

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Robert M. Lazo, Esq., Chairman
~~Dr. Emmeth A. Luebke, Member~~
Dr. Cadet H. Hand, Jr., Member

In the Matter of

DUKE POWER COMPANY

(William B. McGuire Nuclear
Station, Units 1 and 2)

: Docket Nos. 50-369-01
50-370-01

November 25, 1980

MEMORANDUM AND ORDER REGARDING
APPLICANT'S MOTION FOR SUMMARY DISPOSITION

On September 30, 1980, Duke Power Company (Applicant) filed "Applicant's Motion for Summary Disposition Regarding Application for License Authorizing Fuel Loading, Initial Criticality, Zero Power Physics Testing and Low-Power Testing for McGuire Unit 1; Request for Expedited Consideration" (hereafter "Motion for Summary Disposition"). In its Motion for Summary Disposition, Applicant moves the Atomic Safety and Licensing Board (the Board) for summary disposition with respect to issuance of a license authorizing fuel loading, initial criticality, zero power physics testing and low-power testing of Unit 1 of the William B. McGuire Nuclear Station. In support of its motion, Applicant has also filed "Applicant's Memorandum in Support of its Motion for Summary Disposition" and "Statement of Material Facts as to Which There Is No Genuine Issue To Be Heard". All three documents address the Carolina Environmental Study Group's (CESG) proposed

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contentions relating to excessive generation of hydrogen.^{1/}

Answers to Applicant's Motion for Summary Disposition were filed by the NRC Staff (Staff) and by CESH on November 7, 1980.^{2/}

In the view of the Staff, the affidavit of Norman Lauben, which the Staff attached to its answer, together with Applicant's motion and supporting documents, demonstrates that there is not a sufficient factual basis for CESH's proposed contentions and that there are no issues of fact worthy of adjudication at a hearing to consider the application for a license to authorize fuel loading and low-power testing for McGuire Unit 1.

^{1/}On June 9, 1980, CESH moved to reopen the record and add contentions regarding the possibility of excessive hydrogen generation resulting from a TMI-type accident. CESH revised its motion on August 15, 1980. See "CESH's Motions to Admit New Contentions and to Reopen the McGuire Operating License Hearing", dated June 9, 1980, and "CESH's Revised Motion to Reopen the Operating License Proceeding Motion; Motion to Deny Applicant's Request for Fuel Loading, Etc., Revised Contentions" dated August 15, 1980. As Applicant notes in its Motion for Summary Disposition, "such contentions are presently awaiting Board action as to their admissibility; the Board must also decide whether CESH has satisfied the reopening standards of the Commission." Applicant's Motion for Summary Disposition, at 1, 2.

^{2/}The original filing date for answers to Applicant's Motion for Summary Disposition was October 21, 1980. That date was extended by stipulation of all parties until October 28, 1980. Thereafter, during a telephone conference between the parties and the Board on October 28, 1980, the Board granted the request of the Staff and CESH for an extension of time until November 7, 1980, to file their answers to Applicant's Motion.

Accordingly, the Staff urges the Board to dismiss CESH's proposed contentions as a matter of law and to grant Applicant's Motion for Summary Disposition.

In its answer to Applicant's motion, CESH does not dispute paragraphs 1, 2, 3, 6, 7, 10, 11, 12 and 16 of Applicant's "Statement of Material Facts as to Which There Is No Genuine Issue To Be Heard". Thus, with respect to three of the four phases of activities requested in the low power operating license motion,^{3/} viz., fuel loading, initial criticality, and zero power physics testing, CESH does not dispute Applicant's statement that even in the unlikely event of a LOCA coupled with the complete failure or termination of the ECCS, the extremely small buildup of fission products resulting in little or no heat generation precludes excessive hydrogen generation. Accordingly, as a matter of law, Applicant is entitled to a favorable decision regarding the first three of the four phases of activities requested in its motion for a lower power operating license.

