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ABSTRACT

The long lasting legacy of nuclear technology in energy, industry, and medicine is low and high level radioactive waste. While a workable solution to the problem of high-level waste disposal is many years yet to come, Congress has finally, albeit reluctantly, established a national structure for the systematic disposal of low-level waste. Rather than impose its desired scheme on the states, Congress opted for an incentive system designed to encourage—but not require—the formation of six to eight evenly distributed regional disposal compacts. The result has been a less than satisfactory mixed bag of large and small compacts and the so-called "go-it-alone" option.

This article explores the constitutional problems facing a noncompacting state which might choose to go-it-alone and then attempt to ban or exclude the importation of out-of-state waste. The commerce clause forms a solid roadblock to such a noncompacting state. Despite exceptions such as the quarantine and market participant doctrines, a noncompacting state cannot ban the importation of out-of-state waste under the current constitutional jurisprudence. Whether the structure of the existing compact system is going to require a congressional overhaul depends upon the states. The effectiveness of the compacting system may well be determined by the efficacy of the noncompacting state option.

INTRODUCTION

In the beginning, little attention was paid to the problems associated with nuclear technology. In the United States, nuclear fission technology enjoyed a honeymoon with the press and the politicians until the catas-

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trophe at Three Mile Island Nuclear Plant in the late 1970s.[1] Today, public attention is very much focused on the negative consequences of nuclear technology. In recent years, there has been increasing public debate over whether nuclear technology is even worth the price.

Radioactive substances are omnipresent in this country whether they are used in electric power generation, medicine, research, or manufacturing. Irrespective of the role nuclear technology will play in our future society, a legacy of radioactive waste products has already been created which will require care and management for centuries to come. Summarizing the dilemma, Senator James McClure has pointed out that "[t]hese wastes represent one of the challenges of the nuclear age: To utilize radioactive materials for the general good, but to safely manage for eons the resulting radioactive waste."[2] Low-level radioactive waste is one of the most pressing problems confronting us today. In 1983 alone, nearly three million cubic feet of low-level waste was generated in the United States.[3]

Low-level radioactive waste, as defined by the 1985 Amendments to the Low-Level Waste Policy Act (LLWPA),[4] is all "radioactive material that . . . is not classified as high-level waste, spent nuclear fuel, or byproduct material . . . and [which] the Nuclear Regulatory Commission classifies as low-level radioactive waste."[5] It is currently disposed of by

1. On the evening of March 30, 1979, Walter Cronkite greeted millions of viewers with this: "Good evening. The world has never known a day like today. It faced the considerable uncertainties and dangers of the worst nuclear power plant accident of the atomic age. And the horror tonight is that it could get much worse . . . the specter was raised that perhaps the most serious kind of nuclear catastrophe [next to an atomic explosion], a massive release of radioactivity [could occur]." M. Stephens, Three Mile Island: The Hour-By-Hour Account of What Really Happened 4 (1980).

2. 131 Cong. Rec. S18118 (daily ed. Dec. 19, 1985) (statement of Sen. McClure).

3. To be exact, 2,992,826 cubic feet. Nuclear power plants created 1,898,410 cubic feet; private industry created 869,042 cubic feet; hospitals and university research facilities accounted for 173,604 cubic feet; and government sources generated 51,770 cubic feet. Prochaska, *Low-Level Radioactive Waste Disposal Compacts*, 5 Va. J. Nat. Res. Law 383, 383 n.1 (1986), (citing Dept. of Energy, *The 1983 State by State Assessment of Low-Level Radioactive Wastes Shipped to Commercial Disposal Sites*, Conference of Radiation Control Program Directors, Inc., Doc. No. DOE/LLW 39T at 1 (1984)) [hereinafter *State by State Assessment*].

4. Low-Level Radioactive Waste Amendments Act of 1985, 42 U.S.C. §§ 2021b—2021j (Supp. V 1987).

5. *Id.* § 2021(b)(9). Beyond that, low-level waste is put into one of three categories. Class A waste is the least radioactive in terms of concentration and length of time necessary to become inert; for example, contaminated rubber gloves, absorbent paper, and glassware. Class B waste must go through a stabilization process before storage. Class C waste, the most toxic, must be buried with at least 15 feet of cover to protect against accidental exposure. *See* Prochaska, *supra* note 3, at 384 n.9 (citing *Ratification of Interstate Compacts for Low-Level Nuclear Waste Management: Hearings before the Subcomm. on Energy and the Environment of the House Comm. on Interior and Insular Affairs*, 98th Cong., 1st Sess. 60-61 (1983) (statement of John G. Davis, Nuclear Regulatory Commission) [hereinafter *Ratification of Interstate Compacts*]). Senator Alan Dixon put it into even easier to understand layman's terms. Low-level waste "is generally confined to contaminated materials from commercial reactors, hospitals, research institutions, and industrial sites. Low-level waste decays faster than high-level waste and is measured by volume rather than radioactivity. Low-level waste is not spent reactor fuel or radioactive liquids produced by reprocessing, rock and sand from which uranium has been extracted, or transuranic waste." 131 Cong. Rec. S18121 (daily ed. Dec. 19, 1985) (statement of Sen. Dixon).

near surface disposal at one of the three operating facilities in the United States.[6] Originally, the Atomic Energy Commission licensed six regional disposal sites.[7] This system met the needs of low-level waste producers nationally and more or less evenly distributed the responsibility for disposal on a regional basis. However, serious technical problems emerged; primarily, the unanticipated collection of surface water in trenches at several sites—a phenomenon known as "the bathtub effect." By 1978 only the Nevada, South Carolina, and Washington sites remained open. Although still an efficient means of disposal, the inequity of this situation placed those host states on a collision course with the entire country.[8]

Two specific incidents were catalysts toward a national solution to the low-level waste problem. First, Nevada Governor Robert List closed the Beatty site in July 1979 after a truck carrying radioactive medical waste caught fire at the Nevada site entrance, exposing ten people to radiation, and another "truck carrying supposedly dehydrated waste from a Michigan power plant arrived at the site leaking contaminated liquids."[9] Then Governor Dixie Lee Ray of Washington closed that state's site and Governor Richard Riley of South Carolina announced that the Barnwell, S.C. site would reduce by one-half the volume of waste it would accept within two years (by October 31, 1981).[10]

The various incidents of 1979 provided the impetus for the enactment of the Low-Level Waste Policy Act (LLWPA) of 1980.[11] The LLWPA was essentially designed to encourage states to form compacts for the purpose of waste disposal. The statute's only leverage was the January 1, 1986 deadline, after which the operators of the Beatty, Richland, and

6. A "near surface disposal facility" is defined by the Nuclear Regulatory Commission as "a land disposal facility in which radioactive waste is disposed of in or within the upper 30 meters of the earths surface." 10 C.F.R. §61.2 (1985).

7. The six original sites were, in the order they opened: Beatty, Nevada (1962); Maxey Flats, Kentucky (1963); West Valley, New York (1963); Richland, Washington (1965); Sheffield, Illinois (1967); and Barnwell, South Carolina (1971). White & Spath, *How Are States Setting Their Sites?*, 26 Env't 17, 20 (1984).

