WESTINGHOUSE ELECTRIC CORPORATION
ASTRONUCLEAR LABORATORY

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TO: F. D. Retallick

Date: November 14, 1963

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From: S. Cemi, Reactor Analysis

Subject: Feed System Performance
NE8010E

A meeting was held on November 13, 1963, to discuss the expected behavior of the Test Cell A feed system for the chilldown runs on NRX-A1. Present were P. Davison, F. DiCuia, W. Howarth and the writer. It was concluded that the proposed operating procedure will result in a step of up to 2 lb/sec upon opening of OBV-86. The sequence of operations would be:

MASTER

- 1) chilldown piping to OBV-86 by venting approximately 2 lb/sec through AVV-11
- 2) open OBV-86
- 3) close AVV-11
- 4) program ACV-3 and the pump to provide specified ramp flow rate starting from about 2 lb/sec.

It was pointed out that the piping downstream of OBV-86 is not chilled down initially and that this length of piping should be included in the chilldown calculations.

The ambient temperature existing in Nevada at the test time is probably closer to 500 °R than the presently assumed 540 °R. This is important in describing the initial temperature level of the reactor and the temperature level to which the reactor can be reheated with ambient hydrogen between cold flow runs.

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INFORMATION CATEGORY

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S. Cemi
Authorized Classifier

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Tests performed to date on the mixing chamber indicate that it will be possible to hold a temperature into the reactor of 90°R minimum value with $\pm 5^{\circ}\text{R}$ tolerance, thereby producing a temperature of from 90 to 100°R at the nozzle inlet.

It was agreed that where possible the above considerations will be factored into prediction calculations now underway.

SIGNED

S. Cerni

mlb