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policy, and intended donee beneficiaries of the policy have been unsuccessful in an attempt to collect damages from a negligent agent.

Court and analytical authorities have obscured the two theories of liability and failed to distinguish their characteristics. The fact that the remedies coexist should be kept in mind so that pleading and defending will proceed on a clear understanding of their divergent consequences. Seemingly the courts are becoming more aware of the distinction. Probably the lack of statutory coverage will continue because of the near impossibility of providing for all possible contingencies arising in the field.

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INTERSTATE COMPACTS AS A DEVICE TO DEVELOP AND REGULATE ATOMIC ENERGY*

When the Congress adopted the Atomic Energy Act of 1954,[1] releasing the atom from federal monopoly and inviting the division of regulatory and control functions between the federal government and the states, the gates were opened for large-scale participation by private industry in the new technology.[2] It was natural, therefore, that the states should begin to view with awakened interest the role which they are to play in the development and regulation of this new source of energy. However amorphous the role of the states may be as yet, some preparation is being made to accept the responsibilities which will devolve upon them. At the 1956 Southern Governors' Conference[3] the Southern Regional Advisory Council on Nuclear Energy was established "to deal with the feasibility of united action in the development of industrial opportunities in the South through nuclear energy, research and otherwise." This Council, after extensive

* This note was originally prepared as a research paper for the seminar in Legal Problems of Regional Economic Development at Vanderbilt University School of Law.

1. 68 Stat. 921, 42 U.S.C. §§ 2011-281 (Supp. IV, 1954). For a complete bibliography on atomic energy and law, see Murphy, *Atomic Energy and the Law: A Bibliography*, 12 VAND. L. REV. 229 (1958).

2. On the pre-emption problem see Cavers, *Legislative Readjustments in Federal and State Regulatory Powers over Atomic Energy*, 46 CALIF. L. REV. 22 (1958); Dunlavey, *Government Regulation of Atomic Industry*, 105 U. PA. L. REV. 295 (1957); Palfrey, *Atomic Energy: a New Experiment in Government-Industry Relations*, 56 COLUM. L. REV. 367 (1958).

3. Member states are Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

investigation and study,[4] recommended a nuclear energy compact among the Southern States encompassed within the Southern Governors' Conference and a proposed Nuclear Interstate Compact (NIC) was drafted and presented for state legislative approval early in 1959.

The purpose of this note is to assess the suitability of the proposed compact as a tool of regional development and regulation of atomic energy.[5]

INTERSTATE COMPACTS—THE CONSTITUTIONAL BASIS

A compact is a formal and contractual agreement between two or more states, similar in content, form, and wording to an international treaty, and usually embodied in state law in an identifiable and separate document called the "compact."[6] Although this is not the place for an extended study of the compact clause of the Constitution, it does seem appropriate to glance briefly at some of the more important historical and legal implications of this sub-national, yet supra-state device.[7]

The Constitution makes provisions for two methods by which states may adjust or settle problems transcending state lines. One is the grant to the Supreme Court of jurisdiction over controversies between two or more states,[8] and the other is the authorization for interstate compacts with the consent of Congress.[9] The compact clause was taken over essentially from the Articles of Confederation.[10] In turn, the

4. At the request of the council an exhaustive study was made of the feasibility of a nuclear interstate compact by the Southwestern Legal Foundation and published in September, 1958. See SOUTHWESTERN LEGAL FOUNDATION, THE FEASIBILITY OF AN ATOMIC ENERGY COMPACT FOR THE SOUTHERN STATES (1958). The study concludes that such a compact is feasible, but avoids any discussion of political considerations.

5. A somewhat different approach to an interpretation of the problems may serve to justify the reopening of discussion invited by the Southwestern Legal Foundation study.

6. See THURSBY, INTERSTATE COOPERATION 12 (1953); Weinfield, *What did the Framers of the Federal Constitution Mean by Agreements or Compacts?*, 3 U. CHI. L. REV. 453 (1936).

7. Perhaps the best known study of interstate compacts is Frankfurter & Landis, *The Compact Clause of the Constitution—A Study in Interstate Adjustments*, 34 YALE L. J. 685 (1925). Useful recent studies are THURSBY, INTERSTATE COOPERATION (1953) and ZIMMERMAN & WENDELL, THE INTERSTATE COMPACT SINCE 1925 (1951). See also COUNCIL OF STATE GOVERNMENTS, INTERSTATE COMPACTS 1783-1956 (1956).

8. U.S. CONST. art. 3, § 2.

9. "No state shall, without the consent of Congress . . . enter into any Agreement or Compact with another state, or with a foreign power . . . ." U.S. CONST. art. 1, § 10.

