AIM

Association for Information and Image Management

1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910
301/587-8202

Centimeter

Inches

MANUFACTURED TO AIM STANDARDS
BY APPLIED IMAGE, INC.

1 of 1

DECLASSIFIED

HM-67080

This document consists of
4 pages.

COPY 1 OF 1, SERIES M01

PRELIMINARY REPORT - This report was prepared for use within General Electric Company in the course of work under Atomic Energy Commission Contract AT(45-1)-1350. Any views or opinions expressed in the report are those of the author only.

DISTRIBUTION

1. OC Schroeder	15. SS Jones
2. ER Astley	16. AR Maguire
3. RS Bell	17. CA Priode
4. JL Benson	18. T Prudich
5. JH Brown	19. WH Radtke
6. BR Cremer	20. RW Reid
7. EJ Filip	21. WD Richmond
8. WE Fuller	22. A Russell
9. SM Graves	23. WR Smit
10. OH Greager	24. HD Spencer
11. AB Greninger	25. RE Trumble
12. CN Gross	26. 300 Files
13. AK Hardin	27. Record Center
14. CM Heeb	

IRRADIATION PROCESSING DEPARTMENT

October 11, 1960

O. C. Schroeder, Manager
Manufacturing Section

BEST COPY AVAILABLE

RECOMMENDED HIGH-TANK TEMPERATURE
FOR MAINTENANCE OF HIGH-TANK BACKUP SUPPORT

High tank line cleaning and low flow tests at B, D, F, and H Reactors have been completed and the results analyzed and related to high tank backup support. In addition, we understand that interim provisions have been completed at the old reactors for bleeding and temperature measurement of high tank cooling water. It is the purpose of this letter to supply a recommended guide for maintaining high tank temperature control.

DECLASSIFIED

MASTER

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

Classification Cancelled and Changed To

DECLASSIFIED

By Authority of C.G.-PR-2

W.A. Snyder, 1-26-94

By Chris Maly, 4-20-94

Verified By M. Hanson, 4-20-94

DECLASSIFIED

HW-67080

O. C. Schroeder

-2-

October 11, 1960

As was communicated in a recent letter to the AEC, we do not feel it is practicable to relate somewhat arbitrary standards of reference for backup support to precise operating limits to reactor power levels, particularly as a mandatory requirement. We do feel, however, that considerable emphasis should be placed on insuring that high tank backup support be maintained in the maximum practical manner. To this end we are supplying high tank temperature vs. reactor power level relationships which satisfy the intent of our backup criteria and are consistent with the specific standards of reference which we have chosen.

Current reactor power levels are below the maxima in the attached graph for the high tank temperatures currently being maintained. It is anticipated that bulk outlet temperature or rupture control restrictions on operating levels will preclude operation at power levels above these maxima during this winter and (with modifications discussed below) probably through next summer.

The high tank temperature requirements shown in the accompanying graph are based on the results of high tank line cleaning and low flow calibration tests. These requirements are appropriate only as long as the pressure drop across the high tank strainers is maintained at less than seven psi during use. Establishing and maintaining high tanks and lines free from loose crud or further buildup of corrosion products is therefore necessary. Recommendations designed to reduce the potential for strainer plugging will be submitted in the near future.

The following actions designed to further improve high tank support are planned. A production test to characterize more accurately reactor heat output after shutdown is circulating for approval. A reduction in the conservatism currently applied to reactor heat output data based on the results of this test is anticipated. Further, reduction of the pressure drop across the high tank strainers, by operating with the strainers in parallel and by strainer redesign, is being investigated. It is believed that the results from these actions could improve high tank support significantly and will require additional review and revision of the attached curves. An evaluation of the status of high tank support is being prepared by Process and Reactor Development.

There has been no attempt to factor export line backup support into the relationships presented in this letter. Review of the adequacy and reliability of the export system is in progress. Appropriate recommendations relating to the export system, if required, will be presented at a later date.

O.A. Greager
Manager,
Research and Engineering

OH Greager:SMG:md

DECLASSIFIED

HW-67080

-3--

FIGURE 1

HI-TANK TEMPERATURES VS. REACTOR LEVEL

B, D, & F REACTORS.

DECLASSIFIED

HW-67080

FIGURE 2

HI-TANK TEMPERATURES VS.
REACTOR LEVEL - C, DR, & H
REACTORS.

2500

LEGEND

PRESENT LEVEL AND
HI-TANK TEMPERATURE

OPTIMISTIC AUG. 1961
LEVEL & HI-TANK TEMP.

DATE

FILMED

9 / 8 / 94

END