



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
Rockville MD 20857

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Dr. Kahtan N. Jabbour  
Project Manager  
Division of Licensing  
Office of Nuclear Reactor Regulations  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Dr. Jabbour:

The Bureau of Radiological Health staff has reviewed the Draft Environmental Statement (DES) related to the operation of the Catawba Nuclear Station, Units 1 and 2, NUREG-0921, dated August 1982.

In reviewing the DES, we note that (1) the application for a construction permit is dated July 1972, (2) the Final Environmental Statement-Construction Phase (FES-CP) was issued in December 1973, (3) after a safety review, evaluation by the ACRS, and a public hearing, the construction permits were issued in August 1975, and (4) as of May 1982, the construction of Unit 1 was about 90 percent complete. The Bureau of Radiological Health staff has evaluated the public health and safety impacts associated with the proposed operation of the plant and has the following comments to offer:

1. The numerical guidance on dose-design objectives of 10 CFR 50, Appendix I to meet ALARA requirements, the Uranium Fuel Cycle standards of EPA's 40 CFR 190, and the applicant's proposed radioactive waste management system (Section 4.2.5) provide adequate assurance that the effluents will be maintained as low as reasonably achievable (ALARA). It appears that the calculated doses to individuals and to populations resulting from effluent releases are within current radiation protection standards.

2. The environmental pathways identified in Section 5.9.3, and shown schematically in Figure 5.1, cover all possible emission pathways that could impact on the population in the environs of the facility. The dose computational methodology and models (Appendix D and E) used in the estimation of radiation doses to individuals and 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 plant. Results of the calculations are shown in Appendix D, Tables D.6, D.7, D.8 and D.9 and confirm that the calculated doses meet the design objectives.

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3. Discussion 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 Figure 5.1 and the dose and health impacts of atmospheric releases. However, in Section 5.9.4.2(2), two additional possible pathways are mentioned. These are (1) radioactive fallout onto open bodies of water, and (2) the "China Syndrome" that creates the potential for release of radioactive materials into the hydrosphere through contact with ground water. A discussion of this latter pathway has been included in Section 5.9.4.5(5). It would be helpful in understanding the consequences of the former, if some discussion of that pathway could also be included in an appropriate section, possibly in Section 5.9.4.5(5).

No mention is made in Section 5.9.4(3) of an Emergency Operation Facility (EOF) being planned for location on-site to coordinate activities needed to mitigate the consequences of serious accidents. Designation of such a facility would indicate one of the positive steps taken since the TMI-2 accident to improve reactor safety.

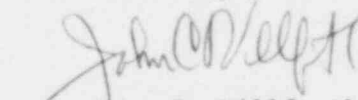
4. The radiological monitoring program as presented in Section 5.9.3.4, and summarized in Table 5.7, appears to provide adequate sampling frequency in critical exposure pathways. The analyses for specific radionuclides are considered sufficiently inclusive to (1) measure the extent of emissions from the plant, and (2) verify that such emissions meet applicable radiation protection standards.

It is noted that the NRC is considering proposals to require real time monitors that can provide useful, timely information to implement the off-site protection actions following an accident. In view of some of the monitoring problems identified during the TMI-2 accident, we suggest that the system, which is being studied by a consultant, include reevaluation of the airborne radioiodine sampling and analysis program, and, if appropriate, include the finding in the proposed system. We are particularly concerned about the problem of monitoring radiohalogens (specifically radioiodine) in the presence of radionoble gases.

5. Section 5.10 and Appendix C contain descriptions of the environmental impact of the Uranium Fuel Cycle (UFC). The population dose commitments and health effects presented are a reasonable assessment of the environmental effects from liquid and gaseous radioactive effluent releases from the UFC (excluding reactors, but including radon-222 and technicium-99).

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

Sincerely yours,



John C. Villforth  
Director  
Bureau of Radiological Health