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HANFORD ATOMIC PRODUCTS OPERATION - RICHLAND, WASHINGTON

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LOADING AND OPERATING CONDITIONS FOR
A CHARGE OF FIVE 23-INCH NAE-1 ELEMENTS
IN KER-3 OR KER-4 UNDER PT-IP-477-A

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By Jerri Mally 3-24-94
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February 28, 1962

HANFORD ATOMIC PRODUCTS OPERATION
RICHLAND, WASHINGTON

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LOADING AND OPERATING CONDITIONS FOR
A CHARGE OF FIVE 23-INCH NAE-1 ELEMENTS IN KER-3 OR KER-4 UNDER PT-IP-477-A

Production Test IP-477-A⁽¹⁾ authorized the irradiation of NAE-1⁽²⁾ elements in KER-3 and KER-4 and specified certain limitations on the operating conditions for the elements. The test required that specific operating conditions and trip settings for particular loadings would be approved by the Managers of the Process and Reactor Development Sub-Section and the Process Technology Sub-Section prior to charging.

The purpose of this document is to provide the process tube loading and the operating limits for a charge of five 23-inch NAE-1 elements in KER-3 and KER-4.

The loading for either loop is given in Table 1. The operating conditions and limits are given in Figure 1. Water shut-off times will be supplied by the test author as required.

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- (1) Kratzer, W. K., Production Test IP-477-A, Irradiation of N Reactor Fuel Elements in KER Loops 3 and 4, HW-72269, January 9, 1962 (SECRET)
- (2) Kusler, L. E. and W. K. Kratzer, Method for Designating Experimental Coextruded Zircaloy-2 Jacketed Fuel Elements, HW-67225, October 26, 1960 (CONFIDENTIAL-UNDOCUMENTED)

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TABLE I

PROCESS TUBE LOADING FOR FIVE TWENTY-THREE INCH
NAE-1 ELEMENTS IN KER-3 OR KER-4

<u>Position from the</u> <u>Downstream End</u>	<u>Number of</u> <u>Pieces</u>	<u>Description</u>
1-13	13	16 inch tubular perf
14-18	5	23 inch NAE-1 elements
19-30	12	16 inch tubular perfs

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FIGURE 1

OPERATING CONDITIONS FOR A CHARGE
OF FIVE NAE-1 ELEMENTS IN KER-3
OR KER-4

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Centimeter

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