## THE UTILIZATION OF NUCLEAR ENERGY AND INTERNATIONAL LAW (1984). By Vanda Lamm. Akademiai Kiado, P. O. B. 24, H-1363, Budapest, Hungary. Pp. 156. Price \$ 14.

THIS MONOGRAPH<sup>1</sup> is an excellent addition to the existing literature on the legal regulation of peaceful uses of nuclear energy. It is all the more welcome coming as it does from Hungary, projecting the point of view of one of the well-known East European scholars.

The use of nuclear energy for peaceful purposes is the development of today and an indispensable fact of the life of tomorrow. Hence the imminence of separating the peaceful from the non-peaceful uses, ensuring that the states keep to the former only, and working out of norms for liability if the legal prescriptions are violated.

Vanda Lamm has done just this exercise in this study. The author first very briefly refers to the question of nuclear weapons and the principles of customary and conventional law applicable to them.<sup>2</sup> The observation is made that the debate is not yet concluded if the use of nuclear weapons would be permissible in self-defence<sup>3</sup> and the view held that since no special norm of international law specially prohibits the use of nuclear weapons, the debate cannot be regarded as closed even today. This reviewer wonders if even a literal interpretation would justify this observation, much less an interpretation keeping in view the general purposes of the United Nations and the developments towards humanising the laws of warfare.

The author next gives a brief resume of the legal regulation of the use of nuclear energy, and refers to the Partial Test Ban Treaty (P.T.B.T.) and the Non-Proliferation Treaty, (N.P.T.) amongst others, in this connection. The bilateral agreements for international cooperation in nuclear energy research and utilisation have also been briefly surveyed, besides the ones on liability, transport and other matters.

The development of municipal law to meet the legal problems emerging in connection with nuclear energy research and utilisation, has been referred to, as also the setting up of national atomic energy authorities in the western world as well as in the socialist countries. This coverage, which is often missed in monographs on such subjects, is informative and most welcome.

The terminological dispute, viz., if it is to be called nuclear law, atomic law or atomic energy law, as well as the views on its contents and

<sup>1.</sup> Vanda Lamm, The Utilization of Nuclear Energy and International Law (1984).

<sup>2.</sup> Id, ch. 1.

<sup>3.</sup> Art 51.

<sup>4</sup> Supra note 1 at 18.

its place within the entire legal system, have also been discussed. The views of both western and socialist writers and the basic differences in their approaches have been pointed out.

The unification of the so-called municipal nuclear laws and the role of the agencies which have promoted it, has also been analysed. The differences in theory and practice as well as between the socialist and western approaches have been highlighted. The author rightly holds the view that theoretically the idea of either an independent nuclear law or international atomic law is difficult to accept.<sup>5</sup> This part is essentially conceptual in character.

The problem areas in the use of nuclear energy from the point of view of public international law have next been sorted out, e.g., problems of environmental protection, liability for nuclear damage, international collaboration in the event of nuclear accidents, and physical protection of nuclear material, international control over the peaceful uses of nuclear energy and the like. The author is quite sensitive to the question of systematisation, i.e., as to where these problems would figure in public international law, taking into account, for example, the fact that the problems of the utilisation of nuclear energy for peaceful and destructive purposes are closely linked. Public international law has to respond to as well as assimilate in its doctrine the various new problems that confront it in the wake of scientific and technological developments.

The author gives a resume of the initial attempts to settle international problems concerning the utilisation of nuclear energy.<sup>7</sup> The American and Soviet proposals have been examined and the reasons for failure analysed.

Atomic Energy Agency—its functions, activities, organisation and status—has been dealt with,8 and importance has been given to the safeguard system of the agency in all its aspects.9 This is probably the most incisive and deeply studied aspect. It is really the heart of the matter since a strict and foolproof application of safeguards only can ensure the peaceful uses of atomic energy, and only this can generate the confidence amongst nations for accepting the safeguards. Along with such safeguards have also been examined the regional safeguards systems, as also the problems related to the harmonisation of the two safeguard systems, regional and international.

Some other measures for the peaceful uses of nuclear energy, e.g., control over nuclear exports, physical protection of nuclear material have been examined.<sup>10</sup> These are the problems which are being faced today by nuclear energy producing and exporting countries. The viewpoint of the

<sup>5.</sup> Id. at 27.

<sup>6.</sup> Id. at 28-31.

<sup>7.</sup> Id., ch. 2.

<sup>8.</sup> Id., ch. 3.

<sup>9.</sup> Id., chs. 4, 5.

<sup>10.</sup> Id., ch. 6.

developing countries has also been referred to briefly. The concepts of internationalisation of the nuclear fuel cycle, international storage of plutonium, storage of spent fuel under international management have also been covered. These are all extremely relevant and topical issues. They are going to occupy the central stage in the near future.

The last chapter discusses the problem of peaceful nuclear explosions and their regulation by international law. Vanda Lamm has correctly pointed out that explosive devices used for peaceful explosions are practically the same as those built in nuclear weapons, hence the relevance of the non-proliferation treaty. The author has come out in favour of treaty and does not support India's criticism of N.P.T.<sup>11</sup> A reference to P.T.B.T. and other conventions of a universal character, as also regional treaties like the Tlatelolco Treaty for the denuclearisation of Latin America and to the bilateral treaties, has also been made. The role of I.A.E.A. with respect to development of the norms for peaceful nuclear explosions has been discussed. Some useful suggestions have also been made with regard to the future task of the legislators which is to elaborate the particular rules incorporated in N.P.T. and P.T.B.T. The author has put all his faith on I.A.E.A. for the future. He could hardly be criticised for it, since faith can be built up only in the international regulation of nuclear energy.

Though one may not agree with all that the author has to say on the subject, his contribution has to be distinctly recognised. All the problems involved in international legal regulation have been highlighted, all the progress made thus far at the international, regional and bilateral levels has been succintly referred to, the law (de lege lata) has been analysed and some useful guidelines for the development of the law (de lege ferenda) have been suggested. The East European viewpoint, wherever relevant, has been referred to, as also the perspectives of the developing countries.

For the identification of the problems and up-to-date developments on the subject, this book is going to be relied upon by future scholars for quite some time to come.

It is an indispensable study for all those interested in the problems of legal regulation of peaceful uses of nuclear energy—scholars, statesmen, international administrators and scientists.

S.K. Agrawala\*

<sup>11.</sup> Id. at 136-137.

<sup>\*</sup>Professor and Head, Department of Law, University of Poona, Pune.