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THE LEGAL ASPECTS OF THE DEVELOPMENT OF ATOMIC ENERGY IN THE UNITED KINGDOM

C. J. HIGHTON*

The United Kingdom Atomic Energy Authority was constituted as a public corporation in 1954 by the Atomic Energy Authority Act.¹ The Government had decided in the previous year that the atomic energy undertaking, then in the hands of the Minister of Supply, should be transferred to a non-departmental organization and a committee of three under the chairmanship of Lord Waverley had been appointed to devise a plan for the transfer and to work out the most suitable form for the new organization. The committee fulfilled their task with admirable clarity,² but many legal problems arose in drafting the bill, which related to matters beyond the committee's terms of reference.

At the time much of the atomic energy project was still subject to security restrictions. Apart from the medical, commercial and research uses of isotopes, the project still bore a predominantly military imprint and there was little public awareness of what atomic energy was all about, except that the atomic bomb was a very lethal thing. This had two results in shaping the bill; first that it was necessary to secure that the various security safeguards which had protected the secrets of the project in Government hands should continue to apply after the transfer to the Authority; and secondly that there should be some relief from civil controls with which a corporate body owning land and carrying out a programme of research and industrial development would normally be expected to comply.

It would obviously have invited comment if the Government had put forward a bill which gave the Authority legal powers indistinguishable from those enjoyed by government departments. On the other hand, there were some matters in which it was essential, and others in which it was desirable, to equate the Authority's position to that of a government department. For example, the Official Secrets Acts³ define a "prohibited place" in terms of land belonging to Her Majesty; in order that a Secretary of State could, when required, declare premises of the Authority where any secret work was carried on to be a prohibited place it was necessary to provide that for the purpose of the Official Secrets Acts the Authority's premises should be

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1. 1954, 2 & 3 Eliz. 2, c. 32.

2. CMD. No. 8986 (1953-54 Session, Atomic Energy Project).

3. Official Secrets Act, 1911, 1 & 2 Geo. 5, c. 28 § 3, as amended by Official Secrets Act, 1920, 10 & 11 Geo. 5, c. 75, 1st Schedule.

deemed to be "premises belonging to or used for the purposes of Her Majesty." Moreover, this provision itself involved a further and rather more far reaching provision, because many statutes covering a wide variety of subjects give powers of entry to private property to a large number of officers of central and local government and of statutory undertakings. None of these powers had previously enabled persons to have access to property covered by the Official Secrets Acts because such property had either belonged to the Crown (and was accordingly exempt from the operation of the enactments), or else the Crown had been able by military or police control to exclude access. It was, therefore, provided that no person was to have a right of entry to premises of the Authority which had been declared to be a prohibited place, except a constable or an officer of the Customs & Excise or Inland Revenue, acting in the execution of his duty as such, or an officer of any government department specially authorized by a Minister of the Crown.

Subsection (4) of section 5 of the act is of interest as an example of the way in which public ignorance of atomic energy technique has affected the law. In the United Kingdom the discharge of industrial waste is subject to great numbers of enactments aimed at controlling the toxicity of the discharge and its effect upon public health. The subsection reads:

The following provisions shall, for the period of seven years beginning with the day of the passing of this Act, have effect as respects waste discharged (in whatever form) on or from any premises occupied by the Authority—

- (a) no radioactive waste shall be discharged otherwise than in accordance with authorisations to be given by the Minister of Housing and Local Government and the Minister of Agriculture and Fisheries, after consultation, in each case, with such local authorities, river boards, local fisheries committees or other public or local authorities as appear to the Minister in question to be proper to be consulted by him;
- (b) the said authorisations may be given subject to compliance with such conditions and requirements as the Minister in question thinks fit;
- (c) any person authorised in that behalf by either of the said Ministers may enter and inspect such parts of any premises occupied by the Authority and take or cause to be taken such samples of waste which is being discharged or awaiting discharge thereon or therefrom as may appear necessary for ascertaining whether any breach of any such condition or requirement is or is likely to be committed;
- (d) for the purposes of any statutory provision conferring or imposing powers or duties on any local authority, river board, local fisheries committee or other public or local authority (and, in particular, for the purposes of the Public Health Acts, 1936 and 1937, the Rivers (Prevention of Pollution) Act, 1951, the Salmon and Fresh Water Fisheries Act, 1923, the Sea Fisheries Regulation Act, 1888, and any corresponding enactment in force in Scotland) all waste discharged

on or from any premises occupied by the Authority shall be conclusively presumed not to be radioactive to any significant extent:

Provided that Her Majesty may by Order in Council (which shall be subject to annulment in pursuance of a resolution of either House of Parliament) abridge or from time to time extend the said period of seven years, and the preceding provisions of this subsection shall have effect accordingly.

For the avoidance of doubt, it is hereby declared that the restrictions imposed by this subsection on the Authority are in addition to and not in derogation of their duty under the last preceding subsection, and that the presumption required to be made by paragraph (d) of this subsection operates only for the particular purposes mentioned in that paragraph.

In the application of this subsection to Scotland, references to the Secretary of State shall be substituted for references to the Minister of Housing and Local Government and the Minister of Agriculture and Fisheries.

The reason for this subsection was not only to exclude persons who had not been security cleared from obtaining information about the detailed nature of effluent (which might have enabled them to make accurate assessments of the nature of secret work carried on) but also to provide a means of regulating the radioactivity of the waste discharged by the Authority which would have been quite beyond the powers of the various bodies who are concerned with the toxic and deleterious effects of ordinary waste.

