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Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Food and Drug Administration Rockville MD 20857

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Dear Mr. Hernan:

The Bureau of Radiological Health staff have reviewed the Draft Environmental Statement (DES) for the Midland Plant, Units 1 and 2, NUREG-0537, dated February 1982.

In reviewing the DES, we note that (1) the application for a construction permit is dated January 13, 1969, (2) the NRC staff evaluation was issued as a Final Environmental Statement - Construction Phase in December 1972, and (3) as of December 1981, Unit No. 1 was about 73 percent complete. The Bureau of Radiological Health staff have assessed the public health and safety impact associated with the proposed operation 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 EPA's 40 CFR 190, and the applicant's radioactive waste treatment system and effluent control measures provide adequate assurance that the radioactive materials in the effluents will be maintained as low as reasonably achievable (ALARA). The calculated doses to individuals and to populations from effluent releases are within the current radiation protection standards.
- 2. The environmental pathways identified in Section 5.9.3 and Figure 5.2, and discussed in Section 5.9.3.1, cover all possible emission pathways that could impact on the population in the environs of the facility. The dose computational methodology and models (Appendix 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 these calculations are shown in Appendix C, Tables C.6, C.7, C.8 and C.9. These results confirm that the doses meet the design objectives.
- 3. The 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 and the dose and health impacts of atmospheric releases. The evacuation model presented in Appendix F.1 is based on assumed conditions and capabilities for evacuation in specified downwind directions. Since evacuation involves early and expeditious movement of people to avoid exposure from the passing radioactive cloud and any acute ground contamination following cloud passage, it would be helpful to include some references to show that studies either have been made or are planned to verify the model and to demonstrate that evacuation is feasible at the specific facility covered by the DES.

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We will forego commenting on the emergency preparedness discussion in Section 5.9.4.4(3), since we realize 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 representatives on the RAC's whose evaluation relative to the Midland Plant will speak for this agency. It is noted in Section 4.2.1 that an Emergency Operation Facility (EOF) will be constructed which will be the focal point for directing responses and coordinating activities to mitigate the consequences of accidents.

4. The radiological monitoring program, as presented in Section 5.9.3.4, and summarized in Table 5.3, appears to provide an adequate environmental monitoring program for the critical exposure pathways. However, it is indicated that milk will be sampled at five locations, but it does not include information on frequency of analysis and required sensitivity. (Required analytical sensitivity is given in NUREG 0492.) In our view, it is important to establish a well-planned program as part of the operational monitoring program. Such a program is needed in the event of a radiological accident to provide a source of data on radioiodine in milk for use in the event protective actions are necessary.

Also, we suggest that the plan be modified to address the particular problems 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 with considerable input from NRC. Furthermore, it would be helpful to cite specific studies at operating plants that would verify that the instrument systems for making such measurements actually perform as expected and meet the technical specifications.

5. Section 5.10 and Appendix G contain a description of the environmental impact of the uranium fuel cycle. The environmental effects presented are reasonable assessments of the population dose commitments and health effects associated with the release of radon-222 from the Uranium Fuel Cycle.

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

Sincerely yours,

John C. Villforth

Director

Bureau of Radiological Health