

## BOOK REVIEWS

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**The Control of Atomic Energy.** By James R. Newman and Byron S. Miller. New York: Whittlesey House, McGraw-Hill Book Co., Inc., 1948. Pp. xiii, 434. \$5.00.

It would, I think, be difficult to pick a book that one would be more eager to revisit ten years hence. Mr. Miller and Mr. Newman in their study of the Atomic Energy Act of 1946 have taken us as close to the brink of the future as we can decently ask and have stoically resisted the strong invitation to reckless speculation which is made by the subject of atomic energy.

Both of the authors had intimate experience<sup>1</sup> with the drafting of the legislation and are thus able to present for the first time<sup>2</sup> a highly competent, thorough, and informed reading of what may well be one of the major pieces of legislation of our time.

It is a reading which should interest a wide segment of the population. Apart from the immediate and urgent matters of national security and domestic health and safety, the Atomic Energy Act deals in striking fashion with such varied things as government ownership, treason, patents, free speech, and government support of science. Furthermore, it is a rich example of the legislative problem and process, and makes new and challenging demands on the social sciences. It is therefore appropriate that this legislation be studied widely, and to such study this book makes important contribution.

In writing at this early date the authors were faced with an unenviable set of difficulties. First there was the necessity of sufficiently indicating the nuclear physics background essential for any understanding of the problems of control and use of atomic energy; then there was the problem of writing about a complex and interlocking statute so as to preserve accessibility to a layman audience; and finally there was the great lack of experience with atomic energy itself and with many of the devices employed in the legislation.

The book meets these difficulties sensibly. There is a useful introductory chapter defining the control problem and summarizing concisely the basic facts about nuclear fission. There is, by way of appendix, a beautifully lucid statement by Dr. E. U. Condon, together with a glossary of scientific terms, reprinted from Report No. 1211 of the Senate Special Committee on Atomic Energy. Thus the basic scientific terminology of the Act (source material, fissionable material, radioactive by-product, power, device utilizing atomic energy), is made sufficiently intelligible for the purposes at hand. It should be noted that one interesting aspect of the legislation for the student of law is its almost unique dependence upon the physical sciences.

<sup>1</sup> During the drafting of the legislation, Mr. Miller was assistant general counsel for the Office of War Mobilization and Reconversion, and Mr. Newman was counsel for Senate Committee on Atomic Energy.

<sup>2</sup> Four chapters of the book have been given advance publication in periodicals: Control of Information Relating to Atomic Energy, 56 Yale L.J. 769 (1947); America's Most Radical Law, 194 Harper's Magazine 436 (May, 1947); Patents and Atomic Energy, 12 Law & Contemp. Prob. 746 (1947); Freedom of Science in America, 180 Atlantic Monthly 27 (Sept., 1947).

In handling the exposition of the law the authors have been aided by the fact that the statute itself is clearly organized and drafted. It is perhaps a mild criticism of the book that it follows so closely the pattern of the statute; the authors might have been somewhat more adventuresome in grouping their discussion around major themes of the legislation, and might have been a little less patient in the exposition of the more routine provisions.

Also we are tempted to ask that certain additional matters be included. It is true that on occasion there is sharp and effective reference to legislative history, as in the discussion of the Commission's power to set up libraries and information services which was left ambiguous by deletion, during the House debate, of the explicit provision of the Senate Bill. However, since the authors were at an exceptional vantage point to observe the legislative history, a fuller discussion of the legislative background would have been valuable.<sup>3</sup> While the authors are acutely aware of the paramount importance of international control of atomic energy and of the dependence on it of domestic controls, they confine themselves to a brief discussion of Section 8 which explicitly subordinates the domestic legislation to any future international arrangements. Here, we would have been grateful for fuller discussion of the Acheson-Lilienthal Report, the Baruch proposal, and the subsequent UN debates. Finally, the authors appended the British Atomic Energy Act of 1946, enacted a few months after our own. Since the British Act appears both radically simpler and less punitive than the American, a chapter comparing the two, with due allowances for the differences between the British and American problems, would have been welcome.

The American Act deals with three related problems: that of physically controlling the incalculable dangers in the use of atomic energy; that of insuring a socially just exploitation of the commercial possibilities of atomic energy; and that of encouraging further research. It is true that the areas of these problems overlap; thus, the patent regulation while impinging chiefly on commercial use also has its security aspects, and the control of information, while mainly a security matter, has substantial impact on research. The book gives each of these major problems approximately equal attention. The authors in general approve the solutions of the problems of control and commercial utilization; they are less sympathetic with at least part of the approach to research. Throughout, their discussion is sufficiently broad to provoke the reader to reflection on the major social implications of the legislation.

The authors are frequently amused by the paradox that a most conservative Congress enacted with dispatch and enthusiasm a measure which contains, to use their metaphor, "a socialist island." The physical control mechanisms turn on granting the Commission, on behalf of the government, an absolute monopoly of all fissionable material and a virtual monopoly of facilities for the production of fissionable material. The Commission, in conjunction with the President, determines both the production and allocation of fissionable material. Perhaps the single most fascinating feature of the regulation is that at the moment so very few and very scarce materials are in the fissionable category. Whatever the likelihood that materials of greater commercial currency will enter the fissionable category, there can be no final assurance that the universe is ultimately conservative in this respect. There remains therefore the slight but tantalizing possibility of substantial socialization of the American economy by dictate of the physical rather than the social sciences.

<sup>3</sup> Mr. Miller has since reported the legislative history. Miller, *A Law Is Passed—The Atomic Energy Act of 1946*, 15 *Univ. Chi. L. Rev.* 799 (1948).

