capable. CW capability was defined for the purpose of this trial inspection as being made up of the following increments: "chemical capability" (i.e., the availability of requisite chemicals), "technological capability" (i.e., the availability of requisite equipment), safety features, and the overall security regime at the inspected site. A part of this phase would also be to confirm that no signs are present which might be interpreted as residues of cover-up activities at the inspected site.

Phase 3

Resolution of any anomalies which have been encountered in phases 1 and 2 with the aim to allow to conclusively demonstrate compliance with treaty provisions pursuant to the inspection mandate.

In case that not all anomalies can be resolved and that the inspection team assesses an immediate and high risk that treaty provisions may in fact have been violated, the inspection would continue with phase 4.

Phase 4

Highly intrusive inspection activities in order to conclusively demonstrate compliance, or to prove a violation of treaty provisions.

The basic approach in any of these inspection phases was to request specific facility statements and supportive documentation. The content, validity, and truth of these statements was then to be verified to the extent possible.

3. Experimental validation of the inspection methodology in laboratory experiments and in the actual trial inspection

3.1. Laboratory tests and other pre-inspection activities

3.1.1. Development of analytical methods

The analytical methods used for the trial challenge inspection were ion mobility spectrometry and gas chromatography. Transportable instruments were used in either case.

While IMS was applied for trace detection and identification of organophosphorous schedule-1-chemicals, a combination of portable GC and IMS was applied in order to validate the facility statement about the plant's actual production activities.

Schedule-1-chemicals were simulated by a nerve agent simulant having a proton affinity almost the same as that of nerve agents: diisopropyl-methylphosphonate (DIMP).

Sampling techniques and analytical methods were developed and tested in the laboratory in order to prepare for the on-site analysis of different types of samples. These, together