Although the life of the subsection is limited to seven years (with power to extend it by a resolution of both Houses of Parliament) it seems possible that with the large scale use of nuclear energy for generating electricity and for other purposes some permanent provision on these lines will be adopted to regulate the discharge of radioactive waste from commercial establishments. It will be noted that in England and Wales separate authorisations of two ministers are required as contrasted with the single authorisation of the Secretary of State for Scotland. In practice the two ministers work closely in touch with one another in granting the Authority their authorisations and so far the authorisations from each minister have been in identical terms. The declaration which is inserted in this subsection "for the avoidance of doubt" refers to the very important provisions of subsection (3) of section 5. This is as follows:

It shall be the duty of the Authority to secure that no ionizing radiations from anything on any premises occupied by them, or from any waste discharged (in whatever form) on or from any premises occupied by them, cause any hurt to any person or any damage to any property, whether he or it is on any such premises or elsewhere.

This subsection imposes an absolute liability on the Authority in respect of hurt to persons and damage to property arising from radioactivity which the Authority allow to escape. The rule in *Rylands v.*

*Fletcher*⁴ would have fallen short of the desiderata in three respects: it would not have covered the Authority's own staff; it would not have covered the stranger within the Authority's gates; and it would have left the position uncertain where the release of radioactivity was due to the intervention of some third party or to some act of God which the Authority could not reasonably have foreseen. Parliament thought it best that the safety standards in this new field of human activity should be set as high as possible and should allow no exceptions (apart from the contributory negligence of the victim himself) which might deprive the injured person or the owner of damaged property of compensation.

The Government announced in February 1958 its intention to promote legislation for the control and safeguarding of nuclear reactors in the United Kingdom and to secure that the operator of a reactor should be subjected to the same absolute liability as the Authority, but that the liability would be limited to £5 million, which is estimated to exceed the maximum amount of damage to life or property which might reasonably be expected to be caused in any single reactor accident, short of a major catastrophe. The operator will be required to show assets to cover this amount or else to insure. The draft bill has not yet been published,⁵ but it seems clear that the wording of section 5 (3) of the act of 1954 or something very like it will appear again in the statute book. It may, therefore, be interesting to describe how this burden of absolute liability has been carried in practice during the past four years.

In the first place the standards of safety and health precautions which had been established by the Ministry of Supply were high in relation to ordinary commercial practice in the United Kingdom and they have been maintained by the Authority. Responsibility for the safety of operations is vested in the head of each separate establishment through the normal executive chain of command, and he is ultimately responsible to the Authority for this. To assist him in his duties, however, there are Health and Safety staffs (each under a Health & Safety Manager of high scientific calibre) at each establishment and they are responsible for advising him in this field. For this purpose they have complete freedom of access to all the processes in the factories concerned and to documents as necessary. They are usually members of the management panels of the works in question. The regular medical examination of employees who are exposed to any degree of radioactivity enables many ordinary illnesses to be discovered and remedied at an early stage.

4. [1868] L.R. 3 H.L. 330.

5. The Nuclear Installations (Licensing and Insurance) Bill was introduced into the House of Lords on October 29th, 1958.

Claims in respect of damage to property have been made in respect of the accident at one of the two Windscale piles in October 1957. These piles were air cooled and the effect of the accident was that a relatively small quantity of radioactive iodine 131 escaped through the filters on the stack. The deposit of this isotope (which has a half life of 8 days) on land lying some 20 miles down wind of the chimney was not sufficient to have any harmful effect on crops or livestock, but milk from cattle grazing in the fields was found to be contaminated to an extent greater than 0.1 micro curie per litre. The Ministry of Agriculture in consultation with the Medical Research Council and the Authority's technical advisers decided that although this milk would present no hazard to children and adults, it might be dangerous to babies in arms, who mainly depend on cow's milk for their nourishment. Accordingly it was decided that the milk should be banned from human consumption for a few weeks. Unfortunately it would have been impracticable to store the milk or to devote it to cheese making, so it had to be thrown away. The administrative and financial arrangements were greatly simplified owing to the fact that the wholesale collection and distribution of milk in Great Britain is almost entirely in the hands of a nationalised organization, the Milk Marketing Board, so that the Authority were able to deal direct with the Board in paying for nearly all the milk. The cost of the Board's milk was just under £59,000. In addition, claims amounting to about £230 were paid to eleven farmers who either sold their own milk by retail or used it for dairy purposes. A claim for some £1,500 was paid to a dairy firm to compensate for their loss of profits.

Other claims which have been settled include cases where the prices obtained for milch cows put up for sale by auction during the period of the milk ban were some few pounds less than the prices which would normally have been expected; one case where the cattle had been sent to a distant market where the attendants had refused to handle them because they supposed them to be radioactive, so that the beasts could not be sold and had to be taken back again; a claim in respect of some cabbages for which there was no market immediately after the accident.

The fact that the Authority so far have virtually had a monopoly in the field of nuclear energy in the United Kingdom perhaps explains why there has been relatively little public interest in the legal problems which will present themselves when the use of atomic energy is more widespread. There has been nothing approaching the amount of discussion on this topic which has taken place in the United States. For example, so far as I am aware, no difficulty has arisen in practice about the possible liability of contractors to the Authority in respect of any escape of radioactivity which might be at-

tributable to negligence in the manufacture of the materials supplied for incorporation in reactors. It is only now, when the commercial uses of atomic energy are about to commence, that the general public are beginning to become aware of the problems likely to arise and the publication of the bill to give effect to the proposed legislation mentioned above is awaited with great interest.