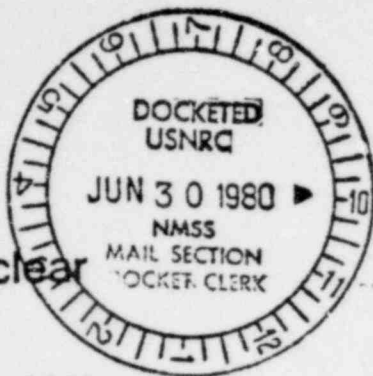


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NL Nuclear

June 23, 1980

U.S. NUCLEAR REG.
MAIL SECTION

Applicant.....
Check No. 27927
Amount/Fee Category 2850-11B
Type of Fee. minor
Data Check Rec'd. 6-1-80
Received By. [Signature]

Mr. Charles E. MacDonald
 Chief, Transportation Certification
 Branch
 U.S. Nuclear Regulatory Commission
 Washington, D.C. 20555

Subject: Certificate of Compliance No. 9010, Rev. 6

Gentlemen:

NL Industries requests that the subject Certificate of Compliance be revised to authorize the shipment of PWR uranium oxide fuel assemblies which contain additional fuel rods secured in the guide tube thimbles. Specifically, it is requested that an item 5(b)(1)(iv) be added as follows:

- (iv) Irradiated PWR uranium oxide fuel assemblies including additional irradiated fuel rods inserted and secured in the guide thimbles. The fuel assemblies shall conform to the maximum active dimensions as described in Item 5(b)(1)(i) except that maximum initial U content shall be 495 kg and the maximum average initial U-235 enrichment shall be 3.35 w/o.

There would be no increase in reactivity since the requested increase in uranium content coupled with the decrease in enrichment results in a mass of U-235 less than presently authorized.

It is also requested that Item 5(b)(1)(i) be revised to stipulate burnup as "Maximum average burnup".

The above revisions are being requested to accommodate an impending spent fuel shipment for Westinghouse Electric Corp., Water Reactor Division. The attached Table 1 was provided by Westinghouse and is enclosed for your general information. Note the cool down time for

Nuclear Division/NL Industries, Inc.
 Foot of West Street, Wilmington, Del. 19801 Tel. (302) 656-1661
 Mailing Address
 P.O. Box 2046, Wilmington, Del. 19899

16661

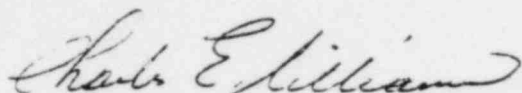
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Mr. Charles E. MacDonald
June 23, 1980
Page two

the last four rods listed. Westinghouse has made the following statements: "The combined decay heat of the one assembly and sixteen fuel rods was calculated to be approximately 5.0 kw, assuming a September 1, 1980 shipment date. The total Iodine radioisotope content to be present at the time of the shipment was calculated to be less than 1.0 curie." Based on these two statements the shipment is considered to be in compliance even though four of the fuel rods do not meet the minimum cooling time of 150 days stipulated by subject Certificate of Compliance.

Enclosed is a check, in the amount of \$2,800.00, as required by the schedule of fees given in 10 CFR 170.

Very truly yours,



Charles E. Williams
Engineering Manager

CEW/ljh

Enclosures

cc: G.N. Dixon, Jr.
G.L. Stukenbroeker

TABLE 1

NUCLEAR CHARACTERISTICS OF ZION SPENT FUEL TO BE SHIPPED

	<u>Initial U-235 Enrichment (w/o)</u>	<u>Total Uranium Mass (Kg)</u>	<u>Average Discharge Burnup (MWD/MTU)</u>	<u>Discharged⁽¹⁾ (Days)</u>
<u>Standard Assembly</u>				
C15	3.31	455.00	39,010	750
<u>Removable Rods</u>				
605, 616, 652 and 687	3.31	8.87	17,575	1650
607, 642, 691 and 695	3.31	8.87	31,193	1110
610, 677, 689 and 699	3.31	8.87	39,308	750
622, 624, 661 and 663	3.31	8.87	46,506	120
TOTAL		<u>490.48</u>		

(1) Assuming a September 1, 1980 shipment date.