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Docket No. 50-286

Daniel Muller, Assistant Director for Environmental Projects, L

RESPONSE TO AGENCY COMMENTS - DES FOR INDIAN POINT NUCLEAR GENERATING STATION, UNIT 3

Plant Name: Indian Point Nuclear Generating Station, Unit 3  
Licensing Stage: OL  
Docket Number: 50-286  
Responsible Branch: EPB #1  
Project Leader: M. Oestmann  
Requested Completion Date: December 21, 1973  
Description of Response: Response to Agency Comments

Enclosed are our responses to the agency comments on the DES for Indian Point Nuclear Generating Station, Unit 3.

*LS*

Robert Tedesco, Assistant Director  
for Containment Safety  
Directorate of Licensing

Enclosure:  
As stated

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INDIAN POINT NUCLEAR GENERATING STATION, UNIT 3

RESPONSES TO AGENCY COMMENTS

1. Comment (Department of Commerce):

With regard to the release of routine radioactive wastes to the atmosphere, it is not clear whether the major portion of the releases are sporadic or continuous. In the case of sporadic releases, the application of an annual average atmospheric dilution factor is inappropriate. For example, the gaseous processing system, which is the primary source of radioactivity, involves a minimum gaseous holdup time of 45 days in decay tanks. If this is followed by release to the atmosphere in a few hours, we would consider the source to be sporadic.

Response: The release rate of radioactive gaseous waste to the atmosphere will be governed by the limits specified in the Technical Specifications for this plant. We assume the release of gas will occur over a period of days and, therefore, use the annual average dispersion factor.

2. Comment (Department of Interior, page 6):

The solid radioactive wastes are described as evaporator concentrates from the liquid waste processing system along with spent resins, filter sludges, air filters, miscellaneous paper and rags. It is estimated that about 1,000 drums, having an estimated total activity of approximately 4,900 curies, will be shipped offsite annually to a licensed burial facility at Morehead, Kentucky. We think that the impact evaluation would be greatly improved if it specified the kinds of radionuclides, their physical states, their concentrations in wastes, and the estimated total volume of wastes for the expected operating life of the plant.

Response: Based on our evaluation of similar type reactors and data from operating reactors, we estimate that approximately 4900 Ci/yr will be shipped from the site in drums. Greater than 90% of the radioactivity associated with the wastes will be long-lived fission and corrosion products, principally Cs-134, Cs-137, Co-58, Co-60 and Fe-55.

3. Comment (Environmental Protection Agency):

Operating experience at other reactors which employ a 2 gallon per minute (gpm) waste evaporator (Ginna, H.B. Robinson), has shown that it is not possible to attain the design decontamination factor and/or flow rates assumed for this size evaporator. Although the operational problem may be characteristic of specific types of

evaporators, there is insufficient information to make this determination. The final statement should provide a discussion on the type of evaporator provided for Unit 3 and a discussion of its characteristics compared to those in operating plants which have experienced evaporator problems. Sufficient detail should be provided to assure that the Indian Point Unit 3 evaporator will perform up to its design characteristics, so that the liquid radioactive effluent can be considered to be "as low as practicable" using "state-of-the-art" technology.

Response: In our evaluation we find that the 2 gpm evaporator was of adequate capacity to treat the liquid waste for which it was intended. The radwaste system has the capacity to reduce effluents to less than 5 Ci/yr/unit and has the capability to keep the doses resulting from liquid radioactive materials to less than 5 mrem/yr, which meet our acceptance criteria.