10. Provisions as to state agreements with foreign powers and as to interstate agreements were incorporated in the Articles of Confederation as follows: "No state without the consent of the United States in Congress assembled, shall . . . enter into any conference, agreement, or alliance or treaty with any King, prince or state . . . . No two or more states shall enter into any treaty, confederation or alliance whatever between them, without the consent of the United States in Congress assembled, specifying accurately the purposes for which the same is to be entered into, and how long it shall continue." ARTICLES OF CONFEDERATION, art. VI.

predecessor section in the Articles was a codification of the Colonial practice of resolving boundary disputes by means of joint commissions whose decisions were subject to approval by the Crown. It has been said that the element of Congressional consent for compacts between states represents the "republican transformation of the needed approval by the Crown."[11] The compact clause of the Constitution does not compel, but rather contemplates permissive agreements, albeit conditionally, to solve certain problems which project beyond state lines and yet may not call for, nor be capable of, national treatment.[12]

There have been some interstate agreements or compacts to which Congress has not explicitly assented, but nevertheless because of their form, manner of negotiation, and subject matter, seem to fall clearly within the compact clause.[13] The language of the Constitution, however, is apparently all-inclusive, and there is little question that Congress can affirmatively prohibit or set conditions on the making of interstate compacts.[14] There are three general categories of federal legislation affecting compacts which satisfy the Constitutional restriction. These are "prior consent legislation,"[15] "authorizing legislation,"[16] and "consent legislation."[17] Although Congress may consent by legislation to compacts, it may not alter the terms of a compact, since it is a contract between the states, which only the signatory parties may alter. If Congress insists on changes as a condition to granting

11. Frankfurter & Landis, *supra* note 7, at 694.

12. It has been suggested that there are three major occasions on which interstate compacts will surpass their alternatives in a satisfactory working-out of the problems at hand. They are: (1) when Congress for some reason fails to act, even though there may be no constitutional obstacles to such action; (2) when the weight of constitutional provisions and judicial interpretation have proved so heavy as to prevent effective action either by federal or state legislatures; and (3) for cooperative state action on a regional basis in situations where action by the federal government is specifically barred. Perry, *Little Americas: Innovations in Government by Interstate Compacts,* 25 SURVEY GRAPHIC 36 (1936). See also Donovan, *State Compacts as a Method of Settling Problems Common to Several States,* 80 U. PA. L. REV. 5 (1933).

13. Virginia v. Tennessee, 148 U.S. 503 (1893); Fisher v. Steele, 39 La. Ann. 447, 1 So. 882 (1887).

14. The practice of permitting some agreements to be made without Congressional consent has been criticized on the ground that the potentialities of an interstate bargain of apparently innocuous nature may thus escape Congressional attention. See Note, *Legal Problems Relating to Interstate Compacts,* 23 IOWA L. REV. 618, 624 (1938).

15. Here Congress grants its consent to a compact without requiring later that any specific agreement be referred to Congress, Wharton v. Wise, 153 U.S. 155 (1894).

16. This legislation authorizes the states to negotiate a compact subject to later federal approval. See, *e.g.,* The Water Pollution Control Act of 1948, 62 Stat. 1155, 33 U.S.C. § 466a(b) (1952).

17. Such legislation consists of an enacting clause, consenting to the compact, the text of the compact, and provisions protecting federal interest or attaching conditions to the approval. State *ex rel* Baird v. Joslin, 116 Kan. 615, 227 Pac. 543 (1924). For a discussion of the congressional consent doctrine and the instances of its application, See Zimmerman & Wendell, *Congressional Consent to the States,* 22 STATE GOV'T 116 (1949).

its consent, the compact must be altered by the mutual consent of the states and re-ratified by the signatory states.[18]

COMPACTS—EXPERIENCE TO DATE

The so-called compact clause has been repeatedly used for an array of interstate problems. Frankfurter and Landis in 1925 set forth a detailed catalogue, including: compacts sanctioned by Congress[19]; agreements which took effect without congressional consent, and resulting litigation; and proposals for agreements which were never concluded. Their findings were that the Constitutional machinery of interestate compacts had been utilized in the following problem areas: boundaries and cessions of territory, control and improvement of navigation, penal jurisdiction, uniformity of legislation, interstate accounting, conservation of natural resources, utility regulation, and taxation. They concluded that the compact device had great potential which had, by no means, yet been realized.[20]

An examination of the existing compacts suggests that they are capable of classification on the basis of common elements in the problems they meet. Does the settlement of boundary disputes have anything in common with utility regulation, or control and improvement of navigation with the conservation of natural resources? In these cases the problem in each instance is an existing and well-defined one. Moreover, the problem, even though clearly identified is not amenable to solution by litigation, individual state action, or centralized control by the federal government. Rather, there is among the compacting states a homogeneous interest in resolving the problem by conference and friendly cooperation and in having this resolution stated precisely. Finally the class of problems having these characteristics is such that it is capable of being completely resolved and laid at rest by the agreement; even though there may remain some purely routine and ministerial details of administering the method of solution adopted by the agreement, there remain no elements of the original problem itself. It is, therefore, questionable whether the interstate compact is adaptable to problems of a dynamic nature and involving the continuous exercise of discretion.[21]

The first period of awakened interest in compacts, which elicited the study by Frankfurter and Landis, ended in the early 1930's.

18. On the question of the relation of interstate compacts to the obligation of contracts clause of the Constitution, see THURSBY, *op. cit. supra* Note 6, at 38.

19. Frankfurter & Landis, *supra* note 7, at 730.

20. *Id.* at 729.

21. At first blush the Oil and Gas Compact, which is administrative in nature, might be thought to rebut this conclusion, but there the problem and its solution were clear and have remained static, comparatively speaking. The administration has been therefore pretty much mechanical.

