AUG 0 5 1976

Docket No.: 50-320

William H. Regan, Chief, Environmental Projects Branch 3, DSE

RAB REVIEW OF DRAFT SUPPLEMENT TO TMI-2 FES

PLANT NAME: Three Mile Island, Unit 2
LICENSING STAGE: OL
DOCKET NUMBER: 50-320
TELEPHONE NUMBER/BRANCH CODE: 24-92/32
PROJECT MANAGER: Jan A. Norris
RESPONSIBLE BRANCH: EPB-3
REQUESTED COMPLETION DATE: August 5, 1976
DESCRIPTION OF RESPONSE: Review of draft supplement to the FES
REVIEW STATUS: Complete

As requested RAB has reviewed the subject draft supplement and has the following suggestions:

pp. ii, item 3.C: change - "480 manrem/yr" to read "530 man-rem/yr".

pp. 5-7, Table 5.3: (1) change work force dose from 430 to 500; (2) change "General Public" to read "General Public (Total)" and add "25" in man-rem columns; (3) change dose from transportation from "7" to "3".

pp. 5-10: substitute attached new text for "Occupational Radiation Exposure".

pp. 5-9, Table 5.4: I note that the average natural background radiation dose is clearly too high (Table 5.3 footnote b is more current at 102 mrem/yr). This should be resolved with the authors of WASH-1203.

pp. 5-13, Table 5.6: Change the pathways for fish, invertebrates and algae to read "Hydrosphere".

This review was performed by R. Gotchy, RIS/RAB.

William E. Kreger, Chief
Radiological Assessment Branch
Division of Site Safety and
Environmental Analysis

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Enclosure:

POOR ORIGINAL

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cc w/o encl.:
W. McDonald
J. Panzarella
P. Shuttleworth

cc w/encl.:
S. Hanauer
H. Denton
D. Muller
F. Miraglia
R. Vollmer
J. Miller
S. Varga
V. Moore
J. Morris
R. Gotchy
W. Kreger
F. Congel

OFFICE	DSE:RAB	DSE:RAB	DSE:RAB		
SURNAME	RGOTCHY:pme	FCONGEL	WKREGER		50 077
DATE	8/5/76	8/5/76	8/5/76		

Occupational Radiation Exposure

Based on a review of the applicant's safety analysis report, the staff has determined that the applicant is committed to design features and operating practices that will assure that individual occupational radiation doses (occupational dose is defined in 10 CFR Part 20) and that individual and total plant population doses will be as low as is reasonably achievable.[1] For the purpose of portraying the radiological impact of the plant operation on all on-site personnel, it is necessary to estimate a man-rem occupational radiation dose. For a plant designed and proposed to be operated in a manner consistent with the 10 CFR Part 20, there will be many variables which influence exposure and make it difficult to determine a quantitative total occupational radiation dose for a specific plant. Therefore, past exposure experience from operating nuclear power stations[2] has been used to provide a widely applicable estimate to be used for all light water reactor power plants of the type and size for TMI, Unit 2. This experience indicates a value of 500 man-rem per year per reactor unit.

On this basis, the projected occupational radiation exposure impact of the two unit TMI station is estimated to be 1,000 man-rem per year.

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[1] 10 CFR Part 20, Standards for Protection Against Radiation

[2] NUREG 75/032, Occupational Radiation Exposure to Light Water Cooled Reactors 1969-1974 (June 1975)