



DEPARTMENT OF HEALTH & HUMAN SERVICES

Food and Drug Administration

Public Health Service

50-416

Food and Drug Administration
Rockville MD 20857



Mr. A. Schwencer
Licensing Branch #2
Division of Licensing - NRR
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Schwencer:

The Bureau of Radiological Health staff have reviewed the Draft Environmental Statement (DES) for the Grand Gulf Nuclear Station, Units 1 and 2, NUREG-0777, May 1981.

In reviewing the DES, it is recognized that this is an administrative action for issuance of an operating license. We note (1) the application for construction of this plant was received by the NRC in 1972, (2) the NRC staff evaluation was issued as a Final Environmental Statement - Construction Phase in August 1973, and (3) as of April 1981, the construction of Unit 1 was 90 percent complete, and Unit 2 was 24 percent complete. The Bureau of Radiological Health staff have reevaluated the health aspects associated with the proposed operations of the plant, and have the following comments to offer:

1. It appears that the design objectives of 10 CFR 50, Appendix I, the operating standards of 40 CFR 190, and the proposed operations plan of the Grand Gulf Nuclear Station, Units 1 and 2, provide adequate assurance that the potential individual and population radiation doses identified meet current radiation protection standards.

2. The environmental pathways identified in Section 5.9.1.1 and Figure 5.1, page 5-11, and discussed in Section 5.4 of the Final Environmental Statement - Construction Phase (page I-89), cover all possible emission pathways that could impact on population in the environs of the facility. The dose computational methodology and models used in the estimation of radiation dose to individuals near the plant and populations within 80 km. of the plant have provided reasonable estimates of the doses resulting from normal operations and accident situations. Results of the environmental pathway dose calculations are shown in Appendix D, Tables D-4, D-5, D-6 and D-7, and confirm that the doses meet the design objectives.

3. The discussion in Section 5 on the environmental impact of postulated radiological accidents is considered to be an adequate assessment of the radiation exposure pathways and dose and health impacts of atmospheric releases. Section 5.9.2.1.2(3) (Emergency Preparedness) indicates that the Grand Gulf Nuclear Station emergency preparedness plan, including protective action measures for the station and environs, is in an advanced but not fully completed stage. We will forego further comment on emergency plans, realizing that the process of granting an operating license to the facility will include an adequate review of emergency preparedness (FEMA-NRC Memorandum of Understanding, Regional RAC's, criteria in NUREG-0654). We have representation on the RAC's whose evaluation of the emergency planning relevant to Grand Gulf will speak for this agency.

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The lessons learned from the accident at Three Mile Island - Unit 2, on March 28, 1979, should receive more attention in this DES. It would be helpful if the Section on accidents could be expanded to include a brief presentation of the critical public health and safety actions the NRC has taken or plans to take to improve reactor safety and to mitigate the consequences of potential accidents. Such a discussion would provide an amplification of this section of the DES, and would significantly increase public confidence and understanding of the implementation measures that the NRC has undertaken. The discussion in the last paragraph on Design Features, page 5-24, is a possible introduction to the proposed section. It is noted that paragraph 2, page 5-37, refers to the "NRC Action Plan developed as a result of the TMI-2 accident," NUREG-0660, Vol. I, May 1980. Even though, as stated, the actions have not been quantified, it would be desirable to include the above proposed discussion.

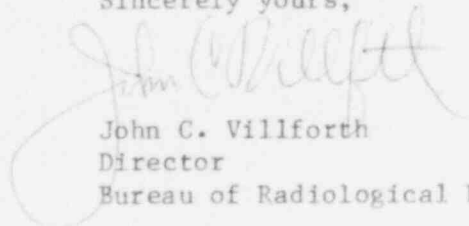
In view of some of the monitoring problems during the Three Mile Island-2 accident, we suggest that the plan might be modified to address in particular the problems of monitoring radiohalogens (especially radioiodines) in the presence of radionoble gases. This could be accomplished by reference to FEMA-REP-2, a document on instrumentation systems prepared with considerable input from NRC.

4. The radiological monitoring program, as presented in Section 5.9.1.4 and summarized in Table 5.3, appears to provide an adequate sampling frequency in expected critical exposure pathways. The analyses for specific radionuclides are considered sufficiently inclusive to (1) measure the extent of emission from the plant, and (2) verify that such emissions meet applicable radiation protection standards.

5. Section 5.10 and Appendix C of this DES contain a description of the environmental impact of the uranium fuel cycle. The environmental effects presented are a reasonable assessment of the population dose commitment and the health effects associated with release of Radon-222 from the UFC. There is no mention in Appendix C. of this DES of EPA's Uranium Fuel Cycle Standard, as promulgated in 40 CFR 190, and cited in paragraph 5 on page 5-8 of this DES. A statement should be included in that Appendix that the annual dose figures to members of the public from all fuel cycle operations meet the regulatory limits of 40 CFR 190. Since it can be supported by the data contained in Appendix C and Appendix D.

Thank you for the opportunity to review and comment on this Draft Environmental Statement.

Sincerely yours,



John C. Villforth
Director
Bureau of Radiological Health