

November 1, 1982 <sup>DOCKETED</sup> <sub>USNRC</sub>

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

Before the Atomic Safety and Licensing Board

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

APPLICANTS' SUPPLEMENTAL ANSWER  
PURSUANT TO ORDER OF OCTOBER 19, 1982  
(CONCERNING A MOTION TO COMPEL ANSWERS  
ABOUT EMERGENCY PLANNING)

By Order of October 19, 1982, the Licensing Board gave Applicants the option of answering Interrogatory #56 of Sunflower Alliance, Inc. et al. ("Sunflower") Second Set of Interrogatories, dated April 30, 1982, or stipulating that they will not claim credit as part of their potasssium iodide defense for any iodine mitigation devices. In light of the regulatory developments cited by the Licensing Board in its Order, at 2-3, Applicants are unwilling at this time to file such a stipulation. Accordingly, Applicants will answer the Interrogatory. Applicants do not, however, wish their answer to be construed to mean that they will not file a stipulation in the future if such is deemed appropriate.

56. NCRP Report No. 55 at pp. 16-17 indicates that engineered safeguards at reactors may reduce the release of radioiodine during a nuclear accident. For each safeguard listed therein (and below), describe the system, if any, that will be in place at PNPP, explain how the system works to reduce iodine release, and indicate how efficient said system is at reducing radioiodine levels.

- (1) various methods for condensing the radioiodine-bearing steam that would be released to the reactor building.
- (2) enclosing the reactor in a sealed containment structure.
- (3) recirculating the contained atmosphere through absorbents and filters that remove radioiodines.
- (4) operation of sprays containing chemicals capable of absorbing the radioiodines and reducing their concentration in the atmosphere of the containment building.

Response:

(1) Radioiodine Steam Condensation: The two safeguard systems that will condense radioiodine-bearing steam discharged from the reactor vessel are the suppression pool and the containment sprays. A description of these systems and their condensation capabilities is contained in PNPP FSAR §6.2.2. Applicants do not have data on the efficiency of these systems at reducing overall radioiodine levels.

(2) Sealed Containment Structure: A description of the containment structure for PNPP is contained in PNPP FSAR §3.8. The containment barriers to iodine release include the reactor

pressure vessel, the drywell, and the steel containment. Iodine isotopes would have to pass through each barrier in turn before release outside the sealed containment would be possible. This multiple barrier system slows the migration of iodine isotopes and permits radioactive decay of the isotopes within the sealed containment. The efficiency of iodine removal varies with the particular iodine isotope. However, all leakage from the sealed containment is processed through the Annulus Exhaust Gas Treatment System described in part (3) below.

(3) Filtration of Recirculated Containment Atmosphere:

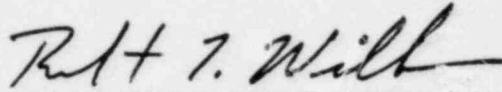
While this safeguard system is typical for pressurized water reactors, it is not a design feature incorporated in boiling water reactors, and, therefore, is not included in the PNPP ventilation design. However, leakage from the PNPP containment to the secondary containment is treated by a highly efficient iodine filtration system, the Annulus Exhaust Gas Removal System. A system description, how it reduces iodine release, and its removal efficiency are contained in PNPP FSAR §6.5.

(4) Containment Spray System Chemical Additive: The containment spray system does not incorporate the capability for injecting chemical additives; nor do Applicants believe chemical additives to be necessary in light of the engineered safeguards installed at PNPP.

Respectfully submitted,

SHAW, PITTMAN, POTTS & TROWBRIDGE

By:



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Dated: November 1, 1982

CLEVELAND ELECTRIC ILLUMINATING COMPANY

CLEVELAND, OHIO

AFFIDAVIT

Frank R. Stead, being duly sworn according to law, deposed and says that he is Manager, Nuclear Engineering Department, The Cleveland Electric Illuminating Company, and that the facts set forth in the foregoing Applicants' Answer to Sunflower Alliance Inc., et. al. Second Set of Interrogatories #56, dated April 30, 1982, is true and correct to the best of his knowledge, information and belief.

Frank R Stead

Sworn to and subscribed

before me this 28<sup>th</sup> day

of October, 1982.

Caroline M. Wilde

CAROLINE M. WILDE

Notary Public, State of Ohio

My Commission Expires April 17, 1985

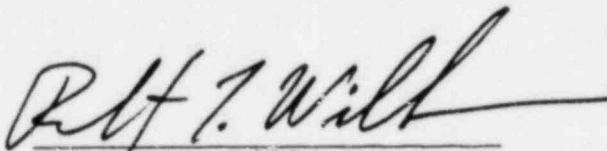
(Recorded in Lake County)

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CERTIFICATE OF SERVICE

This is to certify that copies of the foregoing "Applicants' Supplemental Answer Pursuant to Order of October 19, 1982 (Concerning a Motion to Compel Answers About Emergency Planning)," were served by deposit in the U.S. Mail, First Class, postage prepaid, this 1st day of November, 1982, to all those on the attached Service List.

  
Robert L. Willmore

Dated: November 1, 1982

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