UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD NECE THE STATE OF THE STA

In the Matter of

CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL.

(Perry Nuclear Power Plant, Units 1 and 2)

'84 SEP 10 P12:12

Docket No. 50-440 OL 50-441 OL

NRC STAFF RESPONSE TO BOARD REQUEST FOR INFORMATION REGARDING THE NEW ATWS RULE

INTRODUCTION

The Board has requested the parties to provide their views on the interpretation of the words "designed and built" in the newly issued regulation, 10 CFR § $50.62(c)(4)^{1/2}$ (the new ATWS rule), especially regarding the Perry Nuclear Power Plant. The Staff hereby submits its views.

II. BACKGROUND

The new ATWS rule requires an automatic standby liquid control system (SLCS) for plants which are granted construction permits (CP) after July 26, 1984 unless an automatic system has already been designed

[&]quot;Requirements for reduction of risk from anticipated transients without scram (ATWS) events for light-water-cooled nuclear power plants." This rule was published in the Federal Register on June 26, 1984. 49 Fed. Reg. 26036-45.

and built in plants with CP's issued prior to that date. 2/ Plants granted construction permits prior to July 26, 1984 are not required to install an automatic SLCS and may use manual initiation. However, the new rule indicates that an automatic SLCS already designed and built at a plant with a pre-July 1984 CP must be retained and implemented. Thus, it is clear that if the Perry plant, for which a construction permit was granted in 1977, does not have an automatic SLCS already designed and built, an automatic system is not required by the new rule. Conversely, if an automatic system has been designed and built at Perry, it must be retained and implemented at the time of plant operation. The question raised by the new rule is the meaning of "designed and built" as applied to the Perry plant SLCS design and construction. 3/

^{2/ 10} CFR § 50.62(c)(4) states

⁽⁴⁾ Each boiling water reactor must have a standby liquid control system (SLCS) with a minimum flow capacity and boron content equivalent in control capacity to 86 gallons per minute of 13 weight percent sodium pentaborate solution. The SLCS and its injection location must be designed to perform its function in a reliable manner. The SLCS initiation must be automatic and must be designed to perform its function in a reliable manner for plants granted a construction permit after July 26, 1984, and for plants granted a construction permit prior to July 26, 1984, that have already been designed and built to include this feature.

This question arose in connection with a July 6, 1984 motion for summary disposition filed by Ohio Citizens for Responsible Energy (OCRE) who claimed that the new ATWS rule requires the Applicants to install an automatic SLCS as stated in OCRE's Issue #6. Staff and Applicants' responses opposed OCRE's interpretation.

III. DISCUSSION

The Staff reviewers in the Reactor Systems Branch, Office of Nuclear Reactor Regulation, view the SLCS as having been "designed" when the final design documentation necessary to enable construction of a complete SLCS with a clear indication of the method of initiation exists. (Affidavit of George Thomas, ¶ 4). As explained by Mr. Thomas, system designs are often modified or changed during plant construction, so that the NRC Staff views the actual system design to be that most recently submitted. (Affidavit of George Thomas, ¶ 5).

The Staff's view of the meaning of the word "built" as used in the new ATWS rule is that the SLCS is "built" when there has been physical installation of hardware for the SLCS to the extent that construction of the SLCS is substantially complete. (Affidavit of George Thomas, ¶ 4).

Briefly summarized, the Staff views the SLCS to be "designed and built" when physical installation of the system is substantially complete in accord with the most recent design submitted to NRC, which enables complete construction.

The Staff has investigated the design and construction of the Perry SLCS as attested in the attached affidavits by Mr. Thomas of the Reactor Systems Branch, NRR and Mr. Grobe, the NRC resident inspector at the Perry plant. Mr. Thomas reviewed the information provided by the Applicants in August 1982 and February 1983, as well as section 15.8 of the Perry FSAR, and the description of the manual initiation SLCS in the SSER #3 and has concluded that, although an option of automatic initiation was initially provided, the most recent Perry SLCS design indicates only manual initiation. (Affidavit of George Thomas ¶¶ 5, 6).

Mr. Grobe has inspected the documents at the plant site as well as the SLCS installed at the plant and has concluded that the current system design utilizes only manual initiation. (Affidavit of John Grobe, ¶ 4). In explanation of this conclusion, Mr. Grobe attests that he reviewed documents at the plant referenced in his affidavit, showing the SLCS design development since 1977, the most recent of which, dated late 1983 and early 1984, indicate manual initiation logic. (Affidavit of John Grobe, ¶ 4(a)-(s)). Mr. Grobe also describes his recent inspection of the SLCS installed at Perry which he found to be essentially complete and scheduled for preoperational testing in late 1984. (Affidavit of John Grobe, ¶ 5). In addition, he describes three cables installed which could have supported automatic initiation, and the considerable changes and additions to the installed system which would be necessary to convert it to an automatic SLCS (Affidavit of John Grobe, ¶ 6). Finally, based upon his inspections of documents and plant, Mr. Grobe attests that in his opinion the Perry SLCS is designed and built for only manual initiation. (Affidavit of John Grobe, ¶ 7).

In summary of the explanations provided above, the Staff views the SLCS to be "designed and built" as provided in the new ATWS rule (a) when the necessary design documentation most recently submitted to NRC would enable construction of a complete SLCS with clear indication of the type of initiation, and (b) physical installation of hardware has occurred to the extent that construction of the SLCS is substantially complete. With this definition, the Staff views the Perry SLCS as one which has <u>not</u> "already been designed and built" to include automatic initiation but, rather, as one designed and built for manual initiation.

IV. CONCLUSION

In the Staff's opinion, the SLCS at the Perry plant is not designed and built for automatic initiation, but for manual initiation, according to the descriptive terms "designed and built" contained in 10 CFR $\frac{1}{2}$ 50.62(c)(4).

Respectfully submitted,

Colleen P. Woodhead Counsel for NRC Staff

Dated at Bethesda, Maryland this 7th day of September, 1984

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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF RESPONSE TO BOARD REQUEST FOR INFORMATION REGARDING THE NEW ATWS RULE" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk, by deposit in the Nuclear Regulatory Commission's internal mail system, this 7th day of September, 1984:

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