

V. THE COURSE OF THE OPERATION

29. The concept of the operation was developed shortly after the return of the fact-finding mission to the Netherlands; it was worked out in detail in the months that followed. At the end of October 1978, after the Indonesian authorities had consented to the plan, work on the design and the construction of the incinerator, pump unit and auxiliary equipment as well as on the provision of protective and detection equipment, etc. was started. By mid-February 1979 the incinerator could be tested for proper functioning and beginning of March 1979, 22 tons of equipment and materials were shipped to Indonesia to arrive in Jakarta on 28 April 1979.

30. In the meantime, the PUSNUBIKAD (NBC - Corps) of the Indonesian Army had made the necessary arrangements and preparations in Batujajar, such as construction of the foundation of the incinerator, improvements in road conditions on storage site and artillery shooting range, provision of domestic oil for heating the furnaces, organization of the transport of materials and equipment from Tanjung Priok Harbour to Batujajar, etc. The security and logistics of the operation were taken care of by the Indonesian Army. Personnel to assist in the construction of the equipment was also provided, and a team of officials from PUSNUBIKAD and other competent services of the army joined the Netherlands' team in the execution of the task.

31. The construction phase was started immediately after the arrival of the materials and equipment at Batujajar on 2 May 1979. This phase which included the final testing of the equipment and the adjustment of the various controls of the incinerator lasted until 23 May 1979.

32. The incineration phase commenced on 1 June 1979. In the period that followed until 2 July 1979, 32,290 litres of mustard were destroyed on the average of 1,000 litres per day.

33. Incineration took place only in daytime, from about half an hour after sunrise till half an hour before sunset. At night meteorological conditions were found to be not suitable for meeting the requirements of the controlled incineration concept. In daytime the meteorological conditions were more favourable than expected, in particular the wind direction, which at the beginning of the dry season was predominantly along the axis of the terrain. In combination with the effect of plume rise, which was considerable, this made it possible to attain the maximum burning rate of 160 litres per hour throughout almost the whole period. The concentrations of sulphur dioxide and hydrochloric acid were never found to exceed the MAC or MIC values respectively on and outside the terrain.

34. Two problems were encountered during the incineration period. First, the magnetic valves in the mustard circuit got stuck on several occasions, due to polymeric substances being present in minute amounts in the mustard, and had to be replaced. This was, however, a minor problem compared to difficulties encountered because of corrosion of the mustard pumps. This corrosion was caused by strong acidic constituents resulting from partial hydrolysis in the storage tanks (a.o. ferric chloride was present as a result of reaction of acid with the storage tank wall). The presence of these acidic constituents was in contrast with the results of the analysis of the samples taken in 1978. No acidic constituents were found and the purity was estimated at about 95 per cent. This might be the result of penetration of rain water into the storage tanks in the year that elapsed after sampling, or more likely of superficial sampling by the fact-finding mission in the previous year. The corrosion problems were encountered throughout the whole incineration period. These were solved by replacing the simple pumps when they did not function anymore. The problem became only serious when the replacement of the pumps of the fourth tank became so frequent that the stock of pumps became exhausted and incineration had to be interrupted from 26 - 28 June 1979.