Abortive attempts during the depression to solve complex labor problems[22] by interstate agreements seemed to give warning that the compact as a form was inherently limited and for a time threatened to relegate it to its narrow perch atop disputed boundary lines. But even as these failures brought compacts into disfavor, arrangements for the interstate control of crime and for cooperative protection of oil and gas resources were demonstrating that interest in compacts was not necessarily so restricted.[23] When Frankfurter and Landis wrote, the problem that seemed most important to them was how to free the states from the limiting decisions of the Supreme Court under the commerce clause, and they seized upon the compact clause as a possible solution. The rough treatment given New Deal legislation[24] by the Supreme Court prior to 1937 elicited the same response. Now that many of these judicial restraints have been removed, the compact device has not withered but, on the contrary, shows signs of becoming a major device for the administration of multi-state facilities and functions.

COMPACTS AND REGIONAL DEVELOPMENT

One of the most striking facets of the evolving uses of interstate compacts since the Frankfurter-Landis study has been the move toward the utilization of interstate agreements by areas which geographically, economically, and politically share the same or similar interests.[25] This development has been hailed by some as a "new Federalism," but severely criticized by others as undesirable.[26] The present use of the interstate compact in connection with regional interests derives its vitality from two beliefs. One is that the constituent states within a homogeneous region should work together for their common good; the other is the belief of many "states-rightists" that it is a device to counter the apparently ever-growing power of the federal government.[27]

22. One such attempt was an interstate agreement entered into by New Hampshire, Massachusetts, and Rhode Island for the purpose of obtaining uniform minimum wage standards. The failure of the compact may be attributed largely to the unwillingness of certain states to surrender competitive advantages which they enjoyed as a result of cheap labor.

23. These new administrative compacts were almost immediately criticized as being ineffective in bridging interstate competition and as being less desirable than federal action. See, *e.g.*, Clark, *Interstate Compacts and Social Legislation*, 50 POL. SCI. Q. 502, 516 (1935); Spengler, *The Economic Limitations to Certain Uses of Interstate Compacts*, 31 AM. POL. SCI. REV. 41 (1937).

24. *E.g.*, United States v. Butler, 297 U.S. 1 (1936); Schecter Poultry Corp. v. United States 295 U.S. 495 (1935).

25. See, *e.g.*, McDougal, *Regional Planning and Development: The Process of Using Intelligence Under Conditions of Resource and Institutional Interdependence for Securing Community Values*, 32 IOWA L. REV. 197 (1947); Mauck, *Interregional Relations*, 207 ANNALS 124 (1940).

26. See Spengler, *The Economic Limitations to Certain Uses of Interstate Compacts*, 31 AM. POL. SCI. REV. 41 (1937).

27. *Quaere:* Is this a qualitatively efficient use of interstate compacts? Social

Perhaps the most spectacularly successful of the regional compacts has been the Interstate Compact to Conserve Oil and Gas.[28] Since the proposed Nuclear Interstate Compact is apparently patterned after that compact, an inquiry into the reasons for its success is important in assessing the merits of the nuclear compact.[29]

The ostensible reason for the existence of the Oil and Gas Compact was that the oil industry found itself overburdened with success in finding more oil than could be currently used, transported, or consumed[30]—in fact the very name of the compact is the best clue to its purpose. To effect its purpose the compact did two things: it required each compacting state to enact within a reasonable length of time, or to continue to keep in force, effective conservation laws and to provide stringent penalties for the violation of such laws; secondly, it created a commission which was authorized only "to recommend . . . measures for the maximum ultimate recovery of oil and gas."[31] Most of the early observers were extremely pessimistic of the compact's chances of effecting its stated purpose. Despite its inauspicious beginnings, it is the consensus among observers that it has been successful in accomplishing its purpose.[32]

Three factors largely explain the coming to fruition of the hopes of the optimistic draftsmen of the Oil and Gas Compact. First of all, since the conservation of this natural resource has a demonstrable relation to the national welfare, Congress cooperated and supported the compact by prohibiting the shipment in interstate commerce of oil

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control cannot usually be made to succeed unless governmental action coincides with the geographical extent of the economic or social problem. It therefore seems undesirable to utilize compacts as a mere expedient to circumvent decisions of the Supreme Court or as an alternative to more effective national action.

28. For the text of this compact, see U. S. CODE CONG. & ADM. NEWS, 84th Cong., 1st Sess. 426 (1955).

29. *Cf.* Leach, *The Interstate Oil Compact: A Study in Success,* 10 OKLA. L. REV. 274 (1957).

30. Thompson, *Fifteen Years of Accomplishments of the Interstate Oil Compact Commission,* 9 THE INTERSTATE OIL COMPACT QUARTERLY BULLETIN 10 (1950). See, *e.g.,* Burton v. Miller, 169 Ark. 740, 276 S.W. 999 (1925); Crosson v. Lion Oil & Refining Co., 169 Ark. 561, 275 S.W. 899 (1925).

31. The Commission, which is composed of one representative from each member state, has only powers of recommendation and investigation and no independent authority of enforcement.

