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HW-23562
Page -1-

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Mr. R. T. Jasko
Reactor Unit
HANFORD WORKS

MATERIAL LOSS IN RUPTURED FUEL ELEMENTS

Mr. L. D. Turner of the Radiometallurgy Group, Pile Technology Unit was contacted and requested to determine the amount of material lost upon rupture of a fuel element.

Mr. Turner stated it was impossible to determine the amount lost on a weight basis because oxide formation usually resulted in a gain in weight. It was possible, however, to approximate the loss on a volumetric basis, estimating the volume of the hole remaining following the rupture.

One hundred thirty (130) ruptured fuel elements or their photographs were examined by the Radiometallurgy Group. It was estimated that 9.5 lbs. $\pm$.5 lb. were lost in the ruptures of the 130 fuel elements or 520 lbs. of fuel material.

It should be noted that the relative amounts of product going into the 107 cribs and 105 pluto cribs cannot be accurately determined.

SPECIAL RE-REVIEW

FINAL DETERMINATION

DECLASSIFICATION CONFIRMED

BY JW JORDAN DATE 5/15/81

BY JP LEROUX DATE 5/22/81

TL BURNSTIDE 9/5/90

J. H. Hoage
J. H. Hoage
Contact Engineering
Reactor Section

MASTER

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