8. The West Valley, New York site was closed in 1975; the Maxey Flats, Kentucky site in late 1977; and the Sheffield, Illinois site in early 1978. *See Id.* at 36. The result was that in 1978, over 75% of the nation's waste was sent to the Barnwell, South Carolina site, 11% to Beatty, Nevada, and 10% to Richland, Washington. "Yet, during 1978, the three states in which these sites were located generated only seven and seven-tenths percent of the wastes generated nationally." Hart & Glaser, *A Failure to Enact: A Review of Radioactive Waste Issues and Legislation Considered by the Ninety-Sixth Congress*, 32 S.C.L. Rev. 639, 774 (1981). According to the U.S. Department of Energy, by 1982 the Barnwell site was home to 14,694,226 cubic feet of low-level waste, or roughly 44% of all low-level waste generated nationally between 1962 and 1982, *Id.*

9. Hart & Glaser, *supra* note 8, at 775.

10. *See Id.* at 775-77. Ray and Riley wrote the chairman of the Nuclear Regulatory Commission (NRC) to protest the lack of enforcement of existing packaging and transportation requirements for low-level waste. The NRC was to develop comprehensive regulations for the disposal of low-level wastes and thus remove an impediment to the establishment of additional regional disposal sites. Eventually, the NRC did issue comprehensive regulations for siting, packaging waste for transportation, and operation of disposal facilities. They came out in 1983, more than twenty years *after* the first low level waste facility opened. *See also* White & Spath, *supra* note 7, at 36.

11. 42 U.S.C. §§2021b—2021d (1982), *amended by* Low Level Radioactive Amendments Act of 1985, 42 U.S.C. §§2021b-2021j (Supp. V 1987).

Barnwell sites would be permitted to refuse out-of-compact generated waste (assuming that those sites would be part of a regional compact by then). Alternatively, they were permitted to levy surcharges for waste they continued to accept beyond the cut-off date.[12] Other than avoiding increased costs, there was no substantial motivation for the other 47 states to expedite the formation of these compacts. As a result, things did not work as smoothly as planned. In 1983, Richland, Washington was home to 53 percent of the nation's waste generated to that date. Barnwell, South Carolina contained 46 percent, and Beatty, Nevada had disposed of the remaining one percent.[13] In fact, no new sites have opened since 1971. As recently as five years ago, the Nuclear Regulatory Commission estimated that it would take an average of four years to site, license, and construct a new disposal facility. Recent experiences by some states have shown this projection is too optimistic.[14]

The basic problem is that no state wants to become host to a waste facility. Under the LLWPA, only two options were available to each state: 1) join a congressionally approved regional low-level waste disposal compact;[15] or 2) forego joining a compact and attempt to handle disposal without assistance—or waste—from any other state. Since the three host states could legitimately close their facilities because of continuing lack of compliance with packaging and transportation regulations, there was no real third option for the long term.

The choice between a national, regional, or state-by-state waste disposal system has come and gone for the time being. Which choice might have been the "best" solution is not presently an issue. What exists today is a forced marriage of regional and statewide systems. The imminent question is whether such a system can work. The remainder of this article examines the inability of a noncompacting state to ban the importation of out-of-state waste in light of the existing legal and practical problems with such a plan.

THE LOW-LEVEL WASTE POLICY ACT

Until December of 1980, the Federal Government had exclusive control over the disposal of low-level waste.[16] (Hereinafter "waste" shall refer to low-level radioactive waste except where stated otherwise.) At that

12. *See* 42 U.S.C. § 2021e(d) (Supp. V 1987).

13. Prochaska, *supra* note 3, at 385 n. 11 (citing *State by State Assessment*, *supra* note 3, at 2).

14. *Id.* at 385. Texas started looking for a disposal site in 1981. In February 1984, it anticipated opening a site by 1988. Due to a host of site selection problems, Texas is not expected to open that facility until mid-1991, at the earliest. *Id.* at 385 n.13 (citing *Ratification of Interstate Compacts*, *supra* note 5, at 92-93 (statement of Robert Avant, Jr., Texas Low-Level Waste Disposal Authority).

15. U.S. Const. art. I, § 10, cl.3 states, "[n]o State shall, without the consent of Congress, . . . enter into any agreement or compact with another State, ..."

16. 131 Cong. Rec. S18118 (daily ed. Dec. 19, 1985) (statement of Sen. McClure). *See also* Prochaska, *supra* note 3, at 385.

time, Congress enacted the LLWPA to promote safe and efficient disposal of this waste.[17]

> The publicity generated by [the] site closings, along with the popular suspicion of radioactivity, so impeded the development of low-level waste disposal facilities that by late 1979 a near-crisis situation had evolved. Indeed, at that time, there was only one commercial low-level waste disposal facility open in the United States, and the paucity of disposal sites threatened to halt medical research generating low-level waste.[18]

The LLWPA represented Congress' attempt to resolve this nationwide lack of sufficient and equitably distributed disposal facilities. The act established two federal policies. First, the states were to be responsible for disposing of their own waste. Second, disposal was to be on a regional basis.[19] Thus, the states were to form regional compacts, and once approved by Congress, they would be able to prohibit the importation of waste generated outside the compact states' borders.[20] All of this was to occur by January 1, 1986, when the exclusionary authority was to begin. However, "[g]iven the time necessary to negotiate compacts and to construct waste disposal sites, this date was overly optimistic."[21]

Two problems immediately laid waste to congressional expectations. One was that the states were very slow in forming any compacts. The other was that they were not forming into the six or eight large compacts that the federal legislators foresaw. Instead, the three states with existing waste sites rapidly formed compacts with neighboring states while the remaining states grudgingly began to shop around for their own compacts. By 1985, nine disposal compacts had been formed and at least four more compacts were in various stages of negotiation, with the January 1, 1986

17. *See* 42 U.S.C. §§ 2021b—2021d (1982), *amended by* Low Level Radioactive Amendments Act of 1985, 42 U.S.C. §§ 2021b-2021j (Supp. V 1987). *See generally* Note, *Glowing Their Own Way: State Embargoes and Exclusive Waste-Disposal Sites Under the Low-Level Radioactive Waste Policy Act of 1980*, 53 Geo. Wash. L. Rev. 654(1985) [hereinafter Note, *Glowing Their Own Way*].

18. Note, *Glowing Their Own Way*, *supra* note 17, at 655.

19. 42 U.S.C. § 2021d(a)(1) (1982), *amended by* Low Level Radioactive Amendments Act of 1985, 42 U.S.C. §§ 2021b-2021j (Supp. V 1987). For an overview of the original regional disposal plan set up by the Federal Government and the problems that caused it to fail, *see generally*, Hart & Glaser, *supra* note 8, at 772-86; White & Spath, *supra* note 7, at 17-42.

20. States have formed various compacts to combat problems in areas as diverse as water allocation, crime control, and solid-waste disposal. "The Supreme Court has interpreted the compact clause, U.S. Const. art. I, § 10, cl.3, to require congressional approval of compacts 'tending to the increase of political power in the States, which may encroach upon or interfere with the just supremacy of the United States.'" New Hampshire v. Maine, 426 U.S. 363, 369 (1976) (quoting Virginia v. Tennessee, 148 U.S. 503, 519 (1893)). Note, *Glowing Their Own Way*, *supra* note 17, at 655-56 n. 13.

