

June 8, 2004

Ms. Lisa Crawford, President
Fernald Residents for Environmental
Safety and Health
P.O. Box 129
Ross, Ohio 45061-0129

Dear Ms. Crawford:

Thank you for your letter of April 16, 2004, which presented questions regarding activity classification, hazard categorization, safety analysis methodology, and the level of startup review that the contractor, Fluor Fernald, Inc. (Fluor) has proposed and the Department of Energy (DOE) has approved for the Silos project at the Fernald Closure Project. The Silos project includes the Radon Control System project, the Silo 3 project, the Accelerated Waste Retrieval project, and the Silos 1 and 2 Treatment project. You also asked the Defense Nuclear Facilities Safety Board (Board) to independently review the safety documentation and startup regimen to be utilized by Fluor and DOE on the Silos project.

The Board has reviewed documentation on the Silos project activity classification, hazard categorization, safety analysis methodology, and startup readiness review plans issued by Fluor and DOE. The Board has also reviewed specific documents for the Silo 3 project. In addition, the Board's staff has visited the Fernald site on three occasions in the last twelve months to review the Silos and other projects, and has reported its observations to the Board. The Board is aware of the current status of Silos project activities and the safety issues that have arisen on the project. The Board's responses to the questions in your letter are provided below.

Activity Classification and Safety Analysis

Fluor proposed to DOE on March 20, 2002, that the Silos project be classified as an environmental restoration activity not done within a permanent structure. This would allow a Health and Safety Plan to be used as the documented safety analysis methodology for all Silos project activities, including the removal, processing, and packaging of waste stored in Silo 3. In the technical basis document submitted with the request, Fluor compared the differences between a traditional Safety Analysis Report and a Health and Safety Plan for the project, and concluded that the same radiological and occupational worker protection and safety requirements would apply to both approaches. Fluor indicated that there were benefits to using a Nuclear Health and Safety Plan, which would include both radiological and occupational health and safety requirements, and concluded that the accident analysis and controls identified in the document would provide adequate protection to the workers, members of the public, and the environment.

The DOE Ohio Field Office Manager approved Fluor's request on July 20, 2002. At that time, the Board reviewed the information provided by Fluor and DOE to support DOE's determination, and concluded that, given the hazards associated with the retrieval and disposal of the waste from the Silos, the proposed approach could produce an acceptable safety basis and adequate controls, if implemented effectively.

The resulting Nuclear Health and Safety Plan prepared by Fluor for Silo 3 was approved by DOE in January 2004. Based on review of the plan and the information supporting DOE's determination, the Board agrees that the Nuclear Health and Safety Plan for Silo 3 provides adequate protection to workers, members of the public, and the environment. The Board also evaluated DOE approval authority for the Silos project, and determined that the DOE Ohio Field Office Manager has been properly delegated as the approval authority for the Silos project by the Assistant Secretary for Environmental Management.

Hazard Categorization and Readiness Reviews

Although the preliminary hazard categorization of Silo 3, based on its radioactive material inventory, was found to be Hazard Category 3, Fluor used the consequences of the Evaluation Basis Accidents to determine that the hazard category of the Silo 3 project is less than Hazard Category 3. As a result, Fluor determined that an Operational Readiness Review or a Readiness Assessment is not required to be performed per DOE Order 425.1C, *Startup and Restart of Nuclear Facilities*. Consequently, Fluor's standard operating procedures are to be used for startup of a less than Hazard Category 3 activity. The DOE Ohio Field Office Manager, however, has taken the conservative step of directing DOE to perform a graded Readiness Assessment in parallel with the Fluor Standard Startup Review for Silo 3. The DOE Ohio Field Office Manager has approved the qualifications of the members of the DOE Readiness Assessment team for Silo 3, and the Readiness Assessment will be led by an engineering manager from the DOE Savannah River Operations Office.

The Board has reviewed Fluor's *Silo 3 Project Startup Review Plan* and additional startup readiness review documentation provided by Fluor and DOE. The Board has determined that performance of a startup review by Fluor in parallel with a DOE Readiness Assessment would constitute an adequate review of Fluor's readiness to begin Silo 3 retrieval and packaging operations. This level of readiness review (combination of the contractor's and DOE's startup reviews) is deemed to be equivalent to that required by DOE Order 425.1C, if the facility's hazard categorization were to remain as Hazard Category 3. The Fluor startup review plan adequately defines the breadth and prerequisites associated with the startup review, and the DOE Readiness Assessment (led by an engineering manager not associated with Fernald or the Ohio Field Office) may be expected to provide an independent evaluation of readiness.

The Board also evaluated planning for wall cutting operations that may be required to complete retrieval of the waste from Silo 3. Any such activity would require an Unreviewed Safety Question Determination and DOE approval. The Board will closely follow any activities

associated with the need to cut an opening in the wall of Silo 3, including decision-making regarding the appropriate level of readiness reviews by Fluor and DOE.

Overall, the Board agrees that the resulting safety basis, controls, and level of startup review are appropriate for the Silo 3 waste retrieval and packaging activities.

The Board will continue to follow closely DOE's efforts related to the Silos project at the Fernald Closure Project. The Board's staff will be on site during the Fluor and DOE readiness reviews for Silo 3 to evaluate the adequacy of the reviews and the readiness of the project. The Board will also review the safety documentation for the removal and processing of waste from Silos 1 and 2 as the documents become available, and will oversee the Fluor and DOE startup reviews for these activities. Additionally, members of the Board are planning to be on site in August, and we look forward to meeting with you.

Please contact me if you would like additional information, or if I can be of further assistance.

Sincerely,

John T. Conway
Chairman