

POOR ORIGINAL

MAY 19 1978

MEMORANDUM FOR: J. F. Stolz, Chief, Light Water Reactors Branch 1, DPM
FROM: W. E. Kreger, Chief, Radiological Assessment Branch, USE
SUBJECT: GRAND GULF ACCEPTANCE REVIEW

PLANT NAME: Grand Gulf, Units 1&2
LICENSING STAGE: 01
DOCKET NUMBERS: 50-416-417
MILESTONE NUMBER/BRANCH CODE: 01-33
PROJECT MANAGER: C. Thomas
RESPONSIBLE BRANCH: LWR-1
REQUESTED COMPLETION DATE: 5/22/78
DESCRIPTION OF RESPONSE: Recommendation for acceptance with requests for information
REVIEW STATUS: Acceptance review complete

The Radiation Protection Section of the Radiological Assessment Branch has performed an acceptance review of Section 12 and material referenced in Section 12 of the Grand Gulf FSAR. The FSAR contains adequate information to allow us to begin our full review; therefore, we recommend that the FSAR be accepted for docketing. Attached are a copy of Regulatory Guide 8.19 and requests for additional information which we will need to complete our review. We request the opportunity to discuss our requests with the applicant.

This review was performed by R. Ench, RPS/NAB.

Original signed by
T. D. Murphy

for

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

*Memo
5/22/78*

Enclosure: as stated

cc: R. Hartfield (w/o encl.)
S. Hanauer
H. Denton
D. Muller
L. Crocker
R. Vollmer
D. Crutchfield

R. Boyd
J. Collins
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Docket File
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W. Kreger

OFFICE	RAB:DSE	RAB:DSE	RAB:DSE		
SURNAME	RE:pc	TD:Murphy	WE:Kreger		773420245
DATE	5/19/78	5/18/78	5/19/78		

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12.0

RADIOLOGICAL ASSESSMENT331.1
(12.1.1)

Describe the applicable activities performed by the individual(s) in your utility management having responsibility for radiation protection. Describe the individual(s) with specific responsibility for design review to assure that occupational dose will be maintained As Low As is Reasonably Achievable (ALARA) by title and general qualifications.

331.2
(12.1.1)

Your description of your compliance with the guidance of Regulatory Guide 8.8, (Revision 2), states that these considerations were not implemented:

- 1) C.2.e(3), use of bright hydrogen-annealed tubing and piping in primary coolant and feedwater systems,
- 2) C.2.e(6), provision of laminar flow in the primary system,
- 3) C.2.i(7), use of canned pumps to reduce leakage,
- 4) C.2.i(9), use of spare connections on tanks and other components located in higher radiation zones.

Explain why these considerations were not implemented in light of your commitment to maintain doses ALARA.

331.3
(12.1.2)

Describe how you have used your dose assessment and the resultant man-rem doses to evaluate the facility design to assure that occupational doses will be ALARA. Also describe how you have factored experience from operating power reactors into your radiation protection design and procedures. Provide examples of improvements you have made in your design and procedures as a result of your use of 1) dose assessment, 2) operational experience, and 3) ALARA design review.

331.4
(12.3.4)
(RSP)

It is our position that the in-plant accident radiation monitoring systems should provide personnel with the capability to assess the radiation hazard in areas which may be accessed during the course of an accident. The accident monitoring systems may include the normal area radiation monitors, airborne radioactivity monitors, and portable radiation monitoring equipment

(item 331.8 deals with the portable equipment). Emergency power should be provided for installed accident monitoring systems. The accident monitoring systems should have usable ranges which include the maximum calculated accident levels, and they should be designed to operate properly in the environment caused by the accident. Describe your accident monitoring systems, and describe how your systems will meet this position.

331.5
(12.3.4)

Provide the frequency for calibration of the area radiation monitors.

331.6
(12.3.4)

Describe how your continuous airborne radioactivity systems will provide adequate coverage of general areas, rooms, and corridors which have a possibility of containing airborne radioactivity and which may be occupied by personnel. In order to provide adequate coverage, the systems must be capable of detecting ten MPC_a-hours of airborne particulate and iodine radioactivity.

331.7
(12.4)

Your dose assessment requires two additional elements in order to be complete. First, provide sufficient illustrative detail to explain how the radiation dose assessment process was performed. Table 12.4-3 provides adequate summary information for all categories except special maintenance; however, you should provide table(s) showing the activity or job, average dose rate, exposure time, number of workers, frequency, and dose for several jobs to demonstrate the detailed method which is summarized in Table 12.4-3. The details for every activity are not necessary, only several illustrative examples. Second, provide a breakdown of the activities which are included in the total of 150 man-rem/unit for special maintenance. Regulatory Guide 8.19, "Occupational Radiation Dose Assessment in Light-Water Reactor Power Plants Design Stage Man-rem Estimates", (attached) which has been published for comment will provide further guidance.

331.8
(12.5.2)

Describe what radiation protection equipment, including portable monitoring devices and respiratory protection devices, will be available to personnel responding to an accident. Describe where this equipment will be stored.

331.9
(12.5.3)

Provide the minimum frequency of whole body counting for personnel who enter radiation areas.