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TITLE

ACCOUNTABILITY EQUATIONS FOR PLUTONIUM AND TRITIUM YIELDS FOR PT-IP-305-C AT 105-H

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ACCOUNTABILITY EQUATIONS FOR PLUTONIUM
AND TRITIUM YIELDS FOR PT-IP-305-C AT 105-H

It will be necessary to provide accountability tables and equations for use in routine product buildup predictions by the Production Computing Operation for the duration of the E-N and blanket loads charged under PT-IP-350-C. The following values are recommended:

E-N Striped Loading

Tritium yield: .00256 gms T/MWD in each striped column (undecayed)

Plutonium yield: Use of the SSA 50 - SSA 100 accountability code is recommended, with proper adjustment of parameters (probably p) to yield .772 gms Pu/MWD at 746 MWD/T.

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Fringe Loading (all E columns not containing Li-Al slugs)

Tritium yield: .0177 gms T/MWD_{adj} (undecayed)

Pu yield: Use of the SSA 50 - SSA 100 accountability code is recommended with proper adjustment of parameters (probably p) to yield .726 gms Pu/MWD at 746 MWD/T.

"Spike" Lithium-Aluminum Columns

No recent experimental data are available; current accountability values for enriched lithium-aluminum poison columns should be followed.

Recommended tritium and plutonium yields are taken from HW-68184, "E-N and Blanket Conversion from Analysis of Tubes Irradiated at H," L. W. Lang and W. S. Nechodom, February 10, 1961. Tritium yields are undecayed values.

It is understood that the results of the product yield analysis in the twelve, two-ton-test batches recently completed have suggested revisions in the SSA codes; these revisions should be incorporated when preparing E-N and blanket yield tables.

W S Nechodom

Reactor Physics
Process and Reactor Development Subsection

WS Nechodom:eck

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