

CHAPTER D

IAEA SAFEGUARDS

Abstracts dealing with International Atomic Energy Agency (IAEA) safeguards have been located in a separate chapter for three reasons. First, although selective on-site inspection is perhaps the predominant verification method in the safeguards system applied by the IAEA, the system depends for its effectiveness as well on a combination of other techniques including records monitoring (plant), short-range sensors (seals and monitoring devices), international exchange of information (reports to an international body), national self-supervision (i.e. a national nuclear materials accounting system) and an international control organization. While IAEA safeguards are not a generic verification type per se, they do comprise a unique, functioning verification system employing a number of verification techniques.

Second, the IAEA safeguards system has been used as a model for proposed international control systems for arms control agreements other than the Nuclear Non-Proliferation Treaty for which the system has primarily been designed. For example, some verification proposals have suggested that a safeguards-like system could be used to monitor a chemical weapons convention. The safeguards system is viewed by many as a precedent for application to other arms control verification problems.

Third, since there are a large number of proposals in this edition of the Compendium, which deal with the safeguards system as a whole, they have been grouped together for easy access.

The IAEA safeguards system is designed to verify the non-proliferation of nuclear weapons. It constitutes the primary verification mechanism of the multilateral Non-Proliferation Treaty (D9(T68)). Two key documents define the safeguards system and outline the relationship between the IAEA and various states (see abstracts D10(I68) and D12(I72)). A series of five booklets published by the IAEA outlines the safeguards system in considerable detail (see abstracts D26(I80), D35(I81), D46(I83), D52(I84), D56(I85)). One notable development in safeguards technology with potential widespread application is an experimental system called RECOVER (Remote Continuous Verification) which is designed to verify that short-range sensors (containment and surveillance equipment including cameras) are functioning properly. RECOVER transmits information on the status of the equipment to a central monitoring authority. Originally intended to supplement the IAEA safeguards system (see, for example, abstract D45(G83)), RECOVER has also been suggested for application in verification of a chemical weapons convention (see, for example, abstract I20(G85)). Abstracts dealing with the RECOVER system are located in several chapters and can be found in the subject index under the heading "SHORT RANGE SENSORS - MONITORING DEVICES - RECOVER".

As mentioned above, safeguards-like systems have been proposed in combination with other methods to monitor arms control agreements other than those dealing with nuclear non-proliferation. These include a comprehensive test ban, a fissionable material "cutoff" and a chemical weapons convention. When safeguards are not the principal verification method in a proposal, the proposal abstracts may appear in other chapters of this volume. However, all proposals dealing with IAEA safeguards can be located using the Subject Index under the heading "ON-SITE INSPECTION - IAEA SAFEGUARDS".