

## **Areas for Further Study**

The foregoing sections have reviewed IAEA safeguards and suggested some "lessons" that might be applicable in other verification contexts, notably a chemical weapons convention. The following paragraphs suggest areas where further research would be fruitful.

1. A system of safeguards integrated across Material Balance Areas, facilities and states presents possibilities for cross-checking. However, deficiencies in the Agency's safeguards systems with respect to the management of shipments of items between facilities and/or from one state to another also exist and should be examined. These could include not only problems in the design of information systems to keep track of such movements but also problems in achieving adequate performance on the part of shippers and receivers.
2. Problems in the specific statistical techniques used by the Agency – e.g., the calculation and use of MUF figures – should be examined. So should the difficulties which the Agency faces in closing materials balances, and the efforts it has made to solve these problems.
3. The Agency's procedure for the evaluation and improvement of its safeguards should be studied. As well, the Safeguards Implementation Reports should be examined to see what sorts of problems they uncover, and particularly those problems that recur.
4. The relationship between bilateral safeguards and multilateral safeguards should be considered. The former may complicate but also may supplement the latter. They may also be a source of political tension.
5. Some thought should be given to the problem of safeguards over exports of chemicals, plant or technology from a party to a chemical weapons convention to a non-party. What items should be safeguarded and what should the character of those safeguards be? Should appropriate safeguards requirements be included in a convention, or worked out within the verification agency, or should they be worked out among principal suppliers, on the models of the NPT and the later Nuclear Suppliers Group?
6. The relationships between the IAEA on the one hand and EURATOM and OPANAL (the governing body for the Treaty of Tlatelolco) on the other should be studied, for guidance on the problems and possibilities of co-ordinating safeguards systems with regional control agencies.