32. As recently as 1953 it could be said that a number of federal officials, including certain members of the Senate, regarded the Commission as primarily a price-fixing and price-maintenance device controlled by the major companies to that end. Leech, *supra* Note 29, at 286. This suspicion became strong enough in 1955 to result in the addition of an amendment to the resolution by which approval was granted for the extension of the Compact to September 1, 1959. This amendment requires the attorney general to make an annual report to Congress as to whether in his opinion the activities of the states have resulted in a violation of the anti-trust laws. S.J. Res. 38, 84th Cong., 1st Sess. (1955). See also Burck, *World Oil: The Game Gets Rough,* FORTUNE, May, 1958, p. 125. *But see* O'Connor, *The Role of Market Demand in the Domestic Oil Industry,* 12 ARK. L. REV. 342 (1958).

produced in excess of that allowed by the state regulatory agencies.[33] Secondly, there was the realization that adherence to the recommendations of the compact commission, in light of the seriousness of the situation, was the only alternative to federal control—an event uniformly distasteful to the industry. The urgency of conserving this resource basic to the economic welfare of the compacting states, when added to the desire to avoid federal control, created a climate of fruitful cooperation. But ultimately this compact was directed to a single and readily discernible purpose—the restriction of the supply of the commodity, in the economic sense, in order to achieve a higher market price—and this gives it its cohesive purpose.

In assessing the regional Nuclear Interstate Compact, these three questions should serve as reasonably effective tests in gauging its merits. Stated simply they are as follows: (1) Does the development and control of atomic processes involve more than the one final resolution of competing claims in an agreement binding the parties, such as a boundary dispute? (2) Are the basic issues of development and control of atomic processes amenable to resolution by mere uniformity in statute and procedure?[34] (3) Is there a unitary and pervasive homogeneous interest among the parties such as the restriction of supply of a commodity?[35] It is submitted that if any of these conditions are not met, that area of the development and regulation of nuclear energy is not a fit subject for treatment in a Nuclear Interstate Compact.

In the first place it should be noted that, under the terms of the proposed NIC, the compacting states may dissever themselves from the development aspect of the compact and participate in the regulatory phases only. This seems to be a dubious provision because of the necessary connection between development and regulation, especially in an industry in which the technical and economic implications are as yet unknown. The importance of the effect of development upon regulation is equalled only by that of regulation upon development.

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33. An earlier attempt to solve this problem through § 9 (c) of Title I of the National Industrial Recovery Act of 1933, ch. 90, § 9 (c), 48 Stat. 200, was held to be an unconstitutional delegation of legislative powers. Panama Refining Co. v. Ryan, 293 U.S. 388 (1935). The ensuing chaotic condition was remedied by the so-called "Connally Hot Oil Act," 49 Stat. 30 (1935), 15 U.S.C. § 715 (1952).

34. See Stevens, *Uniform Corporation Laws Through Interstate Compacts and Federal Legislation,* 34 MICH. L. REV. 1063 (1936).

35. The National Resources Committee has concluded that a compact is not suitable "when the solution demands the establishment of independent machinery over and above the separate state departments; and when independent planning and autonomous execution are clearly indicated." NATIONAL RESOURCES COMMITTEE, REGIONAL FACTORS IN NATIONAL PLANNING AND DEVELOPMENT 51 (1935). See also DIMOCK & BENSON, CAN INTERSTATE COMPACTS SUCCEED? 14 (Public Policy Pamphlet No. 22) (1937).

Industrial utilization of atomic energy falls as of now into two broad categories—power, test engineering, and research reactors; and the use of radioisotopes in agriculture, medicine, research, and education. Since nuclear-generated power is not cheap and since the Southern states have generally an abundant supply of cheap fossil fuels and well-developed water power resources, the immediate prospects for nuclear power seem much less promising in the South than in other regions.[36] Many power companies operating in the South are, however, active in nuclear power development.[37]

Certainly the states have, or should have, a vital interest in obtaining for their citizens the fruits and profits from the new industry and indeed they are demonstrating this interest.[38] The locating of test engineering reactors in a state, the use of power reactors, and an enlightened program in the use of radioisotopes are bound to attract other atomic industry, and perhaps even more importantly, concomitant industries which will spring up around this new source of energy. The problem then is how the states, particularly in the South, are to realize their share of these new economic benefits.

The concept of an interstate compact as a device to advance regional economic development is a new one, at least in the area of attracting industry.[39] Although clearly the states of the Southern Conference have many political, cultural, and economic ties, there are serious diversities. For example, Florida is now evidencing an interest in nuclear generated power,[40] while Kentucky, with its coal industry, will undoubtedly be one of the last states in the Union to consider nuclear power as necessary, or even desirable. Again, however identical the interests of Georgia and Alabama, and however carefully the compact agency might study the best possible location for a test engineering reactor, a recommendation that it be placed in

36. See SUGG, NUCLEAR ENERGY IN THE SOUTH 6 (1957).

37. Several companies have contributed money and personnel to the Dow Chemical-Detroit Edison nuclear power study group and to Atomic Power Development Associates, Inc., which replaced it. The Florida Nuclear Power Group, comprised of the Florida Power Corporation, the Florida Power and Light Company, the Tampa Electric Company, the Allis-Chalmers Company, and the Babcock and Wilcox Company, was recently formed to build and operate a large nuclear power plant in Florida. *Id.* at 11.

38. For some examples of what the states are doing along these lines, see ATOMIC INDUSTRIAL FORUM, THE IMPACT OF THE PEACEFUL USES OF ATOMIC ENERGY ON STATE AND LOCAL GOVERNMENT, A FORUM REPORT 46-57 (1959).

39. A recent attempt to use the compact in this fashion was the New England Development Authority Compact, presented to the legislatures of the New England States in 1949 by the New England Governors' Conference, but ratified only by Rhode Island. See ZIMMERMAN & WENDELL, *op. cit. supra* note 7, at 22. On occasion the courts have upset state action on the ground that no state can block itself off from its neighbors by erecting economic barriers. Baldwin v. Seelig, Inc., 294 U.S. 511 (1935). This principle could apply to a regional group of states with equal force.