21. Prochaska, *supra* note 3, at 386. For 65 compacts covering a variety of subjects, the average length of time from ratification by the first state until congressional approval was four years and nine months. With more controversial compacts on river management and water allocation, the average time was eight years and nine months. *Id.* (citing F. Zimmerman, *The Law and Use of Interstate Compacts* 54 (1961)).

deadline rapidly approaching.[22] As the original compacting period expired, no new disposal sites had opened, and none were under construction.[23]

Experience has shown that the formation of a regional compact cannot be equated with the more difficult task of finding a host state and actually opening a disposal facility. On the surface, a "regional" compact system has evolved.[24] Although geographic links exist between the various compacting states, the reason for these links is quite different from that envisioned by Congress. Rather than true regional waste disposal compacts, what has evolved is in part a system of umbrella compacts. That is, one state in many of the compacts is the primary waste producer among those states. That state is now or will soon become the host state for the compact's disposal facility. The only thing which would change this arrangement is if a member state increased its output of waste enough to reach a preset trigger—usually a percentage of the waste produced by fellow compacting states.[25] For example, Colorado will be the host state for the Rocky Mountain Compact after Beatty, Nevada is closed. Colorado currently generates over 90 percent of the compact's waste. The trigger there is 20 percent of the region's waste.[26] In the Central Midwest Compact, the state generating over ten percent of the region's waste is to be the host state.[27] The Appalachian Compact is solely between Pennsylvania and West Virginia. It requires West Virginia, if it generates more than 25 percent of the volume of waste generated by Pennsylvania, to become a host to its own waste but not that of the region. In effect, West Virginia, in the worst case scenario, would have to dispose of only its own waste if its output ever reached the threshold figure.[28]

Essentially, several states have used the compacting process to create a system whereby the larger waste-producing states are handling there

22. *Id.* at 386-87.

23. *Id.* at 387.

24. The compacts formed as of 1986 were:
Appalachian: Pennsylvania and West Virginia
Central: Arkansas, Kansas, Louisiana, Nebraska, and Oklahoma
Central Midwest: Illinois and Kentucky
Northeast: New Jersey, Maryland, Connecticut, and Delaware
Northwest: Alaska, Hawaii, Idaho, Montana, Oregon, Utah, and Washington
Midwest: Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin
Rocky Mountain: Colorado, Nevada, New Mexico, and Wyoming
Southeast: Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia
Western: Arizona and California
Id. at 387-88 n.29 (citing Nichols, *States Inch Toward 1986*, Nuclear Indus. 8 (June 1985)).

25. *Id.* at 391-94.

26. *Id.* at 392-93 n.63.

27. *Id.* at 393. In fact, in 1983 Kentucky generated 2613 cubic feet of low-level waste, whereas Illinois generated 218,805. *Id.* at 393 n.72 (citing *State by State Assessment, supra* note 3, at A-3).

28. That is extremely unlikely since Pennsylvania generated 270,435 cubic feet of waste in 1983; West Virginia generated only 706. *See id.* at 394 n.73.

own waste plus a minor additional amount from neighboring small output states. The arrangement benefits both small and large waste-producing states, and this practice certainly comports with half of the LLWPA policy that the states take responsibility for their own waste. Forming these compacts from a defensive posture by volume of waste produced is contrary, however, to Congress' desire for a regional disposal system along the lines of the original six sites. Senator Bradley pointed out that "[t]he failure to achieve the intended result of the 1980 act can be largely be attributed to the act's lack of clearly defined incentives and penalties that would induce the establishment of new disposal capacity within the non-sited compact regions."[29] The 47 non-sited states basically wanted to put off this process as long as possible. To achieve this, they "sought to block the compacts developed by the three States with sites until [those] three [States] agreed to accept out-of-region waste past 1986."[30] It was not until South Carolina, Nevada, and Washington threatened to actually close their facilities to all waste—generated in or out of their respective compacts—that Congress got the message. Something had to give, so Congress amended the LLWPA.

THE 1985 AMENDMENTS TO THE LLWPA

Twelve days before the January 1, 1986 deadline, Congress adopted the Low-Level Waste Policy Amendments (hereinafter "LLWPA" refers to the 1985 amendments).[31] These amendments did several things. First, they moved the earliest available date for exercising exclusionary authority to December 31, 1992.[32] Second, they created strong incentives for those regional compacts and states without disposal sites to locate, license, and construct disposal facilities. Compacts and states not sited when the amendments were added face escalating disposal charges for using present disposal facilities. Furthermore, they must meet specific "milestones" in developing their own disposal facilities simply to maintain access to present disposal facilities. If these milestones are met, they are then rebated a portion of the previous surcharge.[33] The combination of these milestones, penalties, and rebates put the teeth in the act that were lacking in 1980. Congress intended for these changes to "provide sufficient inducement to persuade even recalcitrant States to become part of the low-level compact process and work diligently to open new disposal facilities."[34]

29. 131 Cong. Rec. S18108 (daily ed. Dec. 19, 1985) (statement of Sen. Bradley).
30. 131 Cong. Rec. S18107 (daily ed. Dec. 19, 1985) (statement of Sen. Hollings).
31. 42 U.S.C. §§ 2021b—2021i (Supp. V 1987).
32. 42 U.S.C. §§ 2021e(a)(3)(A) & (b)(1),(2),(3) (Supp. V 1987).
33. Prochaska, *supra* note 3, at 387. The specific surcharges, incentive payments, and penalties are contained in 42 U.S.C. §§ 2021e(d)(1) & (2) (Supp. V 1987).
34. 131 Cong. Rec. S18104 (daily ed. Dec. 19, 1985) (statement of Sen. Hart).

Perhaps most important, the amendments defined a "compact" as a compact between two or more states.[35] This limits exclusionary authority over out of boundary waste to compact regions, or conversely denies it to noncompact states by "[making] it clear that a noncompact state is not entitled to the exclusionary authority that Congress has conferred upon states that join in an interstate compact approved by Congress."[36] Senator Thurmond stated in the debate over the original act in 1980 that it does:

> give advance consent for exclusionary authority as a feature of such compacts. It is felt that the authority to exclude low-level waste generated in States outside the boundaries of a region is necessary to induce State participation in such compacts. Also, case law, including a decision by the U.S. Supreme Court in the case of *City of Philadelphia v. New Jersey,* 437 U.S. 617 (1978), indicates that an express congressional grant of exclusivity [sic] authority may be a necessary legal prerequisite to a host State's ability to exclude waste generated beyond the boundaries encompassed in a regional compact.[37]

Thus, Congress has twice declined to confer exclusionary authority upon "go-it-alone" states. Since these states are not members of a congressionally approved compact, they are precluded from exercising exclusionary authority over out-of-state waste.[38]

The remaining question is whether there is any sort of *implied* grant of exclusionary authority in the noncompact states in light of the fact that specific provisions are made for the existence of such states by the 1985 amendments. The legislative history of the LLWPA clarifies this issue: "[a]t one point in that history, various states and regions and the National Governors' Association successfully resisted a staff-written version of the act that would have permitted individual 'go-it-alone' states to exercise exclusionary authority. The House Energy Committee unanimously deleted this staff-supported proposal."[39] The result was a report by the House

35. 42 U.S.C. § 2021b(4) (Supp. V 1987).

