

AUG 24 1973

UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

In the Matter of)
)
COMMONWEALTH EDISON CO.) Docket No. 50-237
)
(Dresden Nuclear Power Station,)
Unit No. 2))

ORDER FOR MODIFICATION OF LICENSE

I.

The Commonwealth Edison Co. ("the licensee") is the holder of Facility License DPR-19. License DPR-19 authorizes operation of the Dresden Nuclear Power Station, Unit No. 2 ("the plant") in Grundy County, Illinois. This license expressly provides, inter alia, that it is subject to all rules, regulations and orders of the Commission now or hereinafter in effect.

II.

On November 14, 1972, the AEC Regulatory Staff ("the Staff") issued a report entitled "Technical Report on Densification of Light Water Reactor Fuels" ("the Report"). By letter of November 20, 1972, the Staff requested the licensee to submit analyses and data specified in the report related to determining the consequences of fuel densification for normal operation of the plants, for operation of the plants during various maneuvers and transients, and under postulated accident situations, including the design basis loss-

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of-coolant accidents. On January 3, 1973, the licensee provided the requested information including, by reference, the General Electric Company Report NEDM-10735, "Densification Considerations in BWR Fuel Design and Performance" dated December, 1972. The Staff reviewed the licensee's submission as well as five additional supplements to NEDM-10735 which were submitted by the General Electric Company in response to requests for additional information from the Staff. The latest of these supplements was dated July, 1973. By letter of July 16, 1973, the Staff requested the licensee, inter alia, to furnish additional analyses regarding the calculated peak cladding temperatures during a postulated loss-of-coolant accident. On August 15, 1973, the licensee submitted the requested information including Supplement 6 to NEDM-10735.

On the basis of the Staff's review of the above identified submittals and its evaluation of fuel densification effects upon the operation of boiling water reactors which are reflected in a safety evaluation report relating to the plant dated August 24, 1973, the Staff has determined that changes in the operating conditions for the plant are necessary in order to assure that the calculated peak cladding temperature of the core of the plant following a postulated loss-of-coolant accident will not exceed 2300°F taking into account fuel densification effects as described in the Staff's safety evaluation identified above, and, therefore, that the Technical Specifications of License DPR-19

should be amended to require: (1) the immediate control of steady-state power operation so that the average linear heat generation of all the rods in any fuel assembly, as a function of planar exposure, at any axial location, shall not exceed the maximum average planar linear generation rate defined by the curve in Limiting Condition for Operation, figure 3.5.1, of section 3.5.I. of the attached Appendix I, attached hereto; and (2) that during steady state power operation, the linear heat generation rate (LHGR) of any rod in any fuel assembly at any axial location shall not exceed the maximum allowable LHGR as calculated using the equation for maximum LHGR provided in Limiting Condition for Operation, section 3.5.J. of the attached Appendix I.

III.

In view of the foregoing, the Director of Regulation finds that the public health, safety, and interest require that the following Order be made effective immediately. Pursuant to the Atomic Energy Act of 1954, as amended, the Commission's regulations in 10 CFR §§ 2.204 and 50.100 and the license condition noted in Part I above

IT IS ORDERED THAT:

The Technical Specifications of License DPR-19 are hereby changed, to include Limiting Conditions for Operation, sections

3.5.I. and 3.5.J., and Surveillance Requirements, sections 4.5.I. and 4.5.J. attached hereto as Appendix I and the plant shall be operated immediately in accordance therewith.

IV.

Within thirty (30) days from the date of publication of this notice in the Federal Register the licensee may file a request for a hearing with respect to this Order. Within the same thirty (30) day period any other person whose interest may be affected may file a request for a hearing with respect to this Order in accordance with the provisions of 10 CFR § 2.714 of the Commission's Rules of Practice. If a request for a hearing is filed within the time prescribed herein, the Commission will issue a notice of hearing or an appropriate order.

For further details pertinent to this Order see: the Staff Technical Report on Densification of Light Water Reactor Fuels, November 14, 1972; letter to B. Lee, Jr. from A. Giambusso, November 20, 1972; letter to A. Giambusso from L. D. Butterfield, Jr., January 3, 1973, with enclosure General Electric topical report, Densification Considerations in BWR Fuel Design and Performance; letter to B. Lee, Jr., from D. Zieman, with enclosure the Staff's GE Model for Fuel Densification, July 16, 1973; letter to D. Zieman from J. S. Abel, August 15, 1973; the Staff Technical Report of Densification of General Electric Reactor Fuels, August 23, 1973; the Staff Safety Evaluation of the Fuel Densification

Effects on the Dresden Nuclear Power Station, Unit 2, August 24, 1973; all of which are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C.

Copies of these documents may be obtained upon request addressed to the Deputy Director for Reactor Projects, Directorate of Licensing, U. S. Atomic Energy Commission, Washington, D. C. 20545.

FOR THE ATOMIC ENERGY COMMISSION

Director of Regulation

Dated at Bethesda, Maryland
this 24th day of August, 1973