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February 11, 1985

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	)	
	)	
THE CLEVELAND ELECTRIC	)	Docket Nos. 50-440 OL
ILLUMINATING CO. ET AL.	)	50-441 OL
	)	
(Perry Nuclear Power Plant,	)	
Units 1 and 2)	)	

OCRE RESPONSE TO APPLICANTS' MOTION FOR SUMMARY DISPOSITION OF ISSUE 15

I. INTRODUCTION

On February 5, 1985, Applicants moved for summary disposition of Issue #15, which states:

> Applicant has not yet demonstrated that it is prepared to prevent, discover, assess and mitigate the effects of steam erosion on components of the Perry Nuclear Power Plant that will be subjected to steam flow.

Applicants base their motion on the incorporation of certain design features to minimize steam erosion in certain systems, their periodic inspection program, and their steam erosion hazards analysis.

OCRE believes that this issue can be narrowed to whether the Unit 1 extraction steam system (N36), should be replaced with the same erosion-resistant material used in the Unit 2 N36 system. For the reasons outlined below, OCRE urges that Applicant's motion be denied.

II. STANDARDS FOR SUMMARY DISPOSITION

The burden of proof lies upon the movant for summary disposition, who must demonstrate that no genuine issues of

material fact exist. In fact, the record and pleadings must be viewed in the light most favorable to the opponents of summary disposition. Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), LBP-74-36, 7 AEC 877 (1974).

In an operating license proceeding, where significant health and safety or environmental issues are involved, a Licensing Board should grant a motion for summary disposition only if it is convinced that the public health and safety or the environment will be satisfactorily protected. Cincinnati Gas and Electric (Wm. H. Zimmer Nuclear Station), LBP-81-2, 13 NRC 36, 40-41 (1981).

It is improper to grant summary disposition of a safety issue before the issuance of the Staff's SER on that issue. Duke Power Co. (Wm. B. McGuire Nuclear Station, Units 1 and 2), LBP-77-20, 5 NRC 680 (1977).

It is axiomatic, of course, that Applicants meet all of the Commission's regulations. Summary disposition is clearly inappropriate when Applicants have failed to meet one of the Commission's regulations.

Applicants' motion fails on the latter point. As discussed below, Applicants have failed to evaluate the effects of steam erosion hazards on occupational radiation doses, and thus have failed to ensure that such radiation exposure will be kept ALARA.

III. DISCUSSION

Applicants admit that the N36 system (extraction steam) has

a potential for significant erosion-corrosion. Pender affidavit at 12. In fact, the potential for steam erosion in this system is so great that Applicants in 1977 replaced the piping which appeared especially vulnerable to steam erosion in Unit 2 with erosion-resistant material. Pender affidavit at 12, fn. 3, and Applicants' answer to OCRE Interrogatory 9-44 (March 8, 1983). However, the same piping in Unit 1 was not replaced, because such a change was deemed impractical as the piping was being installed at that time. Id.

Applicants essentially admit that repair or replacement of the N36 piping because of erosion-corrosion will be necessary eventually. See Applicants' answer to OCRE Interrogatory 9-46. Any repair or replacement of this system will result in radiation exposure to the persons performing this work. According to FSAR Table 12.3-1 and Figures 12.3-1 through 12.3-11, maximum radiation levels during shutdown in the turbine building and heater bay, where the N36 system is located, range from 2.5 to 25 millirems per hour.

10 CFR 20.1(c) requires nuclear power licensees to "make every reasonable effort to maintain radiation exposures . . . as low as is reasonably acheivable." Applicants failed to meet this standard. It is utterly unreasonable to provide a greater level of protection in occupational dose control in Unit 2 than in Unit 1, when Unit 2 will probably never operate.

The word "practical" in most senses means that which is possible or capable of being done. Applicants never claimed

that replacement of Unit 1 N36 piping was impossible; indeed, it could not be impossible if replacement at a later time is comtemplated due to the effects of steam erosion.

It is certainly more reasonable to plan for keeping occupational radiation doses ALARA in the design of a nuclear facility by using a material that is more resistant to erosion-corrosion, thereby avoiding the need for later repair or replacement of contaminated, radioactive piping. Applicants have violated the ALARA concept, and 10 CFR 20.1(c).

IV. CONCLUSION

Applicants have failed to consider the effects of steam erosion on occupational radiation doses in that the Unit 1 N36 system is fabricated of an erosion-susceptible material which will require replacement eventually. These radiation doses, and the resultant adverse health effects, are entirely avoidable by using the same erosion-resistant material as is installed in Unit 2. Applicants have thus violated 10 CFR 20.1(c).

For the foregoing reasons, Applicants motion for summary disposition of Issue #15 must be denied.

Respectfully submitted,

Susan L. Hiatt

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OCRE Representative

STATEMENT OF MATERIAL FACTS AS TO WHICH A GENUINE ISSUE OF FACT EXISTS

1. Issue #15 in this proceeding states that:

> Applicant has not yet demonstrated that it is prepared to prevent, discover, assess and mitigate the effects of sream erosion on components of the Perry Nuclear Power Plant that will be subjected to steam flow.

2. Applicants are still not prepared to prevent steam erosion in the Unit 1 extraction steam (N36) system; the piping in this system, identified as vulnerable by Applicants was replaced with a more erosion-resistant material in Unit 2, but not in Unit 1.

3. Eventually portions of the Unit 1 N36 piping will have to be repaired or replaced because of the effects of steam erosion.

4. This repair or replacement will result in radiation exposure to persons performing the work, as FSAR analyses indicate that maximum radiation levels during shutdown in the turbine building and heater bay, where the N36 piping is located, range from 2.5 to 25 mRem/hour.

5. 10 CFR 20.1(c) requires NRC licensees to make every reasonable effort to keep radiation exposures ALARA.

6. Radiation exposures and attendant adverse health effects could be avoided if the Unit 1 N36 piping susceptible to steam erosion were replaced with the more erosion-resistant material used on Unit 2.

CERTIFICATE OF SERVICE

This is to certify that copies of the foregoing were served by deposit in the U.S. Mail, first class, postage prepaid, this 11th day of February, 1985 to those on the service list below.

Susan L. Hiatt

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