

NORWAY

VERIFICATION OF ALLEGED USE OF CHEMICAL WEAPONS

A NEW APPROACH FOR VERIFICATION PROCEDURES

1. Introduction

In 1981 the Norwegian Government started a research programme on verification of alleged use of chemical weapons. This programme is being carried out by the Division for Environmental Toxicology of the Norwegian Defence Research Establishment at Kjeller, near Oslo. The research findings have been presented to the Conference on Disarmament in annual reports and working papers, which have been compiled in the publication Contributions by Norway to the Conference on Disarmament 1982-1987, published by the Royal Norwegian Ministry of Foreign Affairs in March 1988 (document CD/813 of 7 March 1988). The 1988 report was presented to the Conference in document CD/857 of 12 August 1988 and in Working Paper CD/861 of 22 August 1988.

The Norwegian research programme is directly linked to the negotiations on Article IX of the Chemical Weapons Convention. Together with Canada, Norway has submitted a proposal for a text concerning procedures as an Annex to this Article (document CD/766 of 2 July 1987).

In 1988-1989 the Norwegian Defence Research Establishment introduced a new technique of analysis for verification of alleged use of chemical weapons. It is called the headspace gas chromatography technique, which permits analysis directly on samples without prior cleaning procedures. Based on this simplified method, research is being continued with a view to further developing the procedures to be followed by an international inspection team. In 1988-1989, the research has been focused on the application of this new method and its consequences for sampling, handling and transport of samples.

The verification procedure

The verification procedure developed as part of the Norwegian research programme is based on a method applying absorption of chemical warfare agents from aqueous solutions to porous polymers. This involves extracting solid sample material with water before this extract is passed through a cartridge filled with a porous polymer. The advantage of this method is, firstly, that the amount of sample which has to be carried back to the laboratory is dramatically reduced and, secondly, that the same procedure may be used for several types of sample material.