

JUL 19 1960

Mr. James T. Ramey
Executive Director
Joint Committee on Atomic Energy
Congress of the United States

Dear Mr. Ramey:

We previously informed the JCAE of a radiation incident which occurred on April 3, 1960, and which involved the Westinghouse Test Reactor at Waltz Mills, Pennsylvania. This occurrence resulted in the partial destruction of one reactor fuel element through overheating and subsequent melting.

It appears at this time that either or both of two factors played a major part in this incident, as follows: (1) inadequate coolant flow under conditions existing at the time; and (2) defective metallurgical bonding in the fuel element. In order to gain additional knowledge as to the technical origin of the incident, studies are presently being conducted with respect to heat transfer phenomena as related to this reactor and metallurgical aspects of the damaged fuel element.

The licensee's organization promptly recognized the potential of this incident and functioned effectively in coping with possible and actual aftereffects of the situation. As a result of the incident, the process water head tank became filled with radioactively contaminated water, and served as a temporary source of moderately high gamma radiation levels within a few hundred feet of the tank. Evacuation of the facility was accomplished in an expeditious manner. Radiation surveys of the surrounding area were instituted promptly. No personnel overexposures occurred and no offsite contamination was detected.

Based upon the AEC investigation of the incident, an order was issued to Westinghouse Electric Corporation on June 30, 1960. A copy of the order is attached.

Under the terms of the attached Order, Westinghouse cannot start up the WTR unless it has submitted a report describing the corrective

orig and cc re-typed in Gen Mgr's office

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steps taken to prevent recurrence of the incident and until the prior written approval of the Commission is obtained.

The Order also requires Westinghouse to submit plans for revision of the reactor containment. Pending Commission approval of the modification, Westinghouse would not be permitted to conduct any reduced coolant flow experiments and would not be able to operate the reactor above half power, i.e., 30 megawatts (thermal).

Sincerely yours,

SIGNED, A. R. NUEDECKE

General Manager

Drop from H St

Enclosure:
Facility License TR-2 (dup.)

- cc: Chairman (2)
- General Manager
- W. F. Finan, AGMRS
- Cong. Liaison (2)
- H. L. Price, DLR
- C. F. Eason, OGC
- D. Clark, IS
- R. W. Kirkman, NY

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The licensee's organization promptly recognized the potential of this incident and functioned effectively in coping with possible and actual aftereffects of the situation. As a result of the incident, the process water head tank became filled with radioactively contaminated water, and served as a temporary source of moderately high gamma radiation levels within a few hundred feet of the tank. Evacuation of the facility was accomplished in an expeditious manner. Radiation surveys of the surrounding area were instituted promptly. No personnel overexposures occurred and no offsite contamination was detected.

The licensee reports that the following action will be taken to prevent a recurrence of a similar incident:

1. None of the fuel elements in the reactor at the time of the incident will be recharged into the reactor.

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- 2. The licensee will inspect fuel elements at the supplier's facility prior to acceptance thereof.
- 3. Reactor operating procedure manuals will be reviewed and revised where indicated.

Should you desire additional information concerning this incident, please advise us.

Sincerely yours,

General Manager

cc: Chairman (2)
 General Manager
 W. F. Finan, AGMRS
 Cong. Liaison (2)
 H. L. Price, DLR
 C. F. Eason, OGC
 D. Clark, IS
 R. W. Kirkman, NY

Div. Concurrence:

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 Frame *Frame 6/10*
 Johnson *Johnson 6/10/60*

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DATE ▶	6-10-60							