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October 19, 1979

Dr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Dresden Station Units 2 and 3
Response to Request for Additional Information for Spent Fuel Pool Modification
NRC Docket Nos. 50-237 and 50-249

Dear Dr. Denton:

In response to questions received in telephone conversations with the NRC Staff, the following information is provided in regard to the Dresden Units 2 and 3 Spent Fuel Pool Modifications.

During installation of the high density spent fuel racks, general procedures will be utilized which will prevent the movement of new racks and existing racks being removed over racks containing spent fuel. Also, a surveillance program using rack materials in the fuel pool environment, similar to the attached Zion program, is being prepared and will be implemented.

Please address any questions you may have concerning this matter to this office.

One (1) signed original and thirty-nine (39) copies of this transmittal are provided for your use.

Very truly yours,

Robert F. Janecek

Robert F. Janecek
Nuclear Licensing Administrator
Boiling Water Reactors

RFJ:mae
cc: John F. Wolf, Esq.
Dr. Linda W. Little
Dr. Forrest J. Remick
Susan N. Sekuler

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May 25, 1979

NEUTRON ABSORBER SAMPLING PLAN - IN POOL

A sampling plan to verify the integrity of the neutron absorber material employed in the high density fuel racks in the long-term environment is described.

The test conditions represent the vented conditions of the spent fuel tubes. The samples will be located adjacent to the fuel racks and suspended from the spent fuel pool wall. Eighteen (18) test samples are to be fabricated in accordance with Figure 1 and installed in the pool when the racks are installed.

The procedure for fabrication and testing of samples shall be as follows:

1. Samples shall be cut to size and dried in an oven for five hours at 170°F, followed by a cycle at 600°F for three hours.
2. Samples shall be weighed immediately following removal from the oven and weight in milligrams recorded for each sample.
3. Samples shall be fabricated in accordance with Figure 1 and installed in pool.
4. Two samples shall be removed per schedule shown in Table 1.
5. Carefully cut samples apart at the weld without damaging the neutron absorber. Wash with a soft brush in a mild abrasive and detergent solution, immerse in nitric acid to remove surface products, followed by a rinse of clean water and alcohol. Dry in a 175°F oven for five hours, followed by a cycle at 600°F for three hours.
6. Weigh the samples and evaluate the weight change in the neutron absorber material in milligrams per square centimeter per year.
7. Visually examine the clad surface for pitting. Take micrographs of the edge surface and any other suspect areas.
8. If pitting is present, the depth of the four major pits are to be recorded and the average pit penetration in mils of an inch per year determined.

9. Prepare report of sample test results and observations.

10. Should any adverse conditions be detected, the samples may be subject to a B^{10} loading analysis.

11. Additionally, two full length vented fuel storage tubes will be suspended in the pool and be examined should the sample program indicate any loss of absorber material below .02gm/cm^2, Boron^{10}.

