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POWER AUTHORITY OF THE STATE OF NEW YORK
10 COLUMBUS CIRCLE, NEW YORK, N.Y. 10019

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CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
4 IRVING PLACE, NEW YORK, N.Y. 10003

OFFICE OF SECRETARY DOCKETING & SERVICE BRANCH

April 1, 1983

James P. Gleason, Chairman
Honorable Frederick J. Shon
Honorable Oscar H. Paris
Administrative Law Judges
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: In re Consolidated Edison Co. of New York, Inc. & Power Authority of the State of New York (Indian Point, Units 2 and 3), Nos. 50-247 SP, -286 SP

Dear Judges Gleason, Shon, and Paris:

Enclosed is an Errata Sheet for Licensees' Testimony of Dennis C. Bley, Donald F. Paddleford, Thomas E. Potter, and Dennis C. Richardson on Commission Question Five.

Sincerely,

Brent L. Brandenburg
Assistant General Counsel
Consolidated Edison Company
of New York, Inc.

Paul F. Colarulli
Morgan Associates, Chartered
Counsel for the Power Authority
of the State of New York

cc: Official Service List

Enclosure
PFC:BLB/pat

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ERRATA SHEET

Page 6, line 13, vicinity should read "vicinity".

Page 8, line 3, "external events," should read "external events.".

Page 10, line 16, "Early fatality" should read "Early Fatal".

A revised page 11 is enclosed.

TABLE 2

RESULTS OF EXISTING PROBABILISTIC RISK ASSESSMENTS

*** WARNING - THERE ARE LARGE UNCERTAINTIES ASSOCIATED WITH THE VALUES PRESENTED IN THIS TABLE. ALSO, PRAs WERE NOT PERFORMED USING CONSISTENT METHODOLOGY AND ASSUMPTIONS

	PRA	NSSS/AE	DATE	POWER (MWe)	F CORE MELT [1/ 2/]	F MAJOR RELEASE [1/ 3/]	INDIVIDUAL RISK WITHIN 1 MILE: EARLY FATAL [1/ 4/]	INDIVIDUAL RISK WITHIN 1 MILE: CANCER FATAL [1/ 5/]	COMMENTS
ANO-1	IREP	B&W/BECHTEL	81	836	5×10^{-5}	2×10^{-5}	6×10^{-7}	2×10^{-7}	all-PWR 2 [3/]
Biblis B	GERMAN RSS	FRG (W)	78	1300	4×10^{-5}	1×10^{-6}	3×10^{-9}	2×10^{-8}	Containment stronger and larger than U.S.
Big Rock [6/]	WOOD-LEAVER/ SAI	GE/BECHTEL	81	71	1×10^{-3}	0	0	—	Low power level, remote siting [9/]
Browns Ferry	IREP	GE/TVA (BWR 4, M I)	81	1067	2×10^{-4}	4×10^{-5}	2×10^{-7}	1×10^{-6}	ATWS and interdependency in redundant RHR trains, dominate core melt [10/]
Calvert Cliffs	RSSMAP	CE/BECHTEL	82	850	2×10^{-3}	1×10^{-3}	9×10^{-6}	2×10^{-5}	More comprehensive IREP study in progress. AFWS redesign will lower risk and core melt frequency [11/]
Crystal River	IREP	B&W/GILBERT	80	825	4×10^{-4}	2×10^{-4}	3×10^{-6}	2×10^{-6}	P core melt reduced by factor of 3 by procedure changes [12/]
Grand Gulf	RSSMAP	GE/BECHTEL (BWR 6, M III)	81	1250	4×10^{-5}	4×10^{-5}	1×10^{-7}	1×10^{-7}	Containment always fails directly to atmosphere, does not assume staff's analysis of ATWS risk
I.P. #2 [6/]	PLG	W/UE&C	82	873	4×10^{-4}	3×10^{-4}	3×10^{-8}	1×10^{-8}	Includes external events [7/] [13/]
	PLG	W/UE&C	83	873	1×10^{-4}	4×10^{-8} a 5×10^{-5} b	7×10^{-9} c	6×10^{-8} c	Includes external events
	PLG	W/UE&C	83	873	3×10^{-5}	4×10^{-8} a 9×10^{-7} b	6×10^{-9} c	3×10^{-9} c	Internal events only
I.P. #3 [6/]	PLG	W/UE&C	82	965	9×10^{-5}	3×10^{-5}	1×10^{-9}	3×10^{-10}	Includes external events [7/]
	PLG	W/UE&C	83	965	5×10^{-5}	4×10^{-8} a 6×10^{-6} b	8×10^{-9} c	2×10^{-8} c	Includes external events
	PLG	W/UE&C	83	965	3×10^{-5}	4×10^{-8} a 5×10^{-7} b	6×10^{-9} c	3×10^{-9} c	Internal events only
Limerick [6/]	SAI	GE/BECHTEL (BWR 4, M II)	81	1055	2×10^{-5}	3×10^{-6}	1×10^{-8}	1×10^{-8}	Base value, assumes ATWS fix
Millstone	IREP	GE/EBASCO	82	652	3×10^{-4}	1×10^{-4}	1×10^{-7}	6×10^{-7}	Major release is in Release Category 2
Oconee	RSSMAP	B&W/BECHTEL	80	860	8×10^{-5}	4×10^{-5}	2×10^{-7}	1×10^{-7}	1/4-PWR 2; 3/4-PWR 3
Peach Bottom	WASH-1400	GE/BECHTEL (BWR 4, M I)	75	1065	3×10^{-5}	7×10^{-6}	4×10^{-8}	3×10^{-8}	Staff's analysis of ATWS would likely result in risk exceeding safety goal
Sequoyah	RSSMAP	W-IC/TVA	78	1148	6×10^{-5}	4×10^{-5}	1×10^{-6}	5×10^{-7}	H_2 control reduces risk by 2 to 3
Surry	WASH-1400	W/S&W	75	775	6×10^{-5}	1×10^{-5}	2×10^{-7}	1×10^{-7}	2/3-PWR 2; 1/3-PWR 3
Zion [6/]	PLG	W/S&L	81	1100	4×10^{-5}	4×10^{-6}	2×10^{-8}	1×10^{-8}	Includes external events

