

determined by X-raying each item. Then the demilitarization process is achieved, with very high level protective methodologies. The final step of the destruction includes incineration at high temperatures. The combustion flue gases are scrubbed, while the aqueous solution of mineralized arsenic (III) compounds is subjected to oxidation and subsequent arsenic precipitation. The resulting cakes containing arsenic are finally deposited in an old underground salt mine. The incineration plant is designed for a destruction capacity of approximately 70 agent tons per year (cf. CD/1026 - 3 August 1990). An additional plant is currently being planned for the disposal of both soil contaminated with arsenicals and explosives mixed with toxic chemicals.

In Italy (10), the old CW, particularly those composed of a mixture of mustard and phenyldichloro-arsine, are processed in a liquid phase by oxidation by hydrogen peroxide, followed by a neutralisation by lime and then cementation of the reaction products and preservation in safety of the concrete thus obtained. The cost of the destruction plant was US-\$ 2,1 million. The operating costs per year, including personnel, amount approximately US-\$ 370 000. Two further plants are in phase of planning, in order to cope with new problems related to the discovery of old and obsolete rounds and an significant amount of adamsite.

In Belgium (11), an installation to dismantle problem munitions from the First World War is in its final phase and a dismantling scheme has been settled. For the time being, the following steps are used : transportation in wooden cases, initial cleaning with high-pressure water, sorting of the munitions in two groups (explosive non toxic or munitions non positively identified), storage by type and caliber. The neutralized chemical products are stored as necessary and will be destroyed later, with contaminated materials. In the near future, dismantling is planned to separate shells into three parts : the contents, the detonator and/or explosive charge, and the metal casing.

IV - SAFETY AND ENVIRONMENTAL ISSUES

All countries involved in destroying CW have taken great care to ensure the safety of both the personnel operating the facilities and of the public living or working in the vicinity of the installations. Health monitoring of destruction personnel on a regular basis is a vital task. Psychological stress factors are also taken into account. Currently long-term health monitoring of personnel involved in such operations, after conclusion of the tasks, is usually not required. Yet, medical records are typically kept for several decades.

Some medical aspects of CW destruction were presented (12) : necessity of medical service within the destruction facility area, prophylaxis based on administration of reversible