

Arrangements and techniques to safeguard nuclear material

By Albert Legault

Sherlock Holmes has often been referred to as an amateur detective with an incredible nose for finding things out. The International Atomic Energy Agency (IAEA) in Vienna, like Holmes, is involved in detection and surveillance, but there are major differences between them. The first is that the Agency's inspectors are professionals in every sense of the word. There is no room for amateurs where nuclear energy is concerned. A second difference is that the IAEA does not, strictly speaking, have any real power of investigation. The control that exists is owing to the fact that countries voluntarily agree to place their nuclear programs under the Agency's safeguards.

The origin and nature of the nuclear safeguards program, which is periodically discussed by the press, governments and observers, should be underlined. Nuclear safeguards are nothing but a set of legal provisions created because of the need to meet man's nuclear-energy requirements while preventing the diversion of nuclear material to uncontrolled military uses. The signing of the Non-Proliferation Treaty (NPT) in 1968 (it came into effect in 1970) marked the beginning of an international system of nuclear safeguards.

Although both nuclear-weapon and non-nuclear-weapon states may be parties to the treaty, the obligations to be fulfilled by these two categories of country are different, and this makes the treaty discriminatory — in two respects. First, it affirms nuclear inequality between countries. Nuclear-weapon states agree in the treaty not to give — by any means whatever, directly or indirectly — nuclear

weapons to another country that does not already have its own nuclear arsenal.

Discriminatory

Secondly, the treaty is discriminatory in its safeguards provisions. Non-nuclear states that are party to the treaty agree to place their nuclear programs under IAEA safeguards in order to demonstrate their good faith. Nuclear-weapon countries, on the other hand, are under no obligation to do the same. Nothing prevents them, however, from voluntarily placing all or part of their civil nuclear facilities under IAEA control. The United States took this opportunity to make an offer of so-called "voluntary submission" to the IAEA, as did Britain. It is within the realm of possibility that France will take the same course, but at present there is no indication that the Soviet Union intends to make such a move, even though it is a member of the Agency and was the first to insist on strict controls for others.

Although the NPT gave the Agency an important role, it was, in fact, already involved in the implementation of nuclear safeguards. The Agency has, since before 1968, been providing technical assistance in the form of fellowships, promotion of pure and applied research and the transfer of nuclear material. Before the United Nations accepted the NPT in 1968, the Agency was already implementing international safeguards under agreements concluded with more than 20 countries.

Article III of the NPT stipulates that the terms and conditions for implementing the safeguards required for a non-nuclear-weapon state would apply to "all source or special fissionable material in all peaceful nuclear activities within the territory of such State, under its jurisdiction, or carried out under its control anywhere". In other words, the entire nuclear-fuel cycle of a non-nuclear-weapon state signatory to the treaty is placed under the Agency's control. Paragraph 4 of this article specifies that countries must conclude an agreement with the Agency in order to

Dr Legault is professor of political science at Laval University and Director-General of the Quebec Centre of International Relations. A specialist in strategic studies, he has previously contributed articles to International Perspectives on MBFR, on Cyprus and on nuclear policy. The views expressed in this article are those of the author.