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USNRC

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

82 SEP -1 A10:50

Before the Atomic Safety and Licensing

OFFICE OF SECRETARY
OPERATING & SERVICE
BRANCH

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In the Matter of)

CLEVELAND ELECTRIC ILLUMINATING)
COMPANY, et al.)

(Perry Nuclear Power Plant,)
Units 1 and 2))

Docket Nos. 50-440
50-441
(OL)

OHIO CITIZENS FOR RESPONSIBLE ENERGY
FOURTH SET OF INTERROGATORIES TO NRC STAFF

Ohio Citizens for Responsible Energy ("OCRE") hereby propounds its fourth set of interrogatories to the NRC Staff, pursuant to the Licensing Board's Memorandum and Order of July 28, 1981 (LBP-81-24, 14 NRC 175).

Issue #5

Statement of Purpose: The following interrogatories pertaining to Issue #5 are designed to determine the Staff's assessment of the potential at PNPP for the type of accident described in NUREG-0785 and to determine the Staff's regulatory position on this problem.

- 4-1. Has the PNPP SDV design met all the criteria and recommendations of IE Bulletins 80-14 and 80-17 (and supplements), the 8/1/80 letter from Michelson (AEOD) to H. Denton (NRR), and Section 4 of the BWR Scram Discharge System Safety Evaluation, dated 12/1/80? Describe in detail any criteria not met, and indicate why these deviations are permissible.

- 4-2. In the Staff's opinion, could suppression pool swell hydrodynamic loading on the SDV, SDIV, or HCU and associated piping cause pipe breaks or any other damage to these components? Could pool swell disrupt instrumentation in the SDIV or valves in the HCU, thereby impairing the scram function?
- 4-3. Would water from an SDV pipe break flashing to steam pressurize the containment? Would this condition harm any equipment located in the containment which was not qualified for this condition?
- 4-4. In the Staff's opinion, does the long common vent line for both banks of the PNPP SDV have the potential for degrading SDV performance, as identified in IE Bulletin 80-17, Supplement 1?

Issue #9

Statement of Purpose: The following interrogatories concerning Issue #9 are designed to ascertain the Staff's regulatory position on radiation dose-rate effects on polymer degradation and to determine the degree to which polymer degradation has been a problem at operating plants.

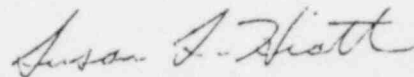
- 4-5. When will the final rule on environmental qualification of electrical equipment be published?
- 4-6. Will PNPP, Units 1 and 2, be required to comply with the provisions of 10 CFR 50.49 when it is published? If not, why not? If so, give the time schedule for compliance.
- 4-7. Explain why the requirement for realistic dose-rate testing (for normal operating conditions) was deleted

- in the final version of 10 CFR 50.49(e)(4).
- 4-8. Will the testing of synergistic effects required by 10 CFR 50.49(e)(7) include the sequential factors identified in NUREG/CR-2156?
 - 4-9. Does the Staff intend to promulgate a rule on environmental qualification of mechanical equipment? If so, when? When would PNPP have to comply with any such rule?
 - 4-10. Produce NUREG-0588, Regulatory Guide 1.89, and any other documents on environmental qualification of equipment pertaining to a radiation environment.
 - 4-11. Produce any and all documents pertaining to the Perry environmental qualification program for electrical and mechanical equipment.
 - 4-12. In the Staff's opinion, could the failures of GE Type HFA Relays described in IE Information Notice 82-13 have been caused by radiation-induced embrittlement of polymers used therein?
 - 4-13. Where were the cables "in service in a nuclear application . . . and found to exhibit substantial deterioration" (NUREG/CR-2156 at 8) used? I.e., in a commercial nuclear power plant? Give the name of the facility.
 - 4-14. Has any polymer degradation been reported in any commercial nuclear power plants? If so, provide all details.
 - 4-15. Has further research been conducted on dose-rate and synergistic effects on polymer degradation by Sandia Laboratories (or others)? If so, provide details of the research.
 - 4-16. Identify all documents (NRC and others) in which dose-rate

and synergistic effects on polymer degradation are described.

- 4-17. Has research been conducted on dose-rate and synergistic effects on polymers other than those identified in NUREG/CR-2156 and NUREG/CR-2157 (polyethylene, polyvinyl chloride, polyolefin, ethylene propylene rubber, chlorosulfonated polyethylene, and chloroprene rubber)? If so, with what results?

Respectfully submitted,



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CERTIFICATE OF SERVICE

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This is to certify that copies of the foregoing OHIO CITIZENS FOR RESPONSIBLE ENERGY FOURTH SET OF INTERROGATORIES TO NRC STAFF were served by deposit in the U.S. Mail, first class postage prepaid, this 30th day of August, 1982 to those on the service list below.

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