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AUTH. NAME AUTHOR AFFILIATION
ALEXICH, M. P. Indiana & Michigan Electric Co.
RECIP. NAME RECIPIENT AFFILIATION
DENTON, H. R. Office of Nuclear Reactor Regulation, Director (post 851125

SUBJECT: Application for amends to Licenses DPR-58 & DPR-74, deleting Tech Spec requirement for operable spray additive sys. Rev will not result in significant change in types of effluents released, per Westinghouse evaluation. Fee paid.
SEE SUBJECT FILES FOR ENCLOSURES

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INDIANA & MICHIGAN ELECTRIC COMPANY

P.O. BOX 16631
COLUMBUS, OHIO 43216

February 28, 1986
AEP:NRC:0914C

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
APPLICATION FOR DELETION OF SPRAY ADDITIVE TANK
TECHNICAL SPECIFICATION CHANGE REQUEST

Mr. Harold R. Denton, Director
Office Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Denton:

In our letter of May 31, 1985 (AEP:NRC:0914B), we advised you that we were evaluating the feasibility of removing the requirement for the sodium hydroxide (NaOH) spray additive in lieu of supplying the additional information requested in your November 26, 1984 letter. At that time, it was estimated that the evaluation would be completed and a Technical Specification request submitted by December 31, 1985. Mr. Varga's letter of July 18, 1985 stated that this approach was acceptable. In a subsequent conversation with your staff, the date for submittal of the Technical Specification change was extended due to a delay in completing and reviewing the analysis.

The analysis has been completed, and this letter and its attachments constitute an application for amendment to the Technical Specifications for the Donald C. Cook Nuclear Plant Unit Nos. 1 and 2. Specifically, we request the deletion of the requirement for an operable spray additive system. The reasons for the proposed changes and our analyses concerning significant hazards considerations are contained in Attachment 1 to this letter. This report and the other attachments to this letter are as follows:

Attachment 1. WCAP 11020 (Proprietary), "Spray Additive Tank Deletion Analysis for the Donald C. Cook Nuclear Plant, Units 1 and 2," dated December 1985.

Attachment 2. WCAP 11021 (Non-Proprietary), "Spray Additive Tank Deletion Analysis for the Donald C. Cook Nuclear Plant, Units 1 and 2," dated December 1985.

Attachment 3. Revised Technical Specification Pages.

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Attachment 4. Westinghouse Application for the Withholding of Proprietary Information from Public Disclosure, CAW-85-090.

Attachment 5. Proprietary Information Notice.

We have had our consultant, Westinghouse Electric Corporation, evaluate the consequences of removing the spray additive tank. The effect of removing this tank, which serves as a source of sodium hydroxide for the containment sprays, is to lower the pH of the containment spray and the water which accumulates in the sump. The effects of lowering pH value on iodine removal, corrosion of materials, and stress corrosion of stainless steel were evaluated by Westinghouse Electric Corporation, using, where applicable, new data and methodologies which have been developed since the D. C. Cook FSAR was originally prepared.

Based on the above-noted evaluation, Westinghouse has concluded that there will be no detrimental effects in removing the requirement for the spray additive tank. The pH of the sump solution resulting from the mixing of the borated water used for emergency cooling and the melting ice in the ice condenser will be within the range of 7 to 9.5. In this range, there will be no significant increase in either hydrogen generation or stress corrosion of stainless steel.

We have reviewed the above Westinghouse report and found their conclusion to be acceptable. During this review, we found that references to FSAR Chapter 14 tables did not identify the applicable unit. Most data were obtained from the Unit 2 section of the Chapter 14 accident analysis. These data are also applicable to Unit 1. We also discovered what is apparently a typographical error in the FSAR regarding unsprayed volume in containment. This error, which does not affect the results of the analysis, will be corrected in a subsequent FSAR update.

Using new, more mechanistic evaluation of iodine removal in containment, offsite doses and control room doses have been calculated using the containment leak rate specified in the Donald C. Cook Plant FSAR. The evaluation shows that the estimated 2-hour site boundary dose is slightly reduced from the value presently contained in the FSAR. Furthermore, the estimated 30-day dose in the low-population zone is significantly lower than that previously estimated. The 30-day dose for the control room is also within established guidelines.

Based on the Westinghouse evaluation and our initial review of that evaluation, we believe that the proposed change will not result in (1) a significant change in the types of effluents or a significant increase in the amounts of any effluents that may be released offsite, or (2) a significant increase in individual or cumulative occupational radiation exposure.

Although the change may result in an increase in the probability of occurrence or consequences of a previously analyzed accident, based on the Westinghouse analysis we believe the results to be clearly within limits established in 10 CFR 100. Thus, we believe the changes do not involve significant hazards consideration as defined in 10 CFR 50.92.

As this submittal contains information proprietary to Westinghouse Electric Corporation, it is supported by an affidavit signed by Westinghouse, the owners of the information. The affidavit sets forth the basis on which the information may be withheld from public disclosure by the Commission and specifically addresses the considerations listed in paragraph (b)(4) of Section 2.790 of the Commission's regulations.

It is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.790. Correspondence regarding the proprietary aspects of the Application for Withholding or the supporting Westinghouse affidavits should reference CAW-85-090 and should be addressed to R. A. Wiesemann, Manager, Regulatory and Legislative Affairs, Westinghouse Electric Corporation, P.O. Box 355, Pittsburgh, Pennsylvania 15230.

These proposed changes have been reviewed by the Plant Nuclear Safety Review Committee (PNSRC) and will be reviewed by the Nuclear Safety and Design Review Committee (NSDRC) at their next regular scheduled meeting. Should the results of their review require revisions to the letter, we will inform you.

In compliance with the requirements of 10 CFR 50.91(b)(1), copies of this letter and its non-proprietary attachments will be transmitted to Mr. R. C. Callen of the Michigan Public Service Commission and Mr. G. Bruchmann of the Michigan Department of Public Health.

Pursuant to 10 CFR 170.12(c), we have enclosed an application fee of $150.00 for the proposed amendment.

This document has been prepared following Corporate procedures which incorporate a reasonable set of controls to insure its accuracy and completeness prior to signature by the undersigned.

Very truly yours,

M. P. Alexich
Vice President

cm

Enclosures

cc: John E. Dolan
W. G. Smith, Jr. - Bridgman
R. C. Callen
G. Bruchmann
G. Charnoff
NRC Resident Inspector - Bridgman

Attachment 1 to AEP:NRC:0914C

Proprietary Version of Safety
Evaluation Supporting Proposed
Technical Specification Change
Associated with the Spray Additive System

Attachment 2 to AEP:NRC:0914C

Non-Proprietary Version of Safety
Evaluation Supporting Proposed
Technical Specification Change
Associated with the Spray
Additive System