The authors do an excellent job in delimiting the present boundaries of their "island" and in calling attention to the fact that the Act has invariably effected only the minimum invasion of private property required for security and safety. Thus the regulation of source material, of commercial devices, and of radioactive by-products was made decreasingly stringent. The authors are also appreciative of the important role of the management contract under which Commission facilities are operated by private companies.

Licensing and adjustments of the patent system are the key to the regulation of commercial use. Commercial uses are but hazily foreseeable at the moment and there are size and safety factors which are likely to pose formidable obstacles. In any event it is unlikely that a legislature has ever been asked to legislate on a matter in such complete ignorance. The regulation is accordingly flexible. All devices for the utilization of atomic energy must be licensed by the Commission; patents on them which are "affected with the public interest" are subject to compulsory licensing. No commercial use is authorized until the Commission has first submitted to the President, who forwards it to Congress, a recommendation supported by an elaborate report on the economic as well as the security and safety aspects of the device; if Congress fails to act in ninety days the recommendation then automatically becomes effective. As Mr. Miller and Mr. Newman admiringly point out, "For once the power to obstruct would be on the side of those who supported the innovating program of the Commission rather than on the side of those who wished to maintain the status quo."

It should be noted that the licensing power will relate primarily to safety factors and to the possible scarcity of fissionable materials, and that compulsory licensing of patents does not, of course, eliminate financial rewards for inventiveness. Hence these provisions are scarcely within the socializing range of the Act, nor can one disagree much with the authors' conclusion after their excellent review of the patent provisions: "Upon analysis, this painstakingly fair and even generous series of provisions seems scarcely to merit the extravagant abuse that has been directed against it."

The Act contains a series of interlocking provisions with respect to research. On the one hand, research is specifically exempted from most of the control provisions, and Section 3 is a directive to the Commission to encourage and sponsor research over a wide field by various financial aids, and to conduct research itself. On the other hand, Section 10 dealing with control of information raises serious obstacles for the conduct of research. The book is at its best on both aspects of the problem. The authors with vigor and imagination have sketched a picture of the extent to which research in America today is directed by decisions on a commercial basis and have attacked with gusto and success the bogey that federal aid to research will jeopardize the freedom of science. It is here that the Act touches on a matter of fundamental concern to American science, and its success will afford a compelling argument for a national research program.

The book asks the right question concerning the control of scientific information, namely, whether we will not lose more in the deterring of science than we will gain in security. Here the argument echoes the one made some three hundred years ago in the *Areopagitica* on the licensing of books as a discouragement to the pursuit of truth, albeit some of the Miltonic thunder is missing. And the authors would appear to in-dorse heartily the wisecrack of Dr. Leo Szilard that there is no secret and we intend to keep it.

A critical feature of the secrecy provisions is their failure to supersede the Espionage Act. The authors make a detailed and informative study of the overlap between the two laws and argue convincingly that this is a serious defect in the new legislation. We are told: "If, therefore, Section 10(b)(6) is so construed that the Espionage Act remains in force for private research as well as governmental activities, the scientists have, indeed, sustained a crushing defeat and the more moderate and enlightened information provisions of the Atomic Energy Act are little more than pietisms." As an offsetting factor, however, the book reminds us that the Act does a relatively discriminating job, having made a bad initial assumption as to the desirability of control; for the ordinary nuclear scientist its chief impact may be the inconvenience of securing clearance from the Commission on borderline publication questions and the awkwardness of being a bit skeptical of his friends.

We are inclined in the end to accept the authors' estimate that "the information section of the Atomic Energy Act is principally significant as symptom and warning." It seems probable at the moment that the chief discouragement of scientific inquiry will come not from the Act's additions to the law of treason and the catalogue of capital crimes, but from procedures outside the scope of the Act, such as those of Congressional investigating committees, and from the emergence of an unfortunate technique of government by defamation.

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**The United Nations.** By Herbert Vere Evatt. Cambridge: The Harvard University Press, 1948. Pp. 154. \$2.50.

The United Nations Organization from its very inception has been criticized as being inherently incapable of keeping the peace.<sup>1</sup> Dr. Evatt in his book, which is a revision of the 1947-48 Holmes lectures delivered at Harvard Law School, does not attempt to meet this criticism. He accepts the institution as given, traces its formation, describes its structure and operation, and makes proposals for interstitial reform. He speaks with distinction and with special authority derived from his important role in the formation and operation of the organization. His book, which is fresh and non-technical, should interest a wide audience.

Nevertheless, there are several aspects of Dr. Evatt's work which invite criticism: 1) He tends to overstate the importance of the changes in the Dumbarton Oaks Proposals which were made at San Francisco. 2) His optimism about the organization's prospects, although perhaps an occupational necessity, is not justified either by an a priori analysis of the Charter<sup>2</sup> or an objective examination of the organization's record.<sup>3</sup>

3) He gives excessive attention to the formal veto power within the Security Council and formal methods for circumventing it, but does not give enough attention to the

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<sup>1</sup> See Schuman, *The Dilemma of the Peace-Seekers*, 39 *Am. Pol. Sci. Rev.* 12 (1945); Borchard, *The Impracticability of "Enforcing" Peace*, 55 *Yale L.J.* 966 (1946); Meyer, *Peace or Anarchy* (1947). Although Mr. Schuman dealt with the Dumbarton Oaks Proposals his argument is equally applicable to the Charter.

<sup>2</sup> Note 1 *supra*.

<sup>3</sup> See Hamilton, *The United Nations at Work*, 37 *Yale Rev.* 88 (1947).