

Annual File 9

50-22

6-30-60

Mr. H. T. Morris, Manager  
Westinghouse Electric Corporation  
Westinghouse Test Reactor  
P. O. Box 355  
Pittsburgh 30, Pennsylvania

Dear Mr. Morris:

Enclosed is a copy of an Order which I have issued today  
respecting the operation of the Westinghouse Testing Reactor.

Sincerely yours,

H. L. Pries, Director  
Division of Licensing and  
Regulation

Enclosure  
As stated

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UNITED STATES OF AMERICA

ATOMIC ENERGY COMMISSION

In the Matter of  
WESTINGHOUSE TESTING REACTOR

)  
) Facility License No. TR-2  
)

Based upon an investigation of the incident which occurred at the Westinghouse Testing Reactor (WTR) on April 3, 1960, involving the partial destruction of a fuel element through overheating and subsequent melting, it appears that:

1. The immediate cause of the incident may have been either or both of the following factors:

- a. Inadequate coolant flow due to the boiling condition in the core;
- b. A defective metallurgical bond in the fuel element.

2. The incident might have been substantially minimized if the WTR reactor operators had been provided with specific detailed instructions relating to operation of the facility when a sudden change in reactivity occurs.

3. The venting system for the process water head tank and the water surge tank should be modified or eliminated to protect against releases of fission products to the atmosphere.

In view of the foregoing and pursuant to the Atomic Energy Act of 1954, as amended, and the regulations in Parts 2 and 50, Title 10, Code of Federal Regulations, It is hereby Ordered That:

1. Westinghouse Electric Corporation (hereinafter referred to as Westinghouse) shall, prior to loading and startup of the WTR, file a report with the Atomic Energy Commission stating therein the corrective measures taken or to be taken to prevent recurrence of the April 3, 1960, incident. The report shall include an analysis of the incident and a description of the findings resulting from the metallurgical examination of the melted fuel element and comments on Items 1 through 3 above. The report shall also describe the inspection of the fuel elements to be loaded into the reactor.

2. Westinghouse shall not load or start up the WTR without the prior written approval of the Atomic Energy Commission. Such approval will not be granted until the report required to be filed by Westinghouse pursuant to the terms of paragraph 1 of this Order has been received and evaluated by the Atomic Energy Commission.

3. Within 30 days after receipt of this Order, Westinghouse shall submit to the Atomic Energy Commission plans for proposed changes in the venting system for the process water head tank and the process water surge tank designed to protect against releases of

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fission products to the atmosphere. Pending written approval by the Atomic Energy Commission of such modifications and the completion of such modification, Westinghouse shall operate the WTR, after written approval by the Commission pursuant to paragraph 2 of this Order, only in accordance with the terms and provisions of license number TR-2 and the following limitations:

- a. Westinghouse shall not conduct reduced coolant flow experiments in the reactor;
- b. Westinghouse shall not operate the reactor at a power level in excess of 30 megawatts (thermal); and
- c. Such other limitations as may be specified in any written approval granted pursuant to paragraph 2 of this Order by the Atomic Energy Commission to load and start up.

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The Westinghouse Electric Corporation may request a formal hearing with respect to this Order, or any part thereof, by filing a written request for hearing with the Office of the Secretary, United States Atomic Energy Commission, Washington 25, D. C., within fifteen days after the date of this Order. Filing of a written request for hearing may also be accomplished in person either in the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., or the Office of the Secretary, Germantown, Maryland.

Pursuant to Section 2.202(b) of the Commission's "Rules of Practice," 10 CFR 2, a timely filing of a request for formal hearing with respect to this Order, or any part thereof, shall stay the Order, or such part of the Order, pending determination of the issues by the Commission.

FOR THE ATOMIC ENERGY COMMISSION

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M. L. Price, Director  
Division of Licensing and Regulation

Dated at Germantown, Maryland,

June 30, 1960