With regard to the low-power testing phase (i.e., up to five percent of full power), CESH has set forth specific facts showing that there is a genuine issue of fact. Specifically, it is accepted that there is a possibility (however remote) that hydrogen in quantities exceeding 10 CFR §50.44 design bases could be generated during low power testing (Affidavit

^{3/} See "Applicant's Motion for License Authorizing Fuel Loading, Initial Criticality, Zero Power Physics Testing and Low Power Testing" dated August 1, 1980.

of W. H. Rasin). For such hydrogen to be generated, there must be a LOCA, a failure or premature operator termination of the ECCS, and failure to restore cooling water to the reactor prior to generation of hydrogen (Id.).

Applicant maintains that (1) the ECCS will not fail if called upon to operate and (2) the ECCS will not be prematurely terminated by operator action. Further, Applicant maintains that even in the event of a LOCA, coupled with the failure of the ECCS, there is sufficient time to assure a flow of cooling water to the core prior to initiation of significant hydrogen generation.

CESG does not dispute Applicant's statement that there will be a minimum of one hour and five minutes (3900 seconds) until hydrogen generation begins after a postulated LOCA absent ECCS operation (Affidavit of W. H. Rasin). However, CESG controverts the fact that operators will within such time easily be able to restore sufficient flow of water to the core to prevent uncovering of the core and potential hydrogen generation and asserts that electrical power for pump operation will not necessarily be available. In that event, according to CESG, the containment would be filled with hydrogen at the four percent level (the lower limit for self-propagating combustion) approximately 18 hours after the onset of the LOCA (Affidavit of Jesse L. Riley). In view of the above, the Board cannot rule as a matter of law that no genuine issue of material fact exists with respect to whether excessive amounts of hydrogen will be generated during low-power operations.

Conclusion and Order

Pursuant to the Commission regulation 10 CFR 2.749, the Board concludes on the basis of the record in the proceeding that so far as the activities regarding (1) fuel loading, (2) initial criticality, and (3) zero power physics testing are concerned, there is no genuine issue of any material fact and that Applicant is entitled as a matter of law to a decision granting its motion for summary disposition as to these three phases of the activities for which a license is requested. Accordingly, it is hereby ordered that Applicant's motion for summary disposition is granted in part so as to permit the Commission, if it desires, to issue a license authorizing fuel loading, initial criticality and zero power physics testing of McGuire Unit 1.

The Board believes that it has been clearly demonstrated that there is a genuine issue as to material facts regarding the issue of hydrogen generation sought to be adjudicated by CESC with respect to the application for a license authorizing low power testing at a maximum of five percent of full power. McGuire is a thin-shelled reactor, and the hydrogen issue is related to the pressure capability of the containment structure. The Board is of the opinion that current studies by the Applicant and by the NRC on this topic relate to CESC's concerns. We will hear evidence on this issue. Applicant's motion for summary disposition regarding low power testing is denied.

The parties are directed to confer regarding a proposed schedule leading to the commencement of an evidentiary hearing on the issue of the generation

of excessive amounts of hydrogen during low power testing operations and to submit such proposed schedule to the Board by December 15, 1980.

In its November 7, 1980, reply to Applicant's motion for summary disposition, CESH has advanced two additional contentions (Contentions 5 and 6). Applicant and Staff are directed to respond to CESH's proposed further contentions by December 15, 1980.:

It is so ORDERED.

FOR THE ATOMIC SAFETY AND
LICENSING BOARD.

Robert M. Lazo
Robert M. Lazo, Chairman

Dated at Bethesda, Maryland,
this 25th day of November, 1980.

TABLE OF AUTHORITIES CITED

<u>Cases</u>	<u>Page(s)</u>
<u>Carolina Environmental Study Group v. United States</u> , 510 F.2d 796 (D.C. Cir. 1975)	24
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<u>Philadelphia Electric Company</u> , ALAB-562, 10 NRC 437 (1979)	6
<u>Public Service Company of New Hampshire</u> (Seabrook Station, Units 1 and 2), CLI-80-33, _____ NRC CCH. Nuc. Reg. Rep. ¶ 30, 533 (September 25, 1980) . . .	12
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