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**Pacific Northwest Laboratory
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GRAPHITE BAR IRRADIATION HISTORY
C-REACTOR

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November 14, 1968

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MASTER

GRAPHITE BAR IRRADIATION HISTORY, C-REACTOR

The following is all the information we can get on the graphite bar history from the A and G test holes at C-Reactor.

ATH

The A test hole was charged with 18 - 23-1/2" long graphite bars before the original startup of C-Reactor. This was 6/12/53.

On 9/21/63 seven of the graphite bars were discharged. Position #18 thru #12. Positions #11 thru #1 are still in the reactor. Data on the seven bars discharged and the eleven bars still in the reactor is as follows:

<u>Position</u>	<u>Bar Identification</u>	<u>Total MWD/AT Thru 9/21/63</u>	<u>Total MWD/AT Thru 10/31/68</u>
18	GBF-197-3T #1-TS17	11,642	
17	GBF-195-15B #1-TS24	17,690	
16	GBF-201-3T #1-TS29	24,293	
15	GBF-197-61B #1-TS17	25,704	
14	GBF-196-3T #1-TS24	26,762	
13	GBF-195-3T #1-TS24	26,661	
12	GBF-201-15B #1-TS29	25,099	
Positions 11 thru 4			42,055
3			39,100
2			28,600
1			18,900

Position #1 starts on the near side (rod room) of the reactor in the fringe of the graphite. Bar identification for positions 11 thru 1 is unknown to Irradiation Testing.

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GTH

On 7/21/59 a 2-foot section of tube block was removed from the G test hole. This tube block had received 15,462 MWD/AT at time of discharge.

On 4/21/60 three solid graphite bars were removed from the G test hole. These bars received a total of 18,642 MWD/AT.

There are six more bars in the G test hole. They are in positions 1 thru 6. The approximate total exposure is as follows:

<u>Position</u>	<u>Total MWD/AT</u> <u>Thru 10/31/68</u>
1	21,800
2	33,000
3	45,100
4 thru 6	48,500

We believe that there are some additional bars in the D test hole, but Irradiation Testing has no record of charge-discharges for this test hole.

At present the three test holes are all blocked on the X-level preventing discharge. A method could be devised for block removal from the rod room side.

W B Olson

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