mr. H. V. Lichtenberger
Vice President, Nuclear Fuel
Nuclear Power Systems-Manufacturing
1000 Prospect Hill Road
Windsor, Connecticut 06095

Gentlemen:

In accordance with your submittal dated January 27, 1982, and pursuant to Title 10, Code of Federal Regulations, Part 70, Condition 12 of Special Nuclear Material License No. SNM-33 is hereby amended to read as follows:

12. Within ninety (90) days of the date of this amendment, the licensee shall implement, maintain and execute the response measures of his Radiological Contingency Plan submitted to the Commission on January 27, 1982. The licensee shall also maintain implementing procedures for his Radiological Contingency Plan as necessary to implement the Plan. The licensee shall make no change in his Radiological Contingency Plan that would decrease the response effectiveness of the Plan without prior Commission approval as evidenced by a license amendment. The licensee may make changes to his Radiological Contingency Plan without prior Commission approval if the changes do not decrease the response effectiveness of the Plan. The licensee shall maintain records of changes that are made to the Plan without prior approval for a period of two years from the date of the change and shall furnish the Chief, Uranium Fuel Licensing Branch, Division of Fuel Cycle and Material Safety, NMSS, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and the appropriate NRC Regional Office specified in Appendix D of 10 CFR Part 20, a report containing a description of each change within six months after the change is made.

[illegible] This amendment [illegible] the staff's review of the [illegible] information and [illegible] any major exceptions to the [illegible] of the Standard Format and Content.

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A new Condition 24 is added to read as follows:

24. Within ninety (90) days of the date of this amendment, the licensee shall submit the following information to the Chief, Uranium Fuel Licensing Branch, for review:

a. Proposed revised pages to the Radiological Contingency Plan which incorporates the four categories of accident classification, i.e., Notification of Unusual Event, Alert, Site Area Emergency and General Emergency.

b. Proposed revised pages for those sections which require corollary changes to 2.a.

c. Proposed revised pages describing provisions for escalation of emergency classifications during the progress of an emergency situation and provisions for de-escalation and termination of emergency classifications.

Accordingly, Amendment No. 5, dated November 9, 1979, is superseded in its entirety.

All other conditions of this license shall remain the same.

These conditions were discussed and agreed to by your Mr. Eskridge and Mr. Bidinger of my staff on June 8, 1982.

Enclosed for your information is a copy of our safety evaluation in support of this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION

R. G. Page, Chief
Uranium Fuel Licensing Branch
Division of Fuel Cycle and
Material Safety, NMSS

Enclosure: Safety Evaluation Report

cc: H. E. Eskridge, CE

Docket No. 70-36

Licensee: Combustion Engineering, Inc.
Hematite Facility
Hematite, Missouri

SUBJECT: REVIEW OF RADIOLOGICAL CONTINGENCY PLAN

I. Background

Combustion Engineering, Inc. (C-E), at Hematite, Missouri, is authorized by NRC License No. SNM-33 to possess and use up to 4100 kgs of U-235 (<4.1% enrichment), 350 g of U-235 (> 4.1% enrichment) and 20,000 kg of source material. The licensee fabricates low-enriched uranium fuel for LWR's. The current license was renewed on March 31, 1977, and has a termination date of March 31, 1982. The license currently remains in effect pursuant to the timely renewal provisions of 10 CFR 70.33.

On February 11, 1981, the NRC issued an Order to C-E to submit within 180 days of the effective date of the Order a Radiological Contingency Plan for its Hematite facility in accordance with a standard format and content (Enclosure 1 to the Order). By letter dated April 8, 1981, the licensee requested an extension of time for submitting the radiological contingency plan to January 31, 1982, to coincide with the licensee's submittal of a renewal application for the license. The Director, Nuclear Material Safety and Safeguards, found that good cause existed for granting the additional time, and on May 13, 1981, an Order was issued modifying the February 11 Order to that effect.

On January 27, 1982, C-E submitted a Radiological Contingency Plan for its Hematite facility in accordance with the provisions of the February 11 Order. On April 21, 1982, NRC sent the licensee a letter identifying necessary additional information. On May 17, 1982 members of NRC staff met with representatives of C-E at the Hematite Facility to ensure that the additional information to be provided would adequately respond to NRC's request. The licensee has assured the staff that the requested information would be submitted on June 11, 1982. This amendment precedes the staff's review of the additional information and addresses only major exceptions to the requirements of the Standard Format and Content.

II. Discussion

The C-E Hematite site is located in Jefferson County, Missouri. This area is predominately rural and characterized by rolling hills with many sizable woodland tracts. All manufacturing operations are conducted within a fenced area located in the center of the site. The fenced area, parking lot, and barns, occupy about 5 of the 16-acre center tract. The remainder of the site consists of 136 acres of woodlands, streams and open spaces. The plant produces low enriched (less than 4.1% U-235) ceramic fuel for light water reactors. The fuel is subsequently fabricated into finished fuel elements at C-E's Windsor, Connecticut, plant.

There are four release points of airborne radioactive materials from the Oxide Building and three in the Pellet Plant. Ventilation and process air is exhausted through absolute filters and continuously sampled. A continuous air monitor, located on the 4th floor of the Oxide Building, will alarm should a release occur. The nuclear alarm system consists of gamma sensitive detectors, audible alarms and a remote indicator at the guard station. The detectors and alarm circuits are equipped with an auxiliary self starting diesel generator which will automatically supply power to the system in the event of disruption of primary power. Automatic monitors will give warning in case of any malfunction which renders the system inoperable. The uranium hexafluoride vaporizer condensate alarm system is designed to close an automatic shut-off valve, start a scrubber and shut off the steam supply in the event of a hexafluoride leak. There are both visible and audible alarms in the control room. The facility is equipped with two natural gas-powered emergency generators which will provide backup emergency power to maintain critical loads such as emergency air, water, steam, instrumentation, alarms, etc. The natural gas supply is non-interruptable.

The radiological contingency planning organization is sufficiently described to demonstrate the preplanning necessary for appropriate emergency response. The responsibilities of various supporting organizations are given as well as the procedures for implementing appropriate responses for the listed accident scenarios. General plans for recovery and reentry are presented.

III. Exceptions

The procedures for notifying offsite agencies are required to

reflect the classification scheme described in the Standard Format, i.e., Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency. Consequently, the NRC requires the identical classification scheme in order to be consistent with these notification procedures. The classification scheme must be changed accordingly and the description of hypothesized accidents redistributed to reflect the changed categories.

Provisions for escalating the emergency classification are to be included.

Other sections which reflect the various classifications are to be changed to incorporate the proper scheme.

IV. Conclusions and Recommendations

The C-E Hematite license should be amended, subject to the conditions discussed above, to incorporate the Radiological Contingency Plan dated January 27, 1982. The proposed amendment should have no adverse effect on the public health and safety or on the quality of the environment and should improve C-E's ability to protect against, respond to, and mitigate the consequences of an accident involving radioactive materials.

T. R. Decker
Environmental Radiation and
Emergency Support Section
Uranium Fuel Licensing Branch
Division of Fuel Cycle and
Material Safety, NMSS

Approved by: F. D. Fisher, Section Leader

R. G. Page, Chief
Uranium Fuel Licensing Branch
Division of Fuel Cycle and
Material Safety, NMSS

Enclosure: Safety Evaluation Report

cc: H. E. Nakmiage, CE