36. S. Brand & E. Gressman, Memo to the Executive Committee of the Southeast Interstate Low-Level Radioactive Waste Management Committee on Legal Questions Raised by the Executive Committee 6 (Mar. 12, 1987) (available at the Office of the Governor of South Carolina, Energy and Nat. Res. Div.).

37. 126 Cong. Rec. S20136 (daily ed. July 29, 1980) (statement of Sen. Thurmond).

38. The applicable statutory language refers to "[a]ny *authority in a compact* to restrict the use of the regional disposal facilities *under the compact* to the disposal of low-level radioactive waste generated *within the compact region* shall not take effect before each of the following occurs: (1) January 1, 1993; and (2) the Congress by law consents to the compact." 42 U.S.C. § 2021d(c) (Supp. V 1987) (emphasis added). No where does the statute mention any authority of a noncompact state to exclude waste.

39. S. Brand & E. Gressman *supra* note 36, at 7 (citing Brown, *The Low-Level Waste Handbook* 30 (Nat. Governors' Assoc. Center for Policy Research, 1986)).

Interior Committee indicating that the 1985 amendments were "not intended to be construed to affect in any way authorities those states may have under other law to operate disposal site as they deem appropriate . . . States acting alone, however, are not considered by this committee to constitute compacts as contemplated under [the 1985 or 1980 acts]."[40] Thus, although it grants federal regulatory authority, the LLWPA is a grant of authority to exclude out-of-compact waste to compacting states, not authority to exclude out-of-state waste to noncompacting states. Read along with the House Interior Committee's report, the legislative intent of the act is to withhold the option to embargo low-level waste from individual noncompact states. Prior to the 1985 amendments, the act arguably implied that the noncompacting state option was preempted. More important, the 1985 amendments revoked the automatic grant of exclusionary power originally contained in 42 U.S.C. §2021d(a)(2)(B) and instead conditioned exclusionary authority of a compact on congressional approval.[41]

In the only case specifically addressing the LLWPA (prior to the 1985 amendments), the court in *Washington State Building & Construction Trades Council v. Spellman*[42] also concluded that the statute granted exclusionary authority solely to compacting states. In *Spellman*, the controversy was over a Washington State law that banned the importation of out-of-state low-level waste. Numerous plaintiffs, including the United States, challenged the statute, which a federal district court struck down on two grounds. First, the LLWPA preempted state regulation pursuant to the supremacy clause,[43] and second, the state law constituted a violation of the commerce clause.[44] The district court found that the 1980 LLWPA "constitute[d] a valid but limited grant of authority" in which only a "*compact* may preclude disposal of extra-regional waste in the *compact's* regional sites."[45] That decision was affirmed by the Ninth Circuit which held that the LLWPA granted exclusionary authority over waste only to congressionally approved regional compacts.[46]

Washington State argued in *Spellman* that the intent of the LLWPA was to grant regulatory authority over the waste to the states, including the immediate authority to exclude out-of-state waste. In rejecting this

40. H.R. Rep. No. 314, 99th Cong., 1st Sess. 22 (1985), *reprinted in* 1985 U.S. Code Cong. & Admin. News 2985.

41. Note, *Glowing Their Own Way, supra* note 17, at 664-65.

42. 518 F. Supp. 928 (E.D. Wash. 1981), *aff'd*, 684 F.2d 627 (9th Cir. 1982), *cert. denied sub nom.* Don't Waste Washington Legal Defense Foundation v. Washington, 461 U.S. 913 (1983).

43. S. Brand & E. Gressman, *supra* note 36, at 14, "where a state has not joined a congressionally approved regional compact in accordance with the 1980 and 1985 Acts, Congress has simply preempted the field of radioactive waste material." *Id.*

44. 518 F. Supp. at 931.

45. *Id.* at 932 (emphasis original).

46. 684 F.2d 630.

view, the district court pointed out that although the LLWPA speaks "merely" of state responsibility, only a "*compact* may preclude disposal of extra-regional waste in the *compact's* regional sites."[47] The Ninth Circuit in *Spellman* applied a commerce clause analysis in striking down Washington's ban on the importation of out-of-state nuclear waste.[48] Washington argued that radioactivity threatened the welfare of its citizens, but the court concluded that the law failed each part of the three-step commerce clause test: on its face, 1) it discriminated against out-of-state waste; 2) it fundamentally lacked a legitimate local purpose; and 3) it placed a significant burden on interstate commerce.[49]

Congress has made it clear that it does not intend to permit any exclusionary authority over out-of-state waste to the "go-it-alone" states. It has granted specific authority to *compacting states* and specifically withheld that power from noncompacting states. The die has thus been cast. The question now remains: what alternatives might still be viable for a state wishing to "go-it-alone"?

INTERSTATE COMMERCE AND THE NONCOMPACT STATE OPTION

The Commerce Clause

Several states have considered the possibility of going-it-alone and constructing their own facilities for the disposal of in-state waste.[50] Given the approaching December 31, 1992 deadline and the open door left by the LLWPA, the noncompact state option may appear enticing to various waste-producing states. However, if any individual state tries to ban the importation of low-level waste, "it is probable that the state's actions would be held to violate the commerce clause."[51]

It is a long standing principle of constitutional jurisprudence that the commerce clause contains an implied limitation on the power of the states to interfere with or impose burdens on interstate commerce.[52] The Supreme Court has historically applied an essentially two-tiered test in evaluating state action that burdens interstate commerce under the dormant

47. 518 F.Supp. at 932. See also, Note, *Glowing Their Own Way, supra* note 17, at 657-66 for a good discussion of federal preemption of regulatory authority in the low level waste area. The article points out that Congress assumed the power to control low-level radioactive waste that the state's have traditionally claimed in the interest of public health and safety. In enacting the LLWPA, Congress then gave back the limited authority to exclude waste only to states joining approved compacts.

48. *See* 684 F.2d 627.

49. 684 F.2d at 631; *see also*, Note, *Glowing Their Own Way, supra* note 17, at 675, n.145 and accompanying text. *See infra* notes 52-72 and accompanying text.

50. *See* Note, *Glowing Their Own Way, supra* note 17, at 656 n. 16.

51. *Id.* at 672.

