

October 26, 1973

Three Mile Island Nuclear Station, Unit 1

Docket No. 50-289

Supplemental Testimony on Industrial Security Program

by

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Contention 5. "It is contended that in order to evaluate fully the environmental impact of the facility for a full and complete NEPA review, the applicant must set forth the most probable routes to and from the facility for the transportation of fuel and waste products. It is further contended that the applicant should be required to set forth specific protective measures, including shielding, escorts, and special routes for the transportation of fuel and waste products to and from the facility to protect from radiation releases and sabotage, to the extent that such transportation is within applicant's responsibility."

At the outset it must be made clear that with respect to protection from radiation releases for the transportation, the applicant and his carrier agent are required under the regulations of the Atomic Energy Commission 10 CFR Part 71 and the regulations of the Department of Transportation 49 CFR Parts 170-179, whether by truck or by rail, to meet stringent standards set forth in those regulations in the transportation of fuel and waste from the facility.

The principles of safety in transportation^{1/} underlying those regulatory requirements and some elaboration of the Regulatory standards and requirements^{2/} are given in WASH-1238.

As indicated in that discussion, the provisions for shielding of radioactive material during transportation are specified in the packaging standards of the AEC and DOT. The DOT regulations specify the maximum radiation levels which are allowed on the outside of each package of radioactive material (49 CFR §173.393(i) and (j)). The design of containers for shipping nuclear fuel and some waste must be specifically approved by the AEC before use and approval is contingent upon demonstrating that the standards of shielding retention will be met (10 CFR §71.35 and 71.36) under both normal and accident conditions.

The additional actions of providing an escort and special routes for the transportation of fuel and waste products to and from the facility to protect from radiation releases^{are not required and in my opinion} are unnecessary. These actions are discussed^{3/} in WASH-1238 insofar as they would apply to protect from radiation releases.

The Intervenor states:

"....to evaluate fully the environmental impact...the applicant must set forth the exact routes to and from the facility for the transportation of fuel and waste products."

1/ see page 4 of WASH-1238

2/ see pages 10 through 21 of WASH-1238

3/ see pages 56 and 57, paragraph A and page 58, paragraph B of WASH-1238

As indicated in the discussion of the principles of safety in transport in WASH-1238^{4/}, the shipments of fuel and waste would move in routine commerce. Protection of the public and transport workers during shipment is provided by limitations on package contents and standards and criteria on package design and control in routine commerce and does not depend on special routing.

The Commission has now made an evaluation of the environmental impact from transportation of fuel and wastes for more than 37 sites involving 50 nuclear power reactors, as set forth in final environmental statements and for 18 sites involving 34 power reactors as set forth in 18 draft environmental statements for which final environmental statements have not yet been issued.

The transportation environment in which shipments of fuel and wastes are made and the regulatory provisions applicable to transportation are essentially identical for all reactors. Although the methods and amount of transportation may vary from one reactor to another, the environmental impact of transportation and its importance in the cost-benefit balance is small in every case. Accordingly, generic consideration through the rule making process of the environmental impact from transportation, including exposures from normal conditions and risks from accidents is warranted.

This is also true in the case of Three Mile Island. The environmental impact of transportation of fuel and waste is small based on a typical route assumed for the analysis given in the FES;

^{4/} see page 4 of WASH-1238

analysis based on exact routes would not result in an estimated impact that is significantly different.

My previous discussion of the lack of need for special escorts to protect shipments from sabotage is addressed in my testimony on Contention 3 of this proceeding.