

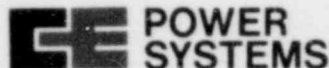
C-E Power Systems
Combustion Engineering, Inc.
1000 Prospect Hill Road
Windsor, Connecticut 06095

Tel. 203/688-1911
Telex: 99297

71-6294
PDR

Return to

D. Cranon
396-55



September 9, 1981

U. S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Mr. C. E. MacDonald, Chief
Transportation Branch
Division of Fuel Cycle & Material Safety

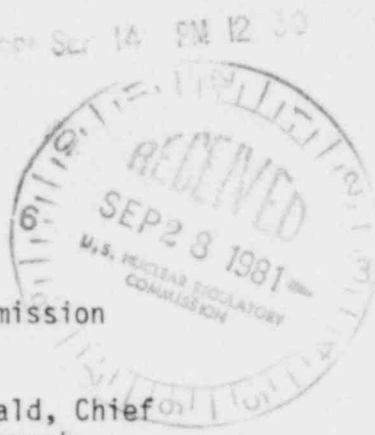
Reference: Docket No. 71-6294

Dear Mr. MacDonald:

Combustion Engineering, Inc. is a registered user of the UNC-2901 package, Certificate of Compliance 6294. Differences between handling procedures at C-E Hematite and C-E Windsor have indicated that improved utilization can be achieved by a modification of the internal pellet package. This letter is to request your review, approval, and subsequent revision of Certificate of Compliance 6294 to permit pellet packaging either by the currently licensed or proposed method.

Part 5(b)(2)(i) of Certificate of Compliance 6294 indicates that sintered pellets shall be packaged in accordance with Combustion Engineering, Inc. Drawing No. D-5008-8192, Rev. 05. This packaging method includes corrugated polyethylene coated steel trays. These trays are stacked together. A sponge rubber and wood slab is placed at the top and bottom of the stack to make up the pellet package. The alternate arrangement for which your approval is requested is shown in Combustion Engineering, Inc. Drawing No. NFM-E-4266, Rev. 0. The proposed packaging method utilizes covered steel trays which are stacked to a maximum of 20 trays (5 high x 4 deep). The new arrangement will be limited to the quantities and weights presently licensed.

The criticality safety analysis for the presently licensed packaging method will continue to be valid for the proposed method. Subcriticality is presently assured by a maximum credible H/U²³⁵ ratio of 205. Ratios below 205 were found to be less reactive. In the proposed new packaging arrangement, solid steel pellet trays are utilized in place of the polyethylene coated corrugated steel pellet holders. The proposed arrangement has a reduced hydrogen content resulting in a decreased H/U²³⁵ ratio and lower reactivity.



License SNM-1067
Docket 70-1100



Sept 81-2

Applicant.....
Check No. 223473
Amount/Fee Category 1357.110
By: J. J. J. J. J.
Check Rec'd. 9/21/81
PDR Sealed By: J. J. J. J. J.

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Also, the presently licensed inner packaging contains approximately 6.57% steel by volume whereas the proposed inner packaging will contain over 11.23% steel by volume. The increased steel content will more effectively poison the system and lower the reactivity even further.

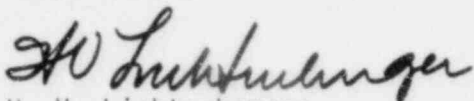
It is thus concluded that the proposed new inner packaging arrangement will remain subcritical during conditions normally incident to transportation as well as during all credible accident conditions.

The present structural evaluation is also applicable since the UNC-2901 outer and inner container and net weight of packaging will not be changed utilizing the proposed packaging method.

If you have any questions with respect to the proposed revision of Certificate 6294, or if additional information is needed to complete your review, please contact Mr. G. A. Johnstone of my staff at Ext. 3150.

A check in the amount of \$350.00, the minor amendment application fee specified in 10 CFR 170.31, Part 11D has been sent directly to the License Fee Management Branch under separate cover. ✓

Very truly yours,



H. V. Lichtenberger
Vice President-Nuclear Fuel
Nuclear Power Systems-Manufacturing

HVL/GAJ/ssb

Enclosure

"TRANSPORTATION APPROVALS"

Docket No. 71-6294

William O. Miller
License Fee Management Branch
Office of Administration

MATERIALS TRANSPORTATION APPROVAL CLASSIFICATION

Applicant: C & Power Systems

Approval No: 6294

Fee Category 11E

Application Dated: 9/9/81

Received: 9/15/81

Applicant's Classification: minor - 11D

The above application for amendment has been reviewed by the NMSS Transportation Branch, in accordance with Section 170.31, and is classified as follows:

1. Amendments to Approvals in Fee Categories 11A through 11E

- (a) Major
(b) ✓ Minor
(c) Administrative

2. Justification for reclassification:

package only for unirradiated uranium, therefore does not exceed type A quantity - contents are fissile. -11D

3. The application was filed (a) pursuant to written NRC request and the amendment is being issued for the convenience of the Commission, or (b) Other (State reason):

Signature: R. H. O'Quinn
Transportation Branch, NMSS
Date: 9/16/81