52. *See e.g.*, Gibbons v. Ogden, 9 Wheaton. 1, 209-10 (1824).

commerce clause.[53] First, the Court must determine whether the state action discriminating against out-of-state commerce is "basically a protectionist measure."[54] The decisive factor is whether the state statute in question discriminates in favor of state interests.[55] An admitted or apparent economic motive which discriminates against interstate commerce renders a statute per se invalid.[56] The Court will further look beyond the stated innocuous purpose(s) of these laws, striking them down as facially discriminatory, because "the evil of protectionism can reside in legislative means as well as legislative ends."[57] Thus, even arguably honest motives may not be satisfactory if economic gain, whether or not intended, is the apparent result of the discrimination. If there are no discernible economic motives, the Court then considers whether "there is some reason, apart from their origin, to treat [out-of-state articles of commerce] differently."[58]

The state statute will be upheld only if the state can advance a legitimate state interest. Having asserted such an interest the state must make a credible showing of why that purpose justifies a discriminatory measure. If successful on that point, or if the burden on interstate commerce is even-handed (that is, it impacts equally on interstate and intrastate commerce), the Court proceeds to the second element of the commerce clause test: a balancing of the local interest against competing national interest

53. U.S. Const. art. I, § 8, cl.3. The commerce clause has been referred to as "dormant" because it is not preemptively prohibitive of regulation affecting interstate commerce. This regard for the "harmonious balance of our federal system, whereby the States may protect local interests despite the dormant commerce clause, allows state legislation for the protection of local interests so long as Congress has not supplanted local regulation either by a regulation of its own or by an unmistakable indication that there is to be no regulation at all." Hill v. Florida, 325 U.S. 538, 547-48 (1945) (Frankfurter, J., dissenting).

54. City of Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978); *see also* Note, *Glowing Their Own Way, supra* note 17, at 672-73 n.129 (citing Hughes v. Oklahoma, 441 U.S. 322, 336 (1979) (Court held Oklahoma statute to be invalid as facially discriminatory after inquiring whether or not it "regulates evenhandedly . . . or discriminates against interstate commerce . . . [and] whether it serves a legitimate local purpose.")); Raymond Motor Transp., Inc. v. Rice, 434 U.S. 429, 440 (1978) ("[S]tate legislation designed to serve legitimate state interests and applied without discrimination against interstate commerce, does not violate the commerce clause even though it affects commerce."); Hunt v. Washington State Apple Advertising Comm'n, 432 U.S. 333, 350-53 (1977) (held North Carolina statute discriminates against sale of apples by Washington growers in violation of the commerce clause "while leaving those of their North Carolina counterparts unaffected".))

55. Maltz, *How Much Regulation Is Too Much—An Examination of Commerce Clause Jurisprudence*, 50 Geo. Wash. L. Rev. 47, 50 (1981).

56. *City of Philadelphia*, 437 U.S. at 624; *see also* Note, *Glowing Their Own Way, supra* note 17, at 673.

57. Hughes v. Oklahoma, 441 U.S. 322, 337 (1979) (quoting *City of Philadelphia*, 437 U.S. at 626); *see also* Note, *Glowing Their Own Way, supra* note 17, at 673 n.131 (citing Dean Milk Co. v. Madison, 340 U.S. 349, 354 (1951) (if this were not the Court's approach, the commerce clause would be violated only "where a state artlessly discloses an avowed purpose to discriminate against interstate commerce")).

58. *City of Philadelphia*, 437 U.S. at 626-27.

in unrestrained commerce.[59] The degree of scrutiny applied by the Court under this balancing test will vary with (1) the "weight and nature" of the state's interest,[60] (2) the "substantial[ity]" of the burden on interstate commerce,[61] and (3) the availability of less burdensome means for achieving the state's purpose.[62]

The *City of Philadelphia v. New Jersey* case arose out of facts similar to those facing states considering the noncompact option in the low-level waste area. New Jersey passed a statute banning the importation of out-of-state solid waste.[63] The Court held this was facially discriminatory and hence a per se violation of the commmerce clause.[64] The Court did not, therefore, go on to balance the relevant state and federal interests.[65] Although he did recognize the health and safety purposes underlying New Jersey's law, Justice Stewart, writing for the Court, concluded that "the statute discriminated against articles of commerce coming from outside the state."[66] The Court, thus, rejected self-isolation as a permissible solution, indicating that the states must find some other means for dealing with waste disposal problems.

With the *City of Philadelphia* decision in mind, Congress exercised its power to exempt compacting states from the impact of dormant commerce clause jurisprudence.[67] The Supreme Court has recently stated, "[w]hen Congress so chooses, state actions which it plainly authorizes are invulnerable to constitutional attack under the commerce clause."[68] Therefore, Congress may "confe[r] upon the States an ability to restrict the flow of interstate commerce that they would not otherwise enjoy."[69] In *Lewis v. BT Investments Managers, Inc.*,[70] the State of Florida took the position that it was entitled to restrict out-of-state ownership of certain banking and investment businesses. The state argued that the applicable federal law permitted what it characterized as an "incidental burden" on interstate

59. *See* Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970); *City of Philadelphia*, 437 U.S. at 624.

60. *Raymond Transp., Inc. v. Rice*, 434 U.S. 429, 441 (1978); *Pike*, 397 U.S. at 142.

61. *Rice*, 434 U.S. at 445-46.

62. *Pike*, 397 U.S. at 144-45; *Hunt v. Washington State Apple Advertising Comm'n*, 432 U.S. 333, 354 (1977); *see also* Note, *Glowing Their Own Way*, *supra* note 17, at 674 & n. 137.

63. 437 U.S. at 618-19.

64. *Id.*, at 625-29.

65. Note, *Glowing Their Own Way*, *supra* note 17, at 674.

66. *Id.*, at 674.

67. S. Bland & E. Gressman, *supra* note 36, at 9.

68. Northeast Bancorp, Inc. v. Board of Governors, 472 U.S. 159, 174 (1985); *see also* White v. Massachusetts Council of Const. Employers, 460 U.S. 204, 213 (1983) ("Where state or local government action is specifically authorized by Congress, it is not subject to the commerce clause even if it interferes with interstate commerce.") *Id.* (citing Southern Pac. Co. v. Arizona, 325 U.S. 761, 769 (1945)).

69. Lewis v. BT Invest. Managers, Inc., 447 U.S. 27, 44 (1980).

70. *Id.*

commerce in furtherance of a "legitimate" state interest.[71] The Supreme Court disagreed stating that Florida had misapplied the federal statute. It did, however, reaffirm the principle that when federally sanctioned a state may be permitted to impede interstate commerce.[72] Under the prevailing jurisprudence, the commerce clause will likely work as a bar against efforts by individual states to ban low-level waste, as in the *City of Philadelphia* case.

It is now clear based on *Spellman, City of Philadelphia,* and *BT Investment Managers, Inc.* that any straightforward ban on the importation of out-of-state waste is likely to run afoul of the commerce clause. Thus, noncompact states must either seek a congressional mandate or be more creative in order to accomplish their goal of banning the importation of out-of-state generated waste.

The Quarantine Exception

Historically, the Supreme Court has recognized a quarantine exception to discriminatory state action otherwise proscribed by the commerce clause. States may exclude intrinsically noxious substances, while permitting the transportation of such items within the state to provide for adequate disposal.[73] Radioactive waste is intrinsically noxious and is potentially a much greater hazard to public health than the solid waste at issue in *City of Philadelphia.* A state might, therefore, plausibly argue that the quarantine exception applies to low-level radioactive waste.[74] The Court ruled this exception inapplicable in the *City of Philadelphia* case, because New Jersey did not evenhandedly impose restrictions on in-state garbage that it imposed on out-of-state garbage.[75]

So far, circuit courts have adopted the same reasoning in rejecting state efforts to restrict both high-level and low-level radioactive waste.[76] In *Illinois v. General Electric Co.*,[77] the court said that a law which arbitrarily burdens interstate commerce, by banning transportation of out-of-state items, violated the commerce clause. That case grew out of a dispute over an Illinois statute which forbade the shipment of spent nuclear fuel into the state for storage. The law did not, however, prohibit the *intrastate*

71. *See id.* at 42.