40. See note 37 *supra*.

one state is apt to be met with almost irrational rancor in the other.

If the states had seen fit to vest in the compact agency authority to bind them to its decisions and recommendations, the mode of competition would be altered. Then true regional development could go forward. But even though the fruits to the individual states might have been greater, the states were not willing to rest such power in the agency.

From the standpoint of strict logic, that governmental body should take jurisdiction whose area most nearly corresponds to the confines of a given problem. What is good for the South as a whole may very well accrue also to the benefit of Tennessee or Alabama, but how do you convince those two states of it, when it is Mississippi that has obtained the new industry? Whether we like it or not and however irrational it may be, this pragmatic, "devil-take-the-hindmost" attitude as to the attracting of industry exists in the South, and in other areas as well.

It appears then that there may not be homogeneity of interest in the development of atomic industry which would justify an effort at concerted regional action by use of a compact.[41] To be sure, the development of the uses of atomic energy is fraught with novelty and many unknowns, but it is difficult to see how, in the long run, the problems will be very much different from any other industry. There are existing state agencies already charged with industrial development programs and they, with some additional training in the special needs of atomic industry, can carry out the states' atomic industrial programs.

Could a regional agency perform an important function by serving as a gathering point for information and as a regional liaison between the AEC, industry, and the states themselves? The NIC apparently contemplates that the compact agency would acquaint industry with the attractions of the region and favorable characteristics of certain sites therein, after which the state and local authorities and agencies would take over the task of enticing the industry to locate within their state. It takes little acumen to realize that this could lead to interstate and even intrastate jealousies and dissatisfaction. It is not clear why sources of development information, the AEC and industry, are not as readily available to state agencies as they would be to the compact agency.[42]

41. In general the objections to the New England Development Authority Compact were about as outlined in the text. It was felt that without more than advisory powers the development agency would be faced with opposition and intrastate as well as interstate jealousy. SOUTHWESTERN LEGAL FOUNDATION, *op. cit. supra* note 4, at 20.

42. See generally Northrop, *The Changing Role of the Atomic Energy Commission in Atomic Power Development,* 21 LAW & CONTEMP. PROB. 14 (1956).

Additional criticism has already been directed against the interstate compact as "short circuits" in the nation's federal pattern.[43] The concern is that a third type of governmental unit, *i.e.,* the agency usually created by the agreement, responsive neither to state nor Federal government, is brought into being. This, argue the critics, was not contemplated by the Constitution.

Objectors to the compact technique rarely fail to assert that the compact is "doomed before it starts."[44] It is certainly true that there are strong inhibitory influences in the very process of formulating interstate compacts.[45] The prescribed procedure is cumbersome and this leads to one of the most serious criticisms—the inordinate amount of time required to bring the compact into effective existence.[46] Not only is there fear among industrially competitive states that any agreement to which they might come would be used to their disadvantage by other parties to the compact, but there are also within each state nonpolitical pressure organizations that may find a proposed compact distasteful.[47]

Another charge commonly brought against compacts is the one of inflexibility.[48] Flexibility and ease of amendment, so vital to social legislation in particular, could not very well exist as part of a compact between sovereign states, which, above all else, must be treated exactly alike in every respect.[49] Rigidity is, however, desirable in fields such as crime-law enforcement, commercial law, and tax reform, but without a certain allowance for discretion and alteration of detail, the venture is apt to lack independence, initiative, and coercive authority.[50] To meet this charge of inflexibilty the oil and

43. THURSBY, *op. cit. supra* note 6, at 5. See also Routt, *Interstate Compacts and Administrative Co-operation,* 207 ANNALS 93 (1940).

44. LASKI, THE AMERICAN DEMOCRACY 156 (1948).

45. It has been stated that there are two methods of negotiating interstate compacts—the one by means of reciprocal legislation and the other by means of the "contract system." Dodd, *Interstate Compacts,* 70 U.S.L. REV. 557, 558 (1936); See also NATIONAL RESOURCES COMMITTEE, *op. cit. supra* note 35, at 34.

46. It has even been suggested that "in view of the importance of interstate compacts . . . the Conference should consider whether it would wish to propose a uniform procedure for framing compacts . . . ." HANDBOOK OF THE NATIONAL CONFERENCE OF COMMISSIONERS ON UNIFORM STATE LAWS 360 (1931).

47. See DIMOCK & BENSON, *op. cit. supra* note 35, at 14.

48. *Id.* at 16.

49. One commentator has stated, however, that, "as an interstate agreement creates rights which may be altered only by consent of the parties, it is true that such an agreement is built more firmly into the legislative structure than unilateral or even reciprocal action on the part of the states concerned. Because of that fact, it is important at the time of negotiation for a state to be sure that it is not entering an agreement which might drag down its existing standards to the level of states with lower requirements." Clark, *Interstate Compacts and Social Legislation,* 51 POL. SCI. Q. 36 (1936).

