

John T. Conway, Chairman
A.J. Eggenberger, Vice Chairman
John E. Mansfield
R. Bruce Matthews

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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



November 13, 2003

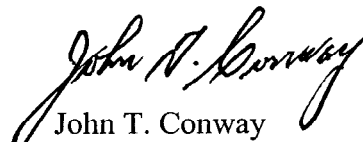
The Honorable Spencer Abraham
Secretary of Energy
1000 Independence Avenue, SW
Washington, DC 20585-1000

Dear Secretary Abraham:

The Defense Nuclear Facilities Safety Board (Board) has been acutely aware of the safety concerns of the red oil phenomenon in nuclear chemical processing facilities ever since the red oil explosion at Tomsk-7 in 1993. The Board urges the Department of Energy to continue to periodically assess the controls that are in place to prevent a red oil explosion. As long as there are organics, nitric acid, and process equipment capable of heating these components, red oil explosions will continue to be a threat to safety in the defense nuclear complex.

Enclosed for your information and for use by those responsible for nuclear process safety is a technical report, DNFSB/TECH-33, *Control of Red Oil Explosions in Defense Nuclear Facilities*. The report identifies 3 types of typical process equipment in defense nuclear facilities that are capable of red oil formation. Four generic controls are identified to prevent red oil explosions.

Sincerely,



John T. Conway
Chairman

c: The Honorable Linton Brooks
The Honorable Jessie Hill Roberson
Mr. Mark B. Whitaker, Jr.

Enclosure