Nuclear Safeguards

The International Atomic Energy Agency and World Nuclear Order. LAWRENCE SCHEINMAN. Resources for the Future, Washington, DC, 1987. xviii, 320 pp. Paper, $16.95.

In a large office building on the outskirts of old Vienna, far from the monuments to past glory tourists come to see, there dwells an international organization whose importance is matched by its anonymity. Since 1957, the International Atomic Energy Agency has tried to keep the use of nuclear energy both safe and peaceful. The agency was a product of the American idea of the early '50s that if the nuclear genie could not be put back in the bottle, it should at least be kept under strict international oversight. Rather than nations' being denied material, equipment, and knowledge they might eventually get anyway and use as they saw fit, these would be supplied henceforth through an international body under rigidly controlled conditions, of which the most important was that they should be used only for peaceful purposes. Thus, the new agency was endowed with a combination of promotional and regulatory functions: to help states use nuclear energy for peaceful purposes and thereby deter the risk of the spread of nuclear-weapon capability.

Initially, the emphasis in the agency's work was on its developmental tasks. Increasingly, however, the stress has shifted to its regulatory activities, including the important work on nuclear safety, which since the Chernobyl disaster has received special attention. But the growth in the regulatory side of the agency's program is due in particular to the increased importance attached to its "safeguards" function: the creation and application of measures to verify that states comply with treaty obligations not to use their nuclear programs for the manufacture of nuclear weapons or for other military ends.

In the early days, safeguards served mainly to ensure that supplies made by or through the agency were not put to forbidden use. Over time, safeguards were applied more and more to verify compliance with agreements among states, first in connection with nuclear supplies from one state to another and then increasingly as part of multilateral measures against the spread of nuclear-weapon capabilities to additional countries, such as the Tlatelolco Treaty, which provides for the denuclearization of Latin America, and the Non-Proliferation Treaty (NPT). Thus, as was intended by the agency's founders, the safeguards system has become a major factor in international efforts to deter the spread of nuclear weapons.

Nonproliferation has been a matter of high priority for successive U.S. administrations, and the IAEA has long enjoyed strong American support. This support has weakened, lately, both materially and politically. The results are noticeable in the agency's work and may eventually hurt U.S. interests as well. Its low public profile does not help; the American public, the media, and even the Congress know little about this unique organization and its importance to the United States. Lawrence Scheinman tries hard to change this. No one is better qualified. A long-time student of nuclear affairs, Scheinman has served in the U.S. government and in the Secretariat of the IAEA. He is a prominent member of the bipartisan group of nuclear cognoscenti in the United States who have long helped this country keep its position of enlightened leadership in the international nonproliferation community.

Scheinman starts his thorough, yet agreeably concise, book with an interesting analysis of the nuclear proliferation phenomenon, a short history of the nonproliferation regime, and a description of the measures composing it, including the role played by the agency. This is followed by a well-researched summary of the events leading to the agency's creation. This first part (worth reading by itself, even if one were, unwisely, to ignore the remainder of the book) puts the agency squarely in its nonproliferation framework—an approach fully justified in the light of history and initial intentions and necessary for a proper insight into the agency's true nature, yet one seldom taken in the literature.

The author's experience with the IAEA allows him to present a realistic picture of its structure and working procedures and the problems troubling it. In a discussion with special relevance to the United States, Scheinman cogently deals with what may well be the most serious problem for the agency today: the process of "politicization," whereby governments introduce into the agency's affairs political issues extraneous to its statutory tasks, in apparent indifference to the negative effect this may have on its work. The credibility of safeguards is another potential problem to which Scheinman devotes considerable space. Though giving an excellent exposé of the practical and administrative questions with which the agency must cope in applying safeguards, he is somewhat less clear in discussing the technical factors leading to the determination of the goals to be achieved. But he convincingly makes the point that the effectiveness of safeguards depends largely on how well they are allowed to function, by those who set the agency's mandates—and provide the financial means—and by the states where safeguards are applied. One problem flagged by Scheinman in this context is the inherent struggle for funds between those who emphasize the safeguards function and those who wish to allocate more resources to developmental assistance and who see safeguards as detrimental to their interests.

I was struck by the author's recognition of the connection between the agency's creation and the disarmament questions of that time, a connection habitually overlooked. Even so, the book does not do full justice to some of the disarmament talks of the period, so that some issues that were part of the background against which the agency was set up, and that still play a role, may not be fully clear. Similarly, some of the broader political issues that may confront the IAEA in years to come may be given insufficient attention, notably the question of the implementation of Article VI of the NPT. Many nations consider this article, which provides that nuclear-weapon states should negotiate on nuclear disarmament, as the ne plus ultra of the treaty and thus indirectly as a basic factor in the acceptability of safeguards. Its implementation may determine the outcome of the NPT Review Conference of 1990 and have an impact on the future of nonproliferation and of the agency. In a book that deserves to become a political manual for a future administration, this point might have been made more forcefully.

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Darwin's Early Thoughts

Charles Darwin's Notebooks, 1836–1844. Geology, Transmutation of Species, Metaphysical Inquiries. PAUL H. BARRETT, PETER J. GAUTREY, SANDRA HERBERT, DAVID KOHN, and SYDNEY SMITH, Eds. British Museum (Natural History), London, and Cornell University Press, Ithaca, NY, 1987. x, 747 pp., illus. $75.

During the late 1830s when he was first developing his theory of evolution, Charles Darwin recorded his ideas in a number of notebooks. Most of these notebooks have been previously published in various forms, but now, for the first time, they have all