DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
Rockville MD 20857

MAR 2 1982

Mr. Jon Hopkins
Licensing Project Manager
Office of Nuclear Reactor Regulations
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Hopkins:

The Bureau of Radiological Health staff have reviewed the Draft Environmental Statement (DES) related to the operation of the Wolf Creek Generating Station, Unit No. 1, NUREG-0878, dated January 1982.

In reviewing the DES, we note that (1) the application for a construction permit is dated April 1974, (2) the Final Environmental Statement - Construction Phase was issued in October 1975, (3) the construction permit was not issued until May 1977, and (4) as of September 1981, the construction of Unit 1 was about 75 percent complete. The Bureau of Radiological Health staff have evaluated the public 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 the population resulting from effluent releases are within current radiation protection standards.

2. The environmental pathways identified in Section 5.9.3 and in Figure 5.3 cover all possible emission pathways that could impact on the population in the environs of the facility. The dose computational methodology and models (Appendix C 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 C, Tables C.5, C.6, C.7 and C.8. These results confirm the doses meet the design objectives.

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3. Discussion in Section 5.9.4 on the environmental impact of postulated radiological accidents is considered to be an adequate assessment of the radiation exposure pathways depicted in Figure 5.3 and the dose and health impacts of atmospheric releases. However, in Section 5.9.4.2 (2), two additional possible exposure 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. If possible, it would be helpful to quantify the environmental and health impacts from these exposure pathways in sufficient detail to permit an understanding of the consequences of such events. We will forego comments on the emergency preparedness section (5.9.4.4(3)) since we realize the process of granting an operating license to the facility will include an adequate review of emergency plants (FEMA-NRC Memorandum of Understanding, Regional RAC's criteria in NUREG-0654). We have representation on the RAC's whose evaluation relative to the Wolf Creek Generating Station will speak for this agency.

It is noted in Section 4.2.1 that an Emergency Operation Facility has been located on-site to coordinate activities needed to mitigate the consequences of accidents. Some mention of this facility could be included in this section to indicate one of the positive steps the NRC has taken to improve reactor safety as a result of the TMI-2 accident.

4. The radiological monitoring program, as presented in Section 5.9.3.4 and summarized in Table 5.5, 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 that were identified during the Three Mile Island, Unit-2 accident, we suggest reevaluation of the airborne radioiodine sampling and analysis program. In particular, it should be modified to address the problem of monitoring radiohalogens (especially radioiodine) 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 G 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 the 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