50. "Failure to provide some means of development, revision, and continuing adjustment may well mean that the compact contains the seeds of its own destruction." THURSBY, *op. cit. supra* note 6, at 14.

labor compacts included provision for periodical revision.[51]

Finally critics of the device have questioned it from an enforcement angle. What is the remedy, they ask, if a state wilfully fails to act in accord with the agreement? In practice this question has been a moot one,[52] but if Congress has given its consent to a compact, it is likewise given power to enforce it. In reality the success or failure of a compact depends only to a very minor degree upon whether it can be legally enforced.[53]

COMPACTS AS REGULATORY DEVICES

The proposed compact in its concern with uniformity of regulation relating to uses of nuclear processes creates an agency or commission which "shall from time to time present to the Governor of each compacting state its recommendations relating to enactment to be presented to the Legislature of that state" and "consult with and advise the pertinent administrative agencies . . . with regard to problems connected with the purposes of this Compact and recommended the adoption of such regulations as it deems advisable."[54] Each state may participate in both the regulatory and developmental purposes, or in only one.[55] The commission is strictly advisory and commands no power to compel compliance with its suggestions.

Thus the compact envisages uniformity among the compacting states in the regulatory process. Two questions immediately come to mind: is uniformity required or even desirable and if so, is a compact the best method of attaining uniformity? A closer inspection of some of the areas where regulation problems are apt to arise should resolve these questions.

Health and Safety Regulations

The utilization of nuclear by-products and processes involves hazards of a most serious nature. Certainly Congress took notice of this problem in the Atomic Energy Act of 1954, but whether there is federal pre-emption of this function is a legal question that cannot yet be answered with assurance. It is at least arguable that the congressional scheme of controlling the peaceful atom is so pervasive as

51. Interstate Oil Compact of 1935, Article VIII; Minimum Wage Compact, Title I (see note 22, supra).

52. There has not been a case in which a state of the Union has steadfastly refused to obey the decision of the Supreme Court in an interstate suit. The Supreme Court has said that when Congress has given its consent to a compact, it is likewise given power to enforce it. Virginia v. West Virginia, 246 U.S. 565 (1918).

53. "To say that one sovereign state may compel specific performance against another . . . is to say precisely nothing as far as the realities of social legislation are concerned." Clark, *supra* note 49, at 60. See also Note, *A Reconsideration of the Nature of Interstate Compacts*, 35 COLUM. L. REV. 76 (1935).

54. Nuclear Interstate Compact art. IV.

55. *Id.* art. I.

to evidence an intent to exclude all state authority.[56] State legislation in the field of regulation of health and safety hazards has therefore largely been in the form of a broad framework, designed for a period of uncertainty and change.[57] Proposed changes to the Atomic Energy Act of 1954 would open the door for state entry into the field by authorizing (a) cooperation of the AEC with the state in carrying out the Commission's responsibility for protecting the public from radiation hazards and (b) the states to adopt, inspect against, and enforce standards for protecting the health and safety of the public from radiation hazards incident to the processing and utilization of source, by-product, and special nuclear material.[58] Although it is unlikely that the federal government will give up the right to pass upon the health and safety aspects of large reactors[59] and diffusion plants, responsibility for the regulation of hazards of lesser proportion will almost certainly eventually devolve upon the states.[60]

As a matter of fact, the ultimate responsibility for the protection of public health, is and has been with the states themselves. The responsibilities within the state may be delegated to several different agencies[61] in different areas, such as public health, labor or agriculture.

56. See in this connection Cavers, *supra* note 2, at 28; Estep, *Federal Control of Health and Safety Standards in Peacetime Private Atomic Energy Activities*, 52 MICH. L. REV. 333 (1954); Krebs & Hamilton, *The Role of the States in Atomic Development*, 21 LAW & CONTEMP. PROB. 182 (1956).

57. In 1954 the Committee on Atomic Energy of the New England Governors' Conference drafted a Model Act designed for adoption in the New England states. It declared the enacting state's intent to cooperate actively in the federal program and to provide for the exercise of the state's regulatory authority—to the extent of its jurisdiction—so as to conform as nearly as possible to the Atomic Energy Act of 1954, with the objective of creating a single harmonious system of regulation within the state. The basic purpose of the act was to equip the state with a small staff, strategically located in an advisory capacity to the governor, and empowered to initiate and to coordinate studies and recommendations for the development, utilization and regulation of atomic energy. Existing departments and agencies were to be utilized primarily in carrying out state responsibilities. The act was adopted in Connecticut, CONN. GEN. STAT. § 1933d (Supp. 1955); Maine, ME. REV. STAT. ANN. c. 52-A; Massachusetts, MASS. ANN. LAWS, c. 6, §§ 85-93 (Supp. 1957); New Hampshire, N. H. REV. STAT. ANN., c. 162-B (Supp. 1957); Rhode Island, R. I. GEN. LAWS § 42-27-1; and South Carolina, S.C. CODE § 1-391-95 (Supp. 1957). Since the Council of State Governments included it in its suggested state legislation for 1957, the act has been adopted in Arkansas, ARK. STAT. ANN., §§ 82-1401-06 (Supp. 1957); Kentucky, Acts, 1958, c. 146 (Baldwin); Ohio, OHIO REV. CODE ANN. § 4163.01-06; Tennessee, TENN. CODE ANN. §§ 53-3101 to -04 (1956); and Washington, Wash. Sess. Laws of 1957, c. 92. For the latest draft of this act, see COUNCIL OF STATE GOVERNMENTS, SUGGESTED STATE LEGISLATION 17 (1958).

