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HANFORD ATOMIC PRODUCTS OPERATION, RICHLAND, WASHINGTON

(CLASSIFICATION)

OPERATING CONDITIONS FOR PT IP-205-A,
IRRADIATION OF ZIRCALOY-2 JACKETS
ROD-AND-TUBE ELEMENTS IN THE KER LOOPS

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November 25, 1958

OPERATING CONDITIONS FOR PT IP-205-A, IRRADIATION OF
ZIRCALOY-2 JACKETED ROD-AND-TUBE ELEMENTS IN THE KER LOOPS

This document details the operating conditions for the revised loading of rod-and-tube elements charged in KER Loop 4 on November 17, 1958, under PT-IP-205-A. (1)

Loading

The loading pattern consists of fourteen eight-inch spacer elements downstream, one eighteen-inch UO₂ cluster element, seventeen spacer elements, one three-foot rod-and-tube element, three spacer elements, one three-foot rod-and-tube element, and seven spacer elements upstream. The spacer elements include triangular spacers, perforated triangular spacers, coupon holders, and solid cylindrical spacers.

Operating Conditions

The coolant will be pressurized water with a nominal pH of 4.5. The operating conditions are:

- Desired operating flow - 60 GPM.
- Low flow trip - 48 GPM.
- Low pressure trip - 785 psig.
- High outlet temperature trip - as shown in figure 1.
- Desired operating outlet temperature - as shown in figure 1.
- Boiling point suppression trip - as shown in figure 1.

If recirculation with system pressures less than 785 psig is required, the outlet temperature should be reduced and maintained at least 100° C below the system saturation temperatures.

WK Kratzer:imb

APPROVED BY

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Reactor Fuels Operation
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(1) HW-57732, "PT-IP-205-A, Irradiation of Zircaloy-2 Jacketed Rod-and-Tube Elements in the KER Loops"; WK Kratzer, October 9, 1958.

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FIGURE 1
OPERATING CONDITIONS FOR
PT-205-A IN KER LOOP 4