72. *See id.* at 47.

73. Note, *Glowing Their Own Way, supra* note 17, at 675 & n. 147 (citing Asbell v. Kansas, 209 U.S. 251, 256, (1908) (diseased livestock); Bowman v. Chicago & Northwestern Ry., 125 U.S. 465, 489 (1888) (infected rags and intoxicating liquors); Railroad Co. v. Husen, 95 U.S. 465, 473 (1877) (lewd women)).

74. *See* Note, *Glowing Their Own Way, supra* note 17, at 675, 676 & n.149.

75. *See* 437 U.S. at 628-29.

76. *See Spellman,* 684 F.2d at 631-32; Illinois v. General Elec. Co., 683 F.2d 206, 214 (7th Cir. 1982), *cert. denied,* 461 U.S.913 (1983).

77. 683 F.2d 206 (7th Cir. 1982), *cert. denied,* 461 U.S. 913 (1983).

shipment or storage of the same type of spent fuel. The only distinction it drew was between in-state and out-of-state generated waste.[78] The court noted:

> The efficient disposal of wastes is as much a part of economic activity as the production that yields the waste as a byproduct, and to impede the interstate movement of those wastes is as inconsistent with the efficient allocation of resources as to impede the interstate movement of the product that yields them.[79]

In other words, since Illinois cannot prohibit the importation of electricity or nuclear fuel, neither can it prohibit the importation of the "bad" by-products of those "goods."[80]

The *General Electric* court also recognized the well established quarantine exception to the commerce clause.[81] The traditional exceptions have occurred in transportation of things such as diseased cattle and infected rags.[82] The critical distinction between those situations and the Illinois law in question is that the "hostility" in the former was to the thing itself. With the latter, the hostility was not toward radioactive waste, rather it was toward the shipment and storage of that material generated outside of Illinois.[83] Though willing to condone "undiscriminatory hostility," the court did not accept the state's quarantine argument and struck the law as violative of the commerce clause.[84]

The analysis employed by the court in *General Electric* has been broadly accepted among the circuits thus far.[85] Therefore, a statute would have to target the transportation of *all* low-level waste, including intrastate, in order to rely on the quarantine exception. This, of course, would be counterproductive to the goal of the noncompact state. Under such a ban, the noncompact state would be unlikely to find a willing recipient for its own waste, much less a means by which to transport the waste without violating its own ban. The quarantine exception, therefore, is not going to provide the state with the shield it seeks to validly restrict out-of-state low-level waste.[86]

The Market Participant Doctrine

The Supreme Court, in *Hughes v. Alexandria Scrap Corp.*, established that the commerce clause analysis did not apply where states were market

78. *See id.* at 212-15.
79. *Id.* at 213.
80. "It is irrelevant that the traffic is in 'bads' rather than goods." *Id.* at 213.
81. *Id.* at 214.
82. *See supra* note 73.
83. Illinois v. General Elec. Co., 683 F.2d 206, 214 (1982).
84. *Id.*
85. Note, *Glowing Their Own Way, supra* note 17, at 676. *See, e.g.*, W.C.M. Window Co. v. Bernardi, 730 F.2d 486, 496 (7th Cir. 1984).
86. *See id.*

participants.[87] The market participant doctrine, simply put, holds that the commerce clause does not limit a state's right to refuse to do business with any party, particularly out-of-state firms, as long as the state is acting as a private actor in an interstate market of items rather than as a government regulator of that market.[88] If a state became a market participant in the sale of landfills for low-level nuclear waste, arguably it could restrict access to its landfills by out-of-state customers.

The *Alexandria Scrap* case dealt with a Maryland statute that placed a bounty on junked cars that were cleared from roadsides throughout the state.[89] The conflict was created by the statute's requirement that out-of-state car processors provide greater title documentation than in-state processors in order to collect their bounty.[90] Maryland argued that the discrimination was not unconstitutional since it was not a "regulation" of interstate commerce. The Supreme Court agreed that because the state had entered the market as a purchaser of junk cars the discriminatory statute was constitutional.[91] As a private actor in the junk car market, Maryland was free to do business as any other business entity would—that is, without restriction as to its clients or customers or the terms of its transactions.[92]

In *Reeves, Inc. v. Stake,*[93] the Court significantly expanded the market participant doctrine. At issue in *Reeves* was whether or not South Dakota could discriminate against out-of-state consumers by preferentially selling the "insufficient out-put" of a state-owned and operated cement plant to in-state consumers.[94] Finding that South Dakota, like Maryland in *Alexandria Scrap,* was acting as a market participant rather than a market regulator, the Supreme Court upheld this practice of discrimination.[95] Two points in this decision are of critical relevance to the low-level waste compacts and "go-it-alone" states. First, the Court emphasized the distinction between a "complex process" and a "natural resource." In *Reeves,* the Court found the cement to be the end product of a complex process rather than a natural resource. It expressly distinguished the *City of Philadelphia* case in which solid waste landfills were characterized as natural resources.[96] Second, the Court noted that it was of some significance that

87. 426 U.S. 794, 806-10 (1976).

88. *Id.* at 806-08; *see also,* Reeves, Inc. v. Stake, 447 U.S. 429 (1980).

89. 426 U.S. at 796-97.

90. *Id.* at 800-01.

91. *Id.* at 806.

92. *Id.* at 809-10. Of course, all relevant laws pertaining to commercial transactions applied to the state here as they would to any other business entity. *See infra* note 114 and accompanying text.

93. 447 U.S. 429 (1980). The decision was, however, by a five to four margin and was accompanied by a stinging dissent. *See id.* at 447.

94. *Id.* at 430.

95. *Id.* at 440-41, 446-47.

96. *Id.* at 442-44. The Court indicated that a cement plant was analogous to a railroad, a mill, or an irrigation system. *Id.* at 442 n.6.

South Dakota had not restricted access to its raw materials (limestone, etc.) needed to make cement nor prevented "other" private businesses from building cement plants within the state.[97]

The first question in applying the market participant doctrine to nuclear waste disposal is whether the current method of shallow land burial is a "complex process" or a "natural resource" under the *Reeves* distinction. The shallow trench disposal of low-level waste must be characterized as a complex process for noncompact states to have any chance of availing themselves of the market participant doctrine.[98]

> Although the Supreme Court considers simple irrigation systems to be complex processes, low-level waste sites may involve little more than shallow "trenches" with unsealed bottoms and mounded earth "caps." Therefore the sites superficially resemble the sanitary landfills at issue in *City of Philadelphia*, which the court found to be natural resources.[99]

However, several factors weigh in favor of low-level waste trench burial being caste as a complex process. First, solid waste disposal consists basically of compacting and burying the materials so that they become part of a landfill. Solid radioactive waste disposal, on the other hand, relies heavily upon soil geochemistry to minimize the dispersal of potentially hazardous radionuclides into the ground.[100] Perhaps even more important are the complex transportation and monitoring processes involved with low-level waste due to the radioactive nature of the material.[101] It is particularly the monitoring and potential clean-up technology required after accidents which are, if anything, likely to qualify low-level waste disposal as a "complex process" satisfying the requirement in *Reeves*.[102]

Another obstacle to successfully asserting the market participant doctrine was raised in *South-Central Timber Development v. Wunnicke*.[103] In this case, the Court significantly narrowed the doctrine by limiting the burden which a state may place on commerce to only the precise market in which it is a participant. In *Wunnicke*, Alaska was selling timber from state lands with the stipulation that this timber be processed within state prior to exportation. South-Central Timber sued on the grounds that Alaska was not a participant in the timber processing market and hence was

97. *Id.* at 444 & n.17.

