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**Pacific Northwest Laboratory
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HW-3-236

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June 19, 1944

Production Test No. 313-7-M

THIS DOCUMENT CONSISTS OF 1 PAGE

CANNING PROCEDURE STUDY OR 8 COPIES, SERIES 1

Barium Chloride Base Flux for Bronze Bath COPY 1

CLASSIFICATION CANCELLED
DATE 1-14-59
For The Atomic Energy Commission
H. P. Canale
Chief, Declassification Branch

INV. 9-47

Objective Elimination of Calcium Chloride base flux and substitution of Barium Chloride base flux for use on bronze dipping bath.

Basis The Calcium Chloride base flux used at the present time on the bronze bath is not entirely satisfactory. This Calcium Chloride flux is associated with small unwetted spots that are obtained on some slugs when they are dipped in bronze. Laboratory experiments have been conducted with a flux consisting of 45% Barium Chloride 31% Calcium Chloride, and 21% Sodium Chloride and the flux appears to be entirely satisfactory for use on the bronze bath. The procurement of C.P. Barium Chloride is much easier than C.P. Calcium Chloride a fact which in itself makes the Barium Chloride appear desirable.

Procedure Can as many pieces as possible (probably 75) with one flux change employing 1/2" of the flux on the bronze bath. No other process change will be made.

Data Observe each slug coming out of the bronze bath and record the kind and amount of wetting that is being obtained. Regular inspection data will be obtained on the pieces. Attempt correlation of bond (frost test) versus use or non-use of this flux.

Equipment and Materials Any canning line acceptable. Flux to be supplied by Technical.

Responsibility R. C. Grille--arrangement and scheduling with Operation, and for collection of data.
E. V. Lewis--treatment of data
K. G. Jones--recommendation as to action to be taken on results.

Test approved
Operations 6/19 Date
Technical 6/19 Date

KGW:ROG:alr

MASTER

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