

Docket Nos. 50-172, 176

X X

APR 1 1964

From: E. G. Case, Acting Director
Division of Reactor Licensing
U. S. Atomic Energy Commission
Washington 25, D. C.
Original Signed by: Robert H. Bryan / for Case

To : Lockheed Aircraft Corporation
Dawsonville, Georgia

Attention: Mr. R. I. Mitchell
Vice President

Change No. 2
License No. R-86, as amended

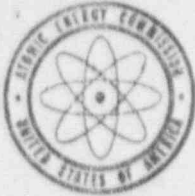
DETERMINATION HAS BEEN MADE THAT YOUR LETTER REQUEST DATED 3/27/64 WHICH INCORPORATES YOUR PREVIOUS SUBMITTALS DATED 3/26/64 (TWX), 3/13/64, AND 1/28/64 DOES NOT PRESENT SIGNIFICANT HAZARDS CONSIDERATIONS NOT DESCRIBED OR IMPLICIT IN THE HAZARDS SUMMARY REPORT AND THAT THERE IS REASONABLE ASSURANCE THAT THE HEALTH AND SAFETY OF THE PUBLIC WILL NOT BE ENDANGERED. ACCORDINGLY, PURSUANT TO SECTION 50.59 10 CFR 50, NEW PARAGRAPH 2.d. IS ADDED TO SECTION J. EXPERIMENTAL FACILITIES, OF THE TECHNICAL SPECIFICATIONS APPENDED TO OPERATING LICENSE R-86, AS AMENDED, AS FOLLOWS TO PERMIT OPERATION OF THE RADIATION EFFECTS REACTOR AT POWER LEVELS NO GREATER THAN 200 WATTS FOR A MAXIMUM TIME OF 60 HOURS UTILIZING THE LITHIUM HYDRIDE SHIELD DESCRIBED IN THE SUBMITTALS REFERENCED ABOVE:

ADD NEW PARAGRAPH 2.d. TO SECTION J. QUOTE EXPERIMENTAL FACILITIES UNQUOTE WHICH READS: QUOTE 2.d. EXPERIMENTS WITH LITHIUM HYDRIDE SHIELD.

(1) DURING CONDUCT OF EXPERIMENTS WHILE THE LITHIUM HYDRIDE SHIELD IS INSTALLED IN THE FACILITY NO EXPERIMENTS INVOLVING OTHER THAN TRACE QUANTITIES OF POTENTIALLY EXPLOSIVE MATERIALS WILL BE IRRADIATED.

9202260275
200
A-12
9202260275 910725
PDR FOIA
SWEENEY91-233 PDR

- (2) THE PRESSURE WITHIN THE SHIELD WILL BE MAINTAINED BETWEEN 15 AND 20 PSIA. THE SAFETY VALVE SHALL BE SET TO RELIEVE AT A PRESSURE NO GREATER THAN 5 PSIG. SHOULD THE UPPER LIMIT ON PRESSURE BE APPROACHED DURING THE COURSE OF AN EXPERIMENT OR SHOULD A DROP IN PRESSURE INDICATIVE OF A SHIELD LEAK OCCUR THE REACTOR WILL BE SHUTDOWN AND LOWERED INTO THE POOL.
 - (3) A HELIUM ENVIRONMENT SHALL BE MAINTAINED ON THE LITHIUM HYDRIDE AT ALL TIMES.
 - (4) REACTOR POWER LEVEL SHALL NOT EXCEED 200 WATTS THERMAL AND THE TOTAL EXPOSURE OF THE SHIELD IN ITS TEST POSITION SHALL NOT EXCEED 12 KILOWATT HOURS THERMAL.
 - (5) WHEN INSTALLED IN THE FACILITY AND NOT IN USE THE SHIELD WILL BE STORED AT A POSITIVE INTERNAL PRESSURE. WEEKLY CHECKS ON PRESSURE WILL BE PERFORMED IN ORDER TO DETERMINE THE LEAKAGE RATE FROM THE SHIELD UNQUOTE.
- PARA: THE ABOVE ADDITION TO THE TECHNICAL SPECIFICATIONS IS HEREBY DESIGNATED AS CHANGE NO. 2 TO LICENSE NO. R-86, AND IS EFFECTIVE THIS DATE.
- PARA: CONFIRMATION WILL FOLLOW BY LETTER.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

LICENSE AUTHORITY FILE COPY

Do Not

Superseded

IN REPLY REFER TO:

Docket Nos. 50-172
50-176

APR 7 1964

Lockheed Aircraft Corporation
Dawsonville, Georgia

License No. R-86,
as amended
Change No., 2

Attention: Mr. R. L. Mitchell
Vice President

Gentlemen:

This refers to your requests dated January 28, 1964, March 13, 1964, March 26, 1964 (TWX), and March 27, 1964 for AEC authorization to change the Technical Specifications of the license to permit operation of the Radiation Effects Reactor at power levels no greater than 200 watts for a maximum time of 60 hours utilizing the lithium hydride shield described in the submittals referenced above. Your requests have been designated as Proposed Change No. 2 to License No. R-86, as amended, and have been considered pursuant to the provisions of Section 50.59 of 10 CFR Part 50.

We have reviewed the Proposed Change and have found that it does not present significant hazards considerations not described or implicit in the hazards summary report, and that there is reasonable assurance that the health and safety of the public will not be endangered. A copy of a related Hazards Analysis by the Test & Power Reactor Safety Branch is attached.

Accordingly, pursuant to Section 50.59, 10 CFR Part 50, the Technical Specifications of Facility License No. R-86, as amended, are amended as set forth in Attachment A to this letter.

This letter confirms the teletype authorization dated April 1, 1964.

Sincerely yours,

Edson G. Case

Edson G. Case, Acting Director
Division of Reactor Licensing

Attachments:

1. Attachment A
2. Hazards Analysis

Superseded

A-13

ATTACHMENT A

CLgc #2

CHANGES TO TECHNICAL SPECIFICATIONS

Add new paragraph 2.d. to Section J "EXPERIMENTAL FACILITIES" as follows:

"2.d. Experiments with lithium hydride shield.

- (1) During conduct of experiments while the lithium hydride shield is installed in the facility, no experiments involving other than trace quantities of potentially explosive materials will be irradiated.
- (2) The pressure within the shield will be maintained between 15 and 20 psia. The safety valve shall be set to relieve at a pressure no greater than 5 psig. Should the upper limit on pressure be approached during the course of an experiment, or should a drop in pressure indicative of a shield leak occur, the reactor will be shutdown and lowered into the pool.
- (3) A helium environment shall be maintained on the lithium hydride at all times.
- (4) Reactor power levels shall not exceed 200 watts thermal and the total exposure of the shield in its test position shall not exceed 12 kilowatt hours thermal.
- (5) When installed in the facility and not in use the shield will be stored at a positive internal pressure. Weekly checks on pressure will be performed in order to determine the leakage rate from the shield.

Effective date: April 1, 1964

A-13a