

Ad Hoc Committee on Chemical Weapons

UNITED STATES OF AMERICA

Demilitarization and Disposal of U.S. Chemical Warfare
Agent and Munitions

Summary: This paper will describe the destruction facility, the destruction criteria, the component technology, the process technology, control system and monitors and pollution abatement systems developed by the United States to dispose of chemical munitions. It represents a description of the present facilities and does not include any measures to meet the verification requirements being developed in the rolling text. These systems demonstrate that the disposal of even the most hazardous waste can be accomplished safely with minimal risk to the workforce and negligible impact on the environment.

CAMDS/JACADS

The prototype demilitarization facility, the Chemical Agent/munitions Disposal System (CAMDS) became operational in September 1979. This plant serves as the test facility to evaluate various processes for incorporation into large-scale production facilities. The first of these full-scale production facilities is the Johnston Atoll Chemical Agent Disposal System (JACADS). This facility, constructed on Johnston Island, is currently undergoing equipment testing and systemization.

The chemical munitions to be demilitarized are stored in a variety of configurations; some include fuzes, explosive burster charges, and propellant. Lethal chemical agent fills currently include mustard and nerve agents. Table 1 illustrates the various munitions that the JACADS disposal system will process.

Demilitarization Criteria and Facility Design

Disposal poses significant challenges for the following reasons:

1. Safe disassembly of the explosives and propellants
2. Disposal of the removed explosive components and propellants
3. Accessing the agent cavity
4. Disposal of the toxic agent
5. Disposal of the munition bodies
6. Disposal of the process generated wastes