12. Retain samples.

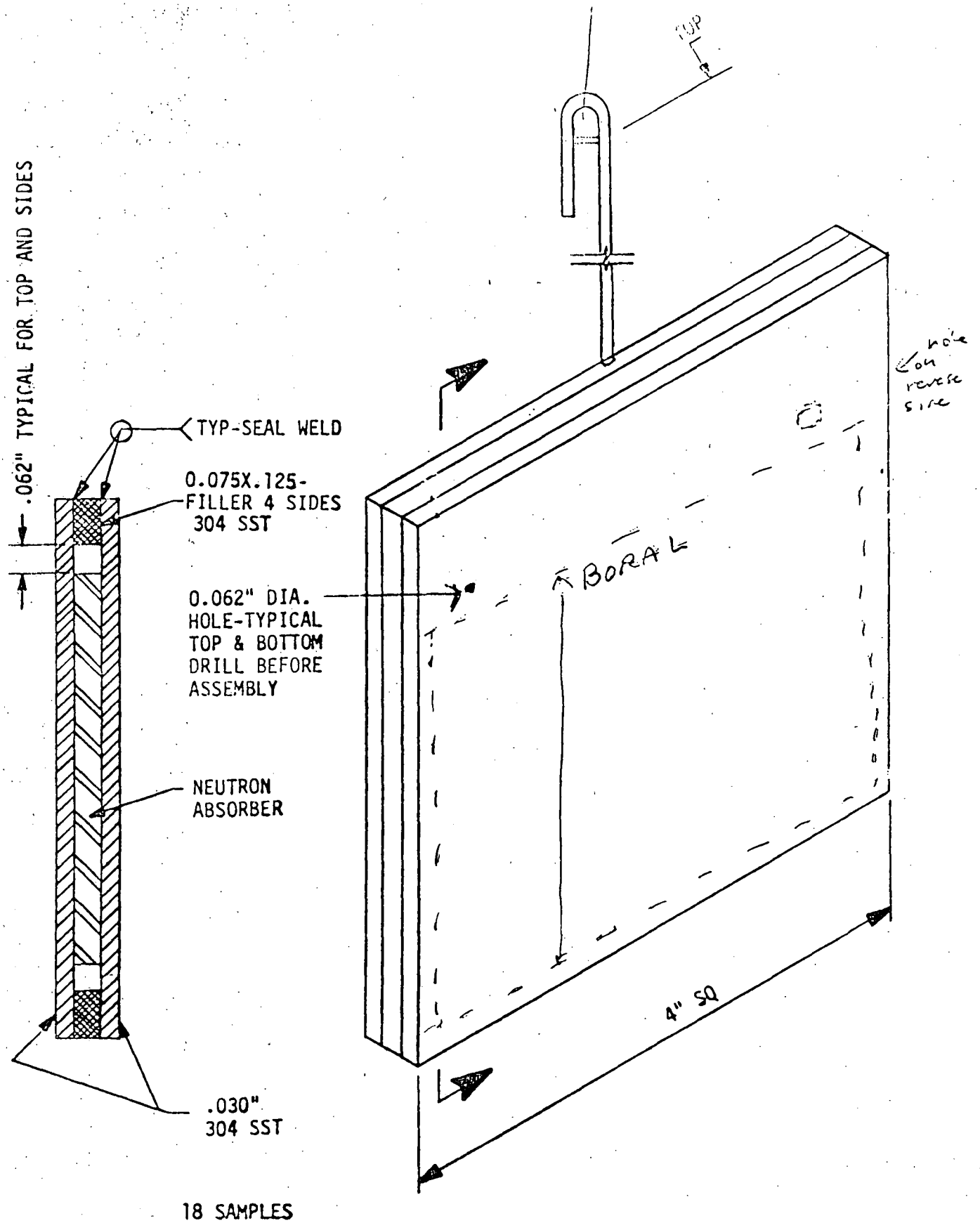
.062" TYPICAL FOR TOP AND SIDES
TYP-SEAL WELD
0.075X.125-
FILLER 4 SIDES
304 SST
0.062" DIA.
HOLE-TYPICAL
TOP & BOTTOM
DRILL BEFORE
ASSEMBLY
NEUTRON
ABSORBER
.030"
304 SST
18 SAMPLES
TOP
hole on reverse side
BORAL
4" SQ

Figure 1.

TABLE 1

Date Installed _____

SAMPLE NO.	SCHEDULE	INITIAL WEIGHT (mg/Cm^2-Yr)	FINAL WEIGHT (mg/Cm^2-Yr)	WEIGHT CHANGE (mg/Cm^2-Yr)	PIT PENETRATION mil/Yr
1					
2	90 day				
3					
4	180 day				
5					
6	1 year				
7					
8	5 year				
9					
10	10 year				
11					
12	15 year				
13					
14	20 year				
15					
16	30 year				
17					
18	40 year				