UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	
CLEVELAND ELECTRIC ILLUMINATING COMPANY, Et Al.	Docket Nos. 50-440 50-441
(Perry Nuclear Power Plant, Units 1 and 2)	(Operating License)

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

Ohio Citizens for Responsible Energy ("OCRE") hereby propounds its third 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 (1981)).

Statement of Purpose

The following interrogatories are designed to determine the Staff's assessment of the potential at PNPP for the type of accident described in NUREG-0785 resulting from a pipe break to the scram discharge volume and to determine the Staff's regulatory position on this problem.

Interrogatories

3-1. Does the so-called "hydraulic" solution or fix to the BWR ATWS problem involve any modification of the SDV system? If so, describe in detail these modifications as they would be required for PNPP.

3-2. Does the NRC require temperature, humidity, or radiation monitors/detectors at or near the SDV to detect breaks in the SDV or SDIV?

3-3. Has the Staff submitted any guidelines or rules requiring

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break detection instruments as described in 3-2 above?

3-4. Has there ever been an SDV pipe break recorded by the NRC? If so, give salient details.

3-5. What emergency operating procedures will the NRC require the Applicants to have available in the control room to use in the event of an SDV pipe break?

3-6. Does the NRC require training of reactor operators on responding to SDV pipe breaks? If so, describe such training requirements.

3-7. Does the Staff currently believe that the isolation of the SDV system can be assured in the PNPP design as is? What modifications, if any, would be needed to assure such isolation?

3-8. What arethe Staff's estimates of the maximum flow rate through an SDV pipe break in the Perry design?

3-9. Would water lost through the SDV in a break become available for subsequent cooling purposes? If so, indicate the flow path; i.e., from what point to what point would the coolant ultimately pass?

3-10. If the response to 3-9 above is in the affirmative, does the rationale include the possibility of that water steaming (flashing) at the break point?

3-11. Has the Staff required any modification of the SDV design for Applicants' plant? If so, enumerate and explain any such modifications.

3-12. Has the Staff required any changes in the metallurgy of the SDV system for PNPP? If so, describe in detail.

3-13. Will the Applicants be required to perform a fatigue analysis on the Perry SDV system? If so, explain the

extent of such requirements.

3-14. Does the Staff intend to hold the Applicants to GDC 54 and 55 of Appendix A to 10 CFR Part 50 with regard to isolation valves within the SDV system? If not, why not?

3-15. Has the Staff established any surveillance requirements on the SDV system at PNPP? If so, produce those requirements.

3-16. Relevant to 3-15 above, will any surveillance include radiography? If so, please elaborate.

3-17. Has the Staff accepted the recommendations of C. Michelson of the NRC AEOD that operability of the hi-level scram be independent of the SDV venting or draining requirements? (See 8/1/80 letter from Michelson to H. Denton, Office of NRR, NRC.)

3-18. Is pipe whip a design consideration for SDV piping design? If so, to what extent?

3-19. In the Staff's opinion, did the suspected act of vandalism described in PNO-81-109 cause any irreparable harm to the SDV system that could lead to scram failure or to a pipe break in the SDV piping?

3-20. In the Staff's opinion, could the deficiency in the stress analysis for the CRD hydraulic system described in the March 11, 1982 letter from D. Davidson of CEI to J. Keppler of NRC Region III (water hammer loads from scram valve operation) lead to a break in the SDV piping? Are the modifications proposed by the Applicants in said letter sufficient to preclude this?

3-21. In the Staff's opinion, could the concerns described in the 3-29-82 letter from A. Schwencer, Division of Licensing, NRC, to D. Davidson, CEI, re "Fast Scram" Hydrodynamic Loads on Control Rod Drive Systems, lead to a pipe break in the SDV system?

Respectfully submitted,

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RELATED CORRESPONDENCE

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CERTIFICATE OF SERVICE

This is to certify that copies of OCRE's SECOND SET OF INTERROGATORIES TO APPLICANTS and THIRD SET OF INTERROGATORIES TO NRC STAFF were served by deposit in the U.S. Mail, first class, postage prepaid, this 29th day of April, 1982 to those on the Service List below.

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