

Title: Red Alert- Employee Severely Burned During Chemical Process

On August 22, 2000, at approximately 1:10 p.m. an accident involving a violent chemical reaction occurred and an employee, working on a cleanup technology technical demonstration project received serious burns over his body.

The employee was airlifted to the Ohio State University Burn Center in Columbus, where he was in critical condition as of last night. This morning, he was upgraded to a serious condition. Examination revealed the technician was burned severely with 1st, 2nd, and 3rd degree burns. A second employee was treated on site for minor burns and released.

A Type B investigation will be initiated on August 23, 2000, headed by Oak Ridge personnel. The root cause of the accident will be determined by the investigation.

The employee works for IT Corporation under a subcontract to Oak Ridge National Laboratory (ORNL) which is working with Bechtel Jacobs LLC on this technology demonstration project. The employee had withdrawn a device called a lance, which is used to inject an oxidant, sodium permanganate, into groundwater contaminated with trichloroethene (TCE). The technician was attempting to neutralize and dispose of a residual amount of 40% sodium permanganate solution from down-hole injections, when he directly added crystalline sodium thiosulphate for the purpose of neutralization. A violent reaction occurred when the chemicals were mixed resulting in the technician being severely burned. The technology being tested in the X-701B contaminated groundwater area is called Lance Permeation. This demonstration project was being conducted as part of the Corrective Actions/Corrective Measures associated with the cleanup of Quadrant II. The technology uses vertical lances to penetrate the subsurface of contaminated clay and silt to depths of up to 40 feet. From each lance tip, the oxidant sodium permanganate is injected. The sodium permanganate breaks down the TCE in place. There was no release of radiological or other hazardous material as a result of this accident.