98. *See* Note, *Glowing Their Own Way*, *supra* note 17, at 678. "[c]haracterizing waste disposal as a 'production process . . . could be determinative before the courts.'" *Id.* at 678 n. 166.

99. *Id.* at 678.

100. Hart & Glaser, *supra* note 8, at 655.

101. *See* Note, *Glowing Their Own Way*, *supra* note 17, at 678 & n. 170.

102. *See* Hansell, *The Regulation of Low-Level Nuclear Waste*, 15 Tulsa L.J. 249, 255-56 (1979).

103. 467 U.S. 82 (1984).

precluded from imposing any restrictions on that market. The Supreme Court agreed, noting that "[a]t the heart of the dispute in this case is disagreement over the definition of the market."[104] Defining the parameters of the "market" is crucial, because the market-participant state is not permitted to impose any conditions, by statute, regulation, or contract, that have a substantial regulatory effect outside of that particular market.[105] The Court concluded that "unless the 'market' is relatively narrowly defined, the doctrine has the potential of swallowing up the rule that States may not impose substantial burdens on interstate commerce even if they act with the permissible state purpose of fostering local industry."[106]

In the low-level waste area, narrowly defining the "market" is likely to restrict a market-participant state to in-state disposal only of waste which it has contracted to handle. For example, suppose the state tried to ban out-of-state waste by prohibiting the mere transportation of such waste through the state. Since it would not be bound for an in-state disposal facility, to do so would be regulation of the *transportation market* and thus probably void under *Wunnicke*. So even if a state were successful in opening and operating a disposal facility, its ability to control its "market" activities would be severely limited to ultimate disposal, solving only a small part of the problem.

There is a fundamental issue, however, which arguably calls into question the ability of a noncompact state to ever operate as a participant in the waste disposal market. Under the LLWPA, the authority and responsibility for regulating low-level waste was delegated to the states. Thus, the state must license and regulate the operation of any private facilities within the state.[107] Immediately, the noncompact state stands in a tenuous position as a true "market participant." The majority in *Reeves v. Stake* noted that other businesses could enter the cement market in South Dakota, implying that South Dakota would still be a true market participant. There are not, however, complex licensing and strict regulatory procedures in the operation of a cement plant comparable to the operation of a low-level radioactive waste disposal facility. The noncompact state may in fact be precluded from becoming a market participant by the delegation of regulatory authority in the LLWPA. In fulfilling its regulatory function, it is dubious whether the state could maintain dual status; that is, remain a market participant while simultaneously regulating such a complex industry.

Further, Justice Powell strenuously challenged the soundness of the

104. *Id.* at 98.
105. *Id.* at 97.
106. *Id.* at 97-98.
107. 42 U.S.C. §§ 2021c & 2021i (Supp. V 1987).

doctrine in *Reeves v. Stake*. Joined in dissent by three other justices, Powell noted that states frequently respond to market conditions on the basis of political rather than economic considerations. Acting in fact as a market regulator rather than a market participant, "it is a pretense to equate the State with a private actor. State action burdening interstate trade is no less state action because it is accomplished by a public agency authorized to participate in the private market."[108] Thus, noncompact states would at the very least find themselves suspect at every step of the way: licensing and regulation of other private facilities, operation of its own facility, dispute resolution, and so forth.

Consider the Texas plan. Texas does not prohibit the establishment of privately operated waste facilities within its borders.[109] It does, however, require each facility to be licensed by the Texas Radiation Control Agency.[110] The catch is that no facility may accept waste generated outside Texas, *unless* the state of origin has entered into a compact with Texas or has an operating disposal site that will accept waste generated in Texas. The effect is to regulate beyond the "market" in which the state is a participant.[111] Consequently, Texas' regulatory scheme would still be subject to commerce clause analysis. Bolstered by Powell's dissent in *Reeves*, this limitation is not likely to stand up under the *Wunnicke* decision. Regulation of a downstream market is likely to run afoul of the commerce clause despite the possibility that the state may be a legitimate market participant in a related market. The final result either way is that the state becomes more vulnerable to the unrestricted importation of out-of-state waste.

Another scenario appealing to the noncompact states is likely to meet with no more success. Masquerading as a market participant, a noncompact state might attempt to use the existing market forces to accomplish its goal of excluding out-of-state waste. The plan would be simple: establish a state subsidized pricing structure which is so low that it becomes economically unfeasible for any other profit seeking private business entity to operate a competing facility within the state.[112]

Two problems with this scheme immediately surface. First, the contrived use of state financial resources to subsidize such a system makes its "market participant" veil extremely thin. As a regulation, the plan would clearly violate the prohibition against state protectionist measures as pointed out in the *City of Philadelphia* case.[113] The second problem

108. Reeves, Inc. v. Stake, 447 U.S. 429, 449-51 (1980).

109. Prochaska, *supra* note 3, at 398 n. 99.

110. *Id.; see also* Tex. Rev. Civ. Sta. Ann. art. 4590f, § 6 (Vernon 1989).

111. Prochaska, *supra* note 3, at 398-99.

112. The surcharges established in the LLWPA are the *maximum* permitted by law. There is, however, no mention of a pricing floor on the disposal charges. *See* 42 U.S.C. § 2021e (Supp. V 1987).

113. *See* 437 U.S. 617, 624 (1978).

would be equally as debilitating to achieving the state's goal. When acting as a market regulator, a state is immune from antitrust scrutiny.[114] But where the state is acting as a market participant, it is subject to the federal antitrust laws just as any other private member of the marketplace.[115]

The Supreme Court clearly stated in *Jefferson County Pharmaceutical Ass'n, Inc. v. Abbot Laboratories*[116] that a state's exemption from antitrust law "does not apply where a State has chosen to compete in the private retail market."[117] In that case, a pharmaceutical association brought suit over Alabama's practice of buying pharmaceutical goods through its county hospitals, at reduced prices, then reselling them in direct competition with other suppliers in the market. The Court held that the Tenth Amendment did not shield those state purchases from the Robinson-Patman Price Discrimination Act[118] and any protection that did exist, such as consumption in traditional government functions, must be protected on a case-by-case basis.[119] The relevant portion of the Robinson-Patman Price Discrimination Act states:

> It shall be unlawful for any person engaged in commerce, in the course of such commerce, *either directly or indirectly,* to discriminate in price between different purchasers of commodities of like grade and quality . . . where the effect of such discrimination *may be* substantially to lessen competition or tend to create a monopoly in any line of commerce, or to injure, destroy, or prevent competition with any person who either grants or knowingly receives the benefit of such discrimination, or with customers of either of them. . . .[120]

Hence, Alabama was proscribed from using its financial position to discriminate against fellow private pharmaceutical vendors.

