

ENVIRON, FILE (NEPA)

JUL 11 1972

D. Muller, Assistant Director for Environmental Projects, L

RESPONSE TO AGENCY COMMENTS ON INDIAN POINT - 2

PLANT NAME: Indian Point - 2
LICENSING STAGE: OL
DOCKET NUMBER: 50-247
RESPONSIBLE BRANCH: Accident Analysis Branch
REQUESTED COMPLETION DATE: July, 1972
APPLICANTS RESPONSE DATE NECESSARY FOR
NEXT ACTION PLANNED ON PROJECT: N/A
DESCRIPTION OF RESPONSE: Response to Agency Comments
REVIEW STATUS: Completed

As requested the agency comments on the draft Environmental Statement for Indian Point-2 has been reviewed with respect to the Plant Accident Section. The attached responses were prepared by the Accident Analysis Branch.

Original signed by
H. R. Denton

Harold R. Denton, Assistant Director
for Site Safety
Directorate of Licensing

Enclosure:
(As Stated)

cc: w/p enclosure
A. Giambusso
W. McDonald

cc: w/enclosure
S. Hanauer
J. Hendrie
R. DeYoung
D. Vassallo
C. Hale
G. Knighton
M. J. Oestmann

Docket File # 50-247

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SURNAME ▶	BGRIMES:mj	HRDENTON			
DATE ▶	7/10/72	7/11/72			

AGENCY COMMENTS ON INDIAN POINT-2 ACCIDENTS

A. EPA Comments

EPA made only general comments on the Plant Accident Section which do not require a response.

B. Interior Comments

1. Interior states on page 6 that "the environmental effects of accidental releases to water is lacking. Some of the accidents described in Table VI-1 could result in releases to the Hudson River and the effects could last for centuries. As we have stated in comments on previous environmental statements, we do not think that an analysis of only airborne emissions constitutes a complete evaluation of the possible impacts resulting from a major accident." We suggest that the following response be inserted in Section XII of the final detailed statement:

The doses calculated as consequences of the postulated accidents are based on airborne transport of radioactive materials resulting in both a direct and an inhalation dose. Our evaluation of the accident doses assumes that the applicant's environmental monitoring program and appropriate additional monitoring (which could be initiated subsequent to an incident detected by in-plant monitoring) would detect the presence of radioactivity in the environment in a timely manner such that remedial action could be taken if necessary to limit exposure from other potential pathways to man. The small quantities of dispersed radioactive material which might enter the food chain would not be significant in terms of endangering aquatic life.

The above paragraph has been concurred in by the Radiological Assessment Branch with respect to impact on aquatic life. A table is included which indicates the curies of iodine released for each accident class. Because this is an atmospheric release and because "average" meteorology should be assumed in determining dispersal of the materials, any entry of iodine into the food chain should be in dilute form.

An accident which was not addressed in the Annex to Appendix D, the discharge of effluents through a series of operator errors and equipment malfunctions, could result in several curies of long lived activity being discharged assuming that the entire

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contents of a storage tank were released. Even in this extreme event, which would require multiple operator errors over a long period of time coupled with the failure of automatic detection and shutoff equipment, the release of activity would be less than that proposed by the applicant for discharge on a yearly basis. We believe that the above paragraph adequately covers this point.

2. Interior states on page 6 that Class 9 accidents should be described and the environmental impact discussed. Because the current AEC position is as stated in the accident assessment writeup (that in view of the low probability of the accident the environmental risk is extremely small) no specific response to this Interior comment is required in the final Detailed Statement.

C. Commerce

The Department of Commerce requested a rationale for the meteorological assumptions used in the Accident Analysis. We suggest the following paragraph be included in Section XII.

A comment was made that the rationale for the meteorological assumptions used in the plant Accident Section should be given. The meteorological conditions assumed in the analysis approximate the dispersion conditions which would prevail at least 50% of the time.

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REALISTIC ACCIDENT Ci RELEASES
OF I-131. RELEASES FROM PLANT

<u>Accident</u>	Ci of (I-131 Released) (3000 Mwt Plant)	
	<u>PWR</u>	<u>BWR</u>
3.3 Liq. Waste Storage Tank (Atmospheric release)	0.3	7.0×10^{-3}
4.2 Off design Transient, BWR (0-1 day)	- - -	7.0×10^{-2}
5.2 Off design Transient, PWR	1.0×10^{-3}	- - - - -
5.3 Steam Generator Tube Rupture	5.0×10^{-2}	- - - - -
6.1 Fuel Bundle Drop (1 row pins)	0.3	2.0×10^{-3}
6.2 Heavy Object Drop (1 assembly)	5.0	1.0×10^{-2}
7.1 Fuel Assembly Drop in Pool	6.0×10^{-3}	3.0×10^{-3}
7.2 Heavy Object Drop in Pool	1.0×10^{-2}	3.0×10^{-3}
7.3 Cask Drop	- - - - -	0.4
8.1 Small LOCA (0-4 days + purge)	0.1*	5.0×10^{-3}
8.1 Large LOCA (0-30 days)	200*	8.0
8.1(a) Instrument Line Break	- - - - -	6.0×10^{-4}
8.2(a) Control Rod Ejection (0-30 days)	20*	- - - - -
8.2(b) Control Rod Drop (0-1 day)	- - - - -	9.0×10^{-2}
8.3(a) Steamline Break - Small (PWR)	8.0×10^{-3}	- - - - -
8.3(a) Steamline Break - Large (PWR)	2.0×10^{-2}	- - - - -
8.3(b) Small Steamline Break (BWR)	- - - - -	2.0×10^{-2}
8.3(b) Large Steamline Break (PWR)	= = = - -	1.0×10^{-1}

* These have the spray w/additives reduction factor in them.

Sprays w/o additives give releases four times as large.



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

Docket File # 50-247

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