1/ All numbers are median values or point estimates from internal initiators unless otherwise specified.

2/ Frequency of core melt 1×10^{-4} is the Safety Goal Value for Accident Probability Comparison.

3/ Frequency of release with Potential for Early Fatalities Assuming Nominal Evacuation and Warning Times (RSS).

4/ 5×10^{-7} is the Safety Goal for Early Fatality Risk Comparison. Same assumptions as 3 above unless specified.

5/ 2×10^{-6} is the Safety Goal for Cancer Fatality Risk Comparison. Same assumptions as 3 above unless specified.

6/ Utility-performed PRAs. All values are rough estimates based upon initial interpretation of results.

7/ Optimistic emergency response assumptions (1-hour delay with at least 5-hour warning) for dominant sequence when determining individual risk.

8/ Predicted risk is dominated by small LOCAs and transients. Source term reduction expected to reduce predicted risk to within guidelines. Likelihood of major release could be reduced by adding parallel valves at the discharge of the borated water storage tank or by improving DC power redundancy.

9/ Low power level (71 MWe) results in low individual risk. Extensive design modifications necessary to reduce core melt frequency.

10/ Reduction of core melt frequency would require redesign of the residual heat removal system to eliminate commonalities between trains which reduce the significance of multiple redundancy.

11/ AFWS redesign is expected to significantly reduce core melt frequency and individual risk. IREP study including improved AFWS design will be available in Spring 1983. Modification to DC power system and engineered safety system actuation system may be required to lower core melt frequency within guidelines. Predicted risk is dominated by transient event and should be significantly reduced by new source term data.

12/ Core melt frequency could be reduced to less than guidelines levels by improving written procedures and improving the reliability of the steam supply to the EFWS turbine driven pump. Predicted risk is dominated by small LOCA events. New source term information is expected to result in a moderate reduction in predicted risk.

13/ Core melt frequency is dominated by seismic considerations.

14/ Core melt frequency could be reduced to below guideline levels by redesigning the emergency AC power system to reduce dependency on the gas turbine and improving procedures for responding to transients. Predicted risk is dominated by transient events. New source term information should result in a significant reduction.

a. Frequency of release with potential for early fatalities assuming the nominal evacuation and warning times used in the IPPSS.
b. Frequency of release with potential for early fatalities assuming the nominal evacuation and warning times used in the RSS.
c. This is a mean value calculated using the IPPSS emergency response assumptions (1 hour delay with at least 8 hour warning for dominant sequence when calculating cancer fatality risk). The median value would be somewhat lower.