By effectively verifiable, we mean a Convention that empowers the implementing organization with the means and authority to investigate, inspect and pursue any activity that might be related to non-compliance with the Convention.

While all three criteria are essential, I should like to underline the importance of the last: a truly effective verification regime. This, in our view, would be the only way to provide us with the necessary confidence in, and the means of ensuring, a total ban. The implementing organization must not only be responsible for supervising or monitoring the complete and final destruction of declared stocks and production facilities, and the activities of declared facilities producting scheduled chemicals; it must also be able to investigate activities and, as necessary, inspect undeclared facilities.

We are therefore convinced that, to be effective, the verification regime under the Convention must be as complete as possible and intrusive to an extent not hitherto realized under any other arms control agreement.

In the first instance, this means a challenge inspection component of exceptional rigour. Whether we call it "challenge inspection" or "inspection on request," and however we characterize it, it stands as the ultimate safety net of the Convention — the final means under the Convention whereby a state party can seek assurance that other states parties remain in full compliance with their obligations.

Notwithstanding the well-understood apprehensions of some negotiators, we are also convinced that a highly-intrusive challenge inspection regime — one that includes access to any site and which ensures that, if it so wishes, the state initiating the inspection process may be represented during it by the presence of an observer — can be made to work without unduly compromising those concerns...

But even when we have satisfactorily resolved the challenge inspection issue, Canada still believes that the verification system for the Convention would require additional measures to be effective — measures that would go beyond those of Article VI and which would enable the international inspectorate to inspect undeclared facilities, but without invoking the full panoply of Article IX — in short, ad hoc verification.

To our minds, ad hoc verification provides the means whereby the international inspectorate can, in a routine manner and with the minimum necessary amount of intrusiveness, periodically "sample" the activities of undeclared facilities and thereby ensure that there are no activities going on at such facilities that would threaten the purposes of the Convention. From this perspective, ad hoc verification should not be seen as a substitute for or an extension of challenge inspection: rather, it complements the regime by providing another needed component to effective verification...

We are convinced that if we can develop a fully effective verification regime — one that incorporates both a rigorous challenge inspection component and an ad hoc verification component — we will have leapt over perhaps the biggest remaining hurdle to the realization of the Convention. There are, as indicated, a number of other major problems that are critical to ensuring the globality and comprehensiveness of the Convention, but we believe that they, too, can be best addressed through a constructive and openminded attitude...

I hope that the foregoing comments and the studies and reports noted will be seen as constructive and concrete demonstrations of my Government's firm commitment to negotiating an effective, total ban on the production, possession and use of chemical weapons. Notwithstanding our disappointment that more was not achieved, we continue to have high expectations that a successful conclusion to our negotiations in the near future is within our grasp.

## Verification Research in Support of a CWC

A major area of activity for EAITC's Verification Research Program is the provision of support to the Canadian delegation to the chemical weapons negotiations at the CD. In addition to drawing on EAITC resources, the Program channels expertise from other federal government departments and from consultants outside the government towards the goal of a CWC. Particularly helpful to the Program during the last two years have been Professor Ronald Sutherland, on leave of absence from the University of Saskatchewan's Department of Chemistry, and Dr. Bruno Schiefer and his staff at the University of Saskatchewan's Toxicology Research

Anyone involved in research will realize that credible work is not produced and distributed overnight. However, 1990 has been a very fruitful year in seeing the conclusion of a number of projects. Canada has already submitted the following major reports to the CD:

- Role and Function of a National Authority in the Implementation of a Chemical Weapons Convention;
- Verification Methods, Handling and Assessment of Unusual Events in Relation to Allegations of the Use of Novel Chemical Warfare Agents;
- Toxicity Determinations and the Chemical Weapons Convention;
- The Chemical Weapons Convention and the International Inspectorate: A Quantitative Study;
- National Trial Inspection at a Single Small-Scale Facility;
- Report on a National Trial Inspection.

The first four of these reports have been distributed to Canadian university libraries and institutes concerned with arms control issues. Researchers can obtain the two reports of trial inspections from the Verification Research Unit of EAITC, 125 Sussex Drive, Ottawa, Ontario, K1A 0G2.