Likewise, a noncompact state attempting to set a discriminatory pricing structure will probably be in violation of the Robinson-Patman Price Discrimination Act. Deliberately granting discriminately low disposal prices to in-state waste producers would violate both the letter and the spirit of the law. Once liable for such violation, the state would also be subject to the damages[121] and possibly the injunctive relief[122] granted under the Clayton Act for antitrust violations.

Thus, the last vestige of hope for the noncompact state has succumbed to the various traps of the commerce clause and the realities of modern

114. *See* Parker v. Brown, 317 U.S. 341, 350-52 (1943).
115. South-Central Timber v. Wunnicke, 467 U.S. 82, 102 (1984) (Rehnquist, J., dissenting).
116. 460 U.S. 150 (1983).
117. *Id.* at 154.
118. 15 U.S.C. §§ 13(a) & (f) (1988) (amending the Clayton Act, 15 U.S.C. § 13 (1988)); *see Abbot Labs,* 460 U.S. at 152-55.
119. *Abbot Labs.* 460 U.S. at 155 n.6.
120. 15 U.S.C. § 13(a) (1988) (emphasis added). *See also, id.* § 13(f).
121. *See* Clayton Act, 15 U.S.C. § 15 (1988).
122. *See id.* § 26.

antitrust laws. A workable legal solution to excluding out-of-state generated low-level waste does not appear to exist.[123]

CONCLUSION

Having come full circle, there does not appear to be a viable solution for states that exercise the noncompact state option but desire the ability to exclude out-of-state waste. The LLWPA was enacted, then amended, with two purposes in mind. First, the responsibility for disposal of low-level radioactive waste was to be placed squarely with the states. Second, the act intended this to be accomplished through the formation of six to eight regional compacts evenly distributing this burden.

The most threatening, unanticipated barrier to this policy that emerged was that states did not form up as expected. The three current host states joined regional compacts in predictable form. However, many other states were so reluctant to even consider opening a disposal facility that a great deal of splintering occurred. Many states have compacted with neighboring states usually under some agreement containing triggering mechanisms which limit the amount of out-of-state waste a state must accept to a modest fraction of the waste they already generate.[124] The future of these "compacting states" is unknown. While states may currently comply with the letter of the federal law, Congress could amend the LLWPA as it did in 1985 to bring the system back in line with the spirit of its original vision.

The "go-it-alone" states are in an unenviable position for the time being. Originally, the Federal Government had preempted the entire nuclear waste arena. With the LLWPA as amended, Congress clearly left room for individual states to deal with low-level waste as they felt best—even if that included not joining the compact system. Presumably, it is the desire of a state choosing this course that it will be able to dispose of its own waste without having to accept waste from any source outside of the state. Several obstacles exist to this approach, however. First, the commerce clause is a solid prohibition against a single option state interfering with interstate commerce. The *City of Philadelphia* and *Spellman* decisions leave no real room for a state to place bald restrictions on interstate commerce.

Two notable exceptions to the commerce clause would appear to provide the answer. First is the quarantine exception. This is an established principle which permits the state to restrict the flow of interstate commerce

123. *See generally* Prochaska, *supra* note 3, at 398-98; S. Brand & E. Gressman *supra* note 36, at 13.

124. Considering volume reduction technology and the low threshold triggers, it is very likely that the volume of waste for which these states will be responsible will be even less than that which they are currently producing.

in items which are intrinsically dangerous and threaten the public health and welfare. Low-level radioactive waste certainly meets that description. The catch, however, comes in the court's analysis in the *General Electric* case. There the court acknowledged the exception, but stated that the "hostility" must be indiscriminate between in-state and out-of-state goods (or "bads" if you prefer). Hence, the quarantine exception would not serve the noncompact state's purpose since it would apply only if the state banned transportation of intrastate as well as interstate items of commerce.

The second exception to the commerce clause, and perhaps more important to the noncompact state, is the market participant doctrine. Under this principle, the state has the latitude to act as any other member of the market place when it assumes the position of market participant rather than market regulator. Essentially this means that it may do business, or not, with whomever it chooses. However, several traps lie awaiting along this path. The *Reeves* decision requires that the state not prevent other private entities from opening a facility within its borders, and the LLWPA delegates the authority and responsibility for licensing and regulating these sites to the states. Hence, the state may risk its very status as a private actor if it must license and regulate other private disposal facilities. As the *Wunnicke* decision points out, the Supreme Court has rather narrowly defined the meaning of "market" under this doctrine. Thus, the state would be extremely limited in the restrictions it could impose, lest they have an impact on some downstream market or any market outside the one which the state has entered.

The last and perhaps most fatal blow to the single option state comes in the form of statutory death. Putting all of the constitutional problems aside, the market-participant state is still obligated to adhere to the same strictures as any other private member of the market place. This includes the federal antitrust laws. Since the market-participant state is admittedly trying to control the low-level waste disposal industry within its borders, it is a prime candidate for antitrust problems. As seen in the *Abbott Laboratories* case, a state is subject not only to the relevant federal antitrust law but also to the accompanying remedy, which in *Abbott Laboratories* came in the form of treble damages *and* injunctive relief.

Given all of these factors, there is one logical conclusion. The noncompact state, while having the freedom to chose that path, is not likely to be able to prohibit the importation of out-of-state low-level radioactive waste. Congress could at any time remove this alternative to the regional disposal compact. That is not likely to occur until it becomes more clear whether the regional compact system nourished under the LLWPA will provide a safe, efficient, and equitable solution to low-level waste disposal. As of now, a state is free to go-it-alone; it simply will not be able

to guarantee that it can stop the shipment and disposal of waste generated outside of its borders.

Perhaps even more troublesome is the situation which has yet to occur. What would happen to a state that is not permitted, for whatever reason, to join a compact? This noncompact state would not enjoy a compact's exclusionary authority, nor would it be able to restrict the importation of out-of-state waste for the reasons discussed in this article. The LLWPA requires compacts to meet milestones and provides for surcharges to compacts which fall behind the statutory time frame. It permits noncompact states the option to go-it-alone so long as they also show progress toward providing for their own waste once the 1993 deadline arrives. What the LLWPA does not address, however, is what would happen to a state refused admission to a compact. If it were a new compact, it might not receive congressional approval; and the LLWPA mandates that existing compacts come up for congressional review every five years after their initial approval.[125] It is too speculative at this point, however, to say what Congress might do with such a sticky situation. Of course, Congress could amend the LLWPA again—but in what way? If it granted exclusionary authority to noncompact states, that would destroy the underpinnings of the entire regional system. A case-by-case consideration of involuntary noncompact states petitioning for such authority would, to say the least, be cumbersome if not impossible to administer.

For the time being, a regional compact system has emerged. It is stable, but its success will not be known for quite some time. However, one other thing is certain—the issues in this area of public policy are very fluid and dynamic. The LLWPA received one major revision five years after its enactment. With problems like the involuntary noncompact state looming in the not so distant future, the dilemma of low-level radioactive waste disposal is far from being resolved.

125. 42 U.S.C. § 2021d(d) (Supp. V 1987).