58. The House bill, introduced by Rep. Durham, was H. R. 8676, 84th Cong., 2d Sess. (1956) and the Senate bill, introduced by Sen. Anderson, was S. 4298, 84th Cong., 2d Sess. (1956). For analysis of these bills, see Cavers, *supra* note 2, at 30.

59. For a good discussion of the regulation of reactor safety, See Green, *The Law of Reactor Safety*, 12 VAND. L. REV. 115 (1958).

60. A useful study of the problems connected with these lesser hazards is BERMAN & HYDEMAN, FEDERAL AND STATE RESPONSIBILITIES FOR RADIATION PROTECTION: THE NEED FOR FEDERAL LEGISLATION (1959).

61. It has been estimated that in Massachusetts twenty-two state agencies

Involved are numerous problems such as prevention of disease, education, vital statistics, disposition of corpses, industrial hygiene, industrial accidents, protection of water supply and sanitary facilities, stream pollution, and control over foods, drugs, and cosmetics. In most states the statutory basis of public health programs will be adequate, with some changes to deal with uses of radioactive material. Perhaps some states will find it feasible to create a radiological health service,[62] but it is apparent that public health is considered by the states themselves to be a state problem, and the solutions are being sought by the states.

Another area which may create some new problems is workmen's compensation.[63] Acts have been passed in all of the American states which require an employer to provide a method, either by showing of financial ability to pay, or by the purchase of insurance, to provide compensation for injury to his employees. In every workmen's compensation statute there is a "short statute of limitations"[64] which provides that any action must be brought within six months, one year or two years from the time of its occurrence. A great many contain "latent injury provisions" which provide that when an injury cannot be readily detected, the short statute doesn't start running until the injury is detected. Without such a provision workmen suffering from radiation sickness or disease will not be adequately covered. Also it may be difficult on many cases to show that the disease, such as leukemia and bone cancer, was connected with the employment and the direct result of engaging in it.[65]

Certain steps should be taken by state legislatures. Workmen's

will probably have to widen their fields of activities to include problems arising from atomic energy regulation and development. Krebs & Hamilton, *supra* note 56, at 184.

62. The following guides have been developed: (1) Declare a public policy concerning ionizing radiations (2) Designate an administrative agency to deal with the problem (3) Authorize necessary rule making relative thereto (4) Provide for enforcement thereof. ATOMIC INDUSTRIAL FORUM, *op. cit. supra* note 38, at 22. The American Public Health Association is now working on a document entitled: RADIOLOGICAL HEALTH PRACTICE—A GUIDE FOR PUBLIC HEALTH ADMINISTRATORS. The Vanderbilt University School of Law has just completed a study for the state of Tennessee of the statutory powers of its Department of Public Health to discharge its duties under conditions involving extended commercial and industrial usès of radioactive materials in the state. These statutory powers include those presently enacted as well as those proposed by a draft Radiological Health Service Act. REPORT, ATOMIC ENERGY MATTER, AN ASSESSMENT OF THE STATUTORY BASIS OF THE TENNESSEE DEPARTMENT OF PUBLIC HEALTH (Dec. 28, 1958) (The draft act can be seen as App. I to this report).

63. See Hutton, *Workmen's Compensation and Radiation Injury*, 12 VAND. L. REV. 145 (1958). The recent amendment of the Judicial Code of the United States, which prohibits removal from state to federal courts of workmen's compensation, points up that this is completely a problem for the individual states. See 28 U.S.C. § 1445 (c) (Supp. 1958).

64. *E.g.*, TENN. CODE ANN. § 50-1003 (1956).

65. Hutton, *supra* note 63, at 151.

compensation laws should provide an occupational disease section, which specifically covers radiation disease.[66] The short statute of limitations should provide for action to be filed within a period from the time of discovery and not from the time of cause. By reason of the long period of illness connected with radiation injuries, the medical benefits should be prolonged. Radiation injuries should be subject to second injury provisions and be specifically included within the latent injury provisions. The individual states can and must work this out—workmen's compensation laws among the states are diverse now, and radiation injuries are not so different from other industrial injuries to warrant any attempt at uniformity among the states.

It is readily apparent that state regulation in this area will of necessity have to be a cooperative venture, with the federal government as at least a silent partner. A recent study has shown that the transfer of responsibility for health and safety regulation is fraught with many problems indeed.[67] Assuming, however, that the transfer is made, what value would there be to having an advisory agency created by a compact between the states in a regional area?

In the first place it seems absolutely necessary that there be nationally recommended minimum standards below which the state could not go. This is so because, although the public concern over the potential hazard might be some deterrent, an individual state might succumb to commercial pressures for too-lax requirements. These recommended standards may come either from the AEC or some nationally respected private agency.

There is in existence now such an agency, the National Committee on Radiation Protection, composed of representatives from the physical sciences, industry, labor, and government.[68] The maximum permissible levels, performance standards, licensing requirements, and inspection and enforcement systems recommended by the NCRP have been adopted, with only minor changes, by the AEC for its contract and regulatory programs and by the states which have adopted radiation protection standards.[69] Presumably as new problems arise, the

66. All state workmen's compensation laws have basic provisions in this area except Mississippi and Wyoming, which do not provide occupational disease coverage. Statutes of eight states do not cover any injuries due to radiation—Alabama, Iowa, Maine, Mississippi, Montana, New Hampshire, Tennessee, and Wyoming.

