John T. Conway, Chairman
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## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

625 Indiana Avenue, NW, Suite 700, Washington, D.C. 20004-2901 (202) 694-7000



May 30, 2000

Brigadier General Thomas F. Gioconda Acting Deputy Administrator for Defense Programs Department of Energy 1000 Independence Avenue, SW Washington, DC 20585-0104

Dear General Gioconda:

The Defense Nuclear Facilities Safety Board (Board) visited the Department of Energy (DOE) Oak Ridge Y-12 Plant in April and May 2000 and toured the Hydrogen Fluoride Supply System (HFSS). The Board was pleased to observe that efforts are underway to establish the technical baseline and reevaluate the safety basis of this system. However, the Board observed that the current design of the HFSS does not provide sufficient confinement of hydrogen fluoride. DOE Order 420.1, Facility Safety, requires that all systems, structures, and components (SSCs) necessary for the confinement of hazardous materials be designed, constructed, and operated to withstand the effects of natural phenomena. According to the guidance provided by DOE for Section 4.4 of this Order, such SSCs should be designed to meet the requirements of Performance Category 3 (PC-3) to provide confinement of the hazardous material during an earthquake and to ensure adequate protection of health and safety of the public and the workers.

The existing design of the HFSS does not meet PC-3 confinement requirements. However, recognizing that nearly all the material at risk is inside the dock enclosures at any given time, the Board believes a more focused effort (such as providing automatic isolation capability and additional piping supports within these enclosures) could ensure that this limited section of the HFSS meets PC-3 requirements to isolate and confine the hazardous material on the dock during a potential seismic event.

Sincerely,

John T. Conway

Chairman

c: Ms. G. Leah Dever Mr. Mark B. Whitaker, Jr.