



JUN 21 1982

Mr. Louis L. Wheeler
Project Manager
Office of Nuclear Reactor Regulations
U.S. Nuclear Regulatory Commission
Washington DC 20555

Dear Mr. Wheeler:

The Bureau of Radiological Health staff have reviewed the Draft Environmental Statement (DES) related to the operation of Seabrook Station, Units 1 and 2, NUREG-0895, dated May 1982.

In reviewing the DES, we note that (1) the application for a construction permit was received in March 1973, (2) the Final Environmental Statement - Construction Phase was issued in December 1974, (3) the construction permit was not issued until July 1976, and (4) as of March 1982, the construction of Unit 1 was about 61 per cent complete. The Bureau of Radiological Health staff evaluated the health and safety impacts associated with the proposed operation of the plant and have the following comments to offer:

1. The dose design objectives of 10 CFR 50, Appendix I, the Uranium Fuel Cycle standards of EPA's 40 CFR 190, and the applicant's proposed radioactive waste management system provide adequate assurance that radioactive materials in the effluents will be maintained as low as reasonably achievable (ALARA). It appears that the calculated doses to individuals and to populations are within current radiation protection standards.

2. The environmental pathways in Section 5.9.3 and shown in Figure 5.2 cover all possible emission pathways that could impact on the population in the environs of the facility. The dose computational methodology and models (Appendix B and D) used in the estimation of radiation doses to individuals and to populations within 80 km. of the plant have provided the means to make reasonable estimates of the doses resulting from normal operations and accident situations at the facility. Results of the calculations are shown in Appendix D, Tables D.6, D.7, D.8, and D.9. The results confirm that the calculated doses meet the design objectives.

3. Discussions in Section 5.9.4 on the environmental impact of postulated accidents is considered to be an adequate assessment of the radiation exposure pathways depicted in Figures 5.2 and 5.3 and the dose and health impacts of atmospheric releases. However, in Section 5.9.4.2(2), two additional pathways are mentioned that could be significant for accident releases. These are (1) fallout onto open bodies of water of radioactivity initially carried in the air, and (2) the "China Syndrome" that creates the potential for release of radioactive materials into the hydrosphere through contact with ground water. If possible, it would be helpful to expand the discussion in Sections 5.9.4.2(2) and 5.9.4.2(5) on releases to ground water to quantify the environmental and health impacts from the latter pathway in sufficient detail to permit an understanding of the consequences of such an event.

We will forego comments on Section 5.9.4.3(3) relating to emergency preparedness since we realize the process of granting an operating license will include an adequate review of the emergency preparedness plan for the station by NRC and the Federal Emergency Management Agency (FEMA). In this context, it is essential that the factors impacting on the capability to evacuate the beaches be fully understood and are factored into the station, state and local governments emergency response plans. The NRC's independent evacuation time estimation study should provide timely input to the respective plans. We have representation on the RAC's whose evaluation relative to the emergency preparedness for the Seabrook Station will speak for this department.

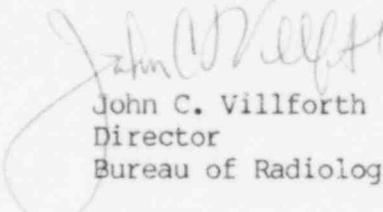
4. The radiological monitoring program, as presented in Section 5.9.3.4 and summarized in Table 5.6, appears to provide adequate sampling frequency in expected critical exposure pathways. The analyses for specific radionuclides are considered sufficiently inclusive to (1) measure the extent of emissions from the plant and (2) verify that such emissions meet applicable radiation protection standards.

In view of some of the monitoring problems identified during the Three Mile Island, Unit 2, accident, we suggest reevaluation of the airborne radioiodine and particulates sampling and analysis program to determine if the instrumentation is adequate to measure releases under accident conditions. In particular, address the problem 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.

5. Section 5.10 and Appendix C contain descriptions of the environmental impact of the Uranium Fuel Cycle (UFC). The environmental effects presented are a reasonable assessment of the population dose commitments and health effects associated with release of radon-222 from the UFC.

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

Sincerely yours,



John C. Villforth
Director
Bureau of Radiological Health