

The observers would arrive at the site before destruction operations were to begin. They would be provided with engineering drawings showing all areas of the destruction facility and with a detailed technical description of the destruction process. On the basis of this information, they would inspect the plant to confirm the information and to ensure that diversion of agent within the plant was not possible. Periodic facility reinspections would be needed during the destruction operations to ensure that no illegal plant modifications had been made. These procedures would serve to provide assurance that agent could not simply be drained off and that a simulated waste material could not be introduced into the plant. Additional assurance might be obtained if the observers were allowed to introduce a tracer material into the chemical agent before destruction.

During the destruction operations, the observers should be authorized to visit any area of the facility at any time under the same conditions as host state personnel and to observe all activities. In order to supplement the observers and to minimize the need for their continuous presence in particular locations during the destruction operations, surveillance of certain areas may be carried out remotely using closed-circuit television systems. Additionally, areas requiring surveillance, but in which facility personnel would not normally be present, might be monitored using cameras that are triggered by a motion detector and random interval timer. The level of observation required could also be reduced by use of tamper-resistant, tamper-indicating seals to close off certain areas of the facility or to prevent tampering with process or monitoring equipment. (Such seals have already been developed for use in nuclear safeguard operations). Provision for supervised access in an emergency or to handle needed maintenance would be made.

The techniques discussed above, while providing important safeguards against certain types of illegal activities during the destruction operations, cannot provide confirmation of data furnished on the type and quantity of chemical agent being destroyed. One technique for verifying the quantity of chemical agent destroyed would be continuous monitoring of the rate at which agent flows into the destruction chamber. From this data, the total quantity destroyed could be calculated.

Two methods which would help to confirm the nature of the material being destroyed would be to measure the toxicity of the agent to animals, as recently suggested by Sweden, and to conduct a chemical analysis of the agent. Either method would require taking small samples periodically near the flow meter, which should not be difficult technically.