

PPC 9443.1984(03)

CHEMICAL AGENTS GB, VX, AND HD AT MUNITIONS DISPOSAL FACILITY

June 4, 1984

Tooele Army Depot

Matthew A. Straus, Acting Chief  
Waste Identification Branch, (WH-562B)

Jon P. Yeagley, Chief  
State Program Section (SAW-WM)

We have reviewed your submissions related to the Chemical Agents Munitions Disposal System facility. Our preliminary assessment of the properties of agents GB (isopropyl methyl phosphonofluoridate) VX (Ethyl-S-diisopropyl aminoethyl methyl phosphonothioate), and HD (Bis-2-chloroethyl sulfide) lead us to conclude that the wastes should be considered hazardous due to their reactive nature. While the wastes are not specifically listed at this time, we believe them to be reactive according to the definition of §261.23(a)(4)--namely, when mixed with water, they generate toxic gases, vapors, or fumes in a quantity sufficient to present danger to human health or the environment. The gases of concern in each case are as follows: for GB, emissions of hydrogen fluoride which has a TLV of 3 ppm in air; or HD, emissions of hydrogen chloride which has a TLV of 5 ppm; and for VX, emissions of diethyl methyl phosphonate, bis-ethyl methyl phosphonic acid and bis-S-(diisopropyl amino ethyl) methyl phosphonodithiolate. In the case of VX, the emitted gases are indicated as toxic decomposition products that would be emitted upon addition of VX to water. (The reference for these anticipated emissions is the Army's field manual on military chemistry.) Sufficient quantities of any of these chemical agents when mixed with water, would be expected to emit gases at levels of concern, and thus, exhibit the characteristic of reactivity. In addition, mustard gas could meet the criteria in §261.23(a)(5), due to emissions of sulfides.

With respect to our ultimate plans vis-a-vis these wastes, we do expect to develop listings for all three agents. These

listings would probably be developed under the criteria of §261.1(a)(2) and result in the designation of the wastes as Acute Hazardous Waste. Unfortunately, other priorities and a general dearth of available information will hinder our efforts and may result in the passage of considerable time before these listings are finalized. We are not overly concerned about this delay, however, since the State's letter suggests that these wastes are being managed in a manner consistent with their extreme toxicity. In addition, as we have stated above, the wastes are currently regulated. Nevertheless, it would be useful to our efforts if your group of the State agency could submit information on the wastes and the corresponding treatment and disposal options under discussion.

Do not hesitate to call Ed Abrams (382-4775) of my staff if you require further information.

cc: Julia Bussey (T-2-2) Region IX