67. BERMAN & HYDEMAN, *op. cit. supra* note 60, at 147-162.

68. The committee is composed of experts in the field of radiation protection from the American College of Radiology, American Medical Association, American Radium Society, American Roentgen Ray Society, National Bureau of Standards, National Electrical Manufacturers Association, Radiological Society of North America, the United States Army, Navy, Air Force, Atomic Energy Commission, and Public Health Service.

69. Eight states have adopted comprehensive radiation protection regulations. They are California, Connecticut, Massachusetts, Michigan, Minnesota, New York, Pennsylvania, and Texas. In varying degree, these regulations are

NCRP will provide the answers.[70]

Assuming that there will be no federal legislation forthcoming which will clearly delimit and define the areas of federal and state regulatory authority, and further assuming that the states do not adhere to any nationally recommended standards, a compact agency could serve a useful purpose. By serving as a gathering point of information, it could give advice to the compacting states which would prevent duplicating and overlapping state and federal regulation, conflicting multiple state regulation, and too-restrictive or too-lax regulation in a given state. It seems very unlikely that the federal government will allow such a contingency or that the states will be so naive as to embark on such a program.

In short the interstate compact appears to be of little use to the Southern states in the area of regulation of health and safety. The compact agency would only serve as a channel through which information and advice could be made available to the compacting states. This information is as readily available and as easily obtained by other means.[71]

Regulation of Insurance

The unparalleled hazards created by the industrial use of atomic energy burst upon an insurance industry which is without benefit of accumulated experience or the opportunity to employ the trial and error method which underlies so many segments of the insurance business.[72] The main concern of the states is with major nuclear accidents which could cause widespread damage to both person and property. Only AEC contracted or licensed facilities could produce such an accident.[73] The AEC requires liability insurance of its licensees and the insurance companies, both mutual[74] and stock,[75] have risen to

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fashioned after the NCRP's model state radiation protection regulations. See BERMAN & HYDEMAN, *op. cit. supra* note 60, at 60.

70. While the NCRP's primary function is to recommend permissible exposure levels, it has issued a suggested radiation protection regulation as a guide to those states desiring to adopt radiation regulation. NBS, HANDBOOK 61, REGULATION OF RADIATION EXPOSURE BY LEGISLATIVE MEANS, app. B (1955).

71. See ATOMIC INDUSTRIAL FORUM, *op. cit. supra* note 38, at 66 for a discussion of AEC—state cooperation in regulating the peaceful uses of atomic energy. For a discussion of this problem, see also Hamilton & Krebs, *Radiation Protection Regulation: An Opportunity for Cooperative Federalism*, 12 VAND. L. REV. 395 (1959).

72. See in this regard, Thomas, *Can We Insure Against Liability from Nuclear Incidents?*, 46 CALIF. L. REV. 14 (1958).

73. It has been estimated that property damage in the event of a runaway reactor and consequent release of 100% of the fission products could conceivably run as high as $900,000,000.

74. The mutual companies have formed a pool known as the Mutual Atomic Energy Reinsurance Pool, generally referred to as MAERP.

75. The pool of the stock companies is known as Nuclear Energy Liability Insurance Association—NELIA.

the occasion in fine fashion. Since these policies are subject to AEC approval, standardization is necessary and exists.[76]

In addition the Anderson-Price Act provides indemnity to a licensee in an amount not in excess of 500 million dollars over and above the liability insurance obtained by the licensee as a condition for a license.[77] Also the mutual and stock companies have formed organizations to write property insurance for AEC licensees—standard and identical policies are contemplated.[78]

Thus we see that in the area where financial protection is compulsory, the field of insurance regulation is adequately taken care of and no reason for regional action can be seen. As to insurance in other areas, there seems to be no more reason for desiring uniformity of insurance regulation than in any other industry. Non-uniformity has never caused any particular difficulty.

Conclusion

Interstate compacts are not adaptable to any problem which can best be handled by the states themselves; nor are they satisfactory where there is not homogeneity of interest among the compacting states. As we have seen the states of the South have available the tools to regulate and develop atomic energy effectively. Defaulting or forfeiting the obligation of doing so to a regional agency is only slightly less desirable than leaving it with the national government. A regional agency with only advisory and information-gathering power at its best is apt to be innocuous and sterile, although occasionally helpful. At its worst it could be a source of bickering and jealousy between states whose cooperation to promote common interests in other areas could be jeopardized. Uniformity in the regulatory area is desirable, but there are more adequate methods of obtaining it than an interstate compact; in the area of development, uniformity is not needed and cooperation among states in a region is beset by competitive interests that are by no means undesirable.[79]

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76. These pools are expected to develop the capacity of approximately $60,000,000 per risk. The members of these pools have developed uniform standards for underwriting the risks offered and for engineering and inspection services. Procedures are being set up to handle claims in accordance with uniform standards. Thomas, *supra* note 72, at 15.

77. 71 Stat. 576, 42 U.S.C. §§ 2012, 2014, 2039, 2073, 2210, 2232, (Supp. V, 1957).

78. Thomas, *supra* note 72, at 20.

79. Although the draftsmen of the NIC presumably decided against it, such a compact might well be used to solve the problem of overlapping jurisdiction in the workmen's compensation field. See Dwan, *Workmen's Compensation and the Conflict of Laws*, 11 Minn. L. Rev. 329, 352 (1927); Storke & Sears, *Reciprocal Exemption Provisions of Workmen's Compensation Acts*, 67 Yale L.J. 982, 989 (1958).