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POLICY GRIDLOCK IN WASTE MANAGEMENT: BALANCING
FEDERAL AND STATE CONCERNS

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ABSTRACT

Current federal hazardous and low-level radioactive waste management policies fail to balance national concerns for policy consistency with state concerns for equity, discretion, and adequate resources. Failure to balance these competing values has resulted in "policy gridlock"--exemplified by conflicts over the Resource Conservation and Recovery Act and the Low-Level Radioactive Waste Policy Acts. Both conflicts have resulted in recent U.S. Supreme Court litigation.

After reviewing federal-state conflict in hazardous and low-level radioactive waste management, we propose that the solution to gridlock lies in modifying conjoint federalism. Conjoint federalism allows for joint responsibility for waste policy between federal and state governments, with state programs meeting minimum standards set by federal programs. However, conjoint federalism does not currently allow for sufficient state discretion, which is paramount for successful waste management programs. Specifically, Congress should expand conjoint federalism, to allow states to charge differential fees on imported hazardous waste as is done for low-level radioactive waste. This expansion would encourage waste minimization and better interstate planning.

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POLICY GRIDLOCK IN WASTE MANAGEMENT: BALANCING FEDERAL AND STATE CONCERNS

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I. INTRODUCTION

In the United States, waste management administrative activities are performed by all levels of government. Protecting the public from waste-related hazards typically falls within the array of constitutional powers "reserved" to the states and their creations (*i.e.*, cities, towns, or counties). However, federal law, court precedent, tradition, and vastly greater financial resources compel the national government to ensure consistency in these policies.

This sharing of government authority--with federal supremacy--ensures that few waste-related issues "fall through the cracks." Since the 1980s, however, federal hazardous and radioactive waste policies have sometimes failed to balance national concerns for consistency with equally legitimate state concerns for: (1) equity (one state or region being disproportionately burdened with the responsibility for disposing of wastes produced elsewhere), (2) rule-making discretion, and (3) adequate resources for policy implementation.² In part, this failure to balance national and state concerns is the result of capacity and non-capacity states' failure to cooperate, at the same time as Congress failed to consider waste volumes as a planning issue.³ It has culminated in what we term "policy gridlock"--defined here as a direct challenge by states to the federal

government's attempts at permitting unrestricted flows of hazardous waste across state lines and forcing states to "take title" to low-level radioactive wastes generated by the nuclear industry. Gridlock is exemplified by several recent U.S. Supreme Court decisions on waste issues, discussed later in this paper, where state demands for greater equity and discretion have been challenged (see, *Chemical Waste Management v. Hunt, Governor of Alabama, et al.*; *Fort Gratiot Landfill v. Michigan*; *New York Petitioner v. U.S., et al.*)

We submit that resolving gridlock will require: (1) permitting a greater state voice in interstate transportation of hazardous waste; (2) ensuring sufficient future disposal capacity of hazardous and low-level radioactive waste; and (3) providing adequate resources for policy implementation and capacity planning.

Thus far, Congress has failed to fully encompass equity and efficiency concerns. While establishing compacts has ostensibly settled low-level radioactive waste equity issues, Congress has not gone as far in encompassing equity in hazardous waste programs. While the Superfund Amendments and Reauthorization Act and the Low Level Radioactive Waste Policy Act addressed future disposal capacity, the initial results of both programs are wrought with uncertainty. Finally, while states have negotiating power in facility siting under low-level waste legislation and general authority to administer health, safety, and environmental standards for hazardous waste, adequate resources for implementation of legislation are still lacking.

The key to ending gridlock lies in an extension of conjoint federalism. Conjoint federalism, the currently predominant form of national-state cooperation, allows for joint responsibility for waste programs with federal standard setting and state implementation. One proposed extension of conjoint federalism would incorporate the concerns of state governments in the implementation of waste programs by empowering states with more authority than is presently delegated. The national government will remain responsible for coordinating waste disposal activities at federal (e.g., Department of Energy and Department of Defense) installations and for providing financial and technical assistance to states. States should be responsible for enforcing federal mandates in the most safe and efficient manner possible, including charging differential fees for waste disposal in order to facilitate disposal capacity planning.

Following a discussion of how gridlock has come about, subsequent litigation, and legislative attempts to resolve it, we discuss patterns of conjoint federalism and show how its extension may address previous objections to federal waste policy.

II. HOW GRIDLOCK CAME ABOUT

A. **Low-Level Radioactive Waste Gridlock and Planning**

Gridlock in low-level radioactive waste (LLRW) management resulted from a crisis in public confidence over safety, not perceived equity. By the early 1960s, growing volumes of radioactive waste generated by the nuclear power

industry, coupled with opposition to continued dumping of wastes at sea, made it clear that continued "shallow-land burial" of LLRW at military and DOE sites around the country would no longer be feasible (Bullard, 1992). This crisis gave birth to an Atomic Energy Commission-licensed civilian waste disposal industry. Six commercial sites were opened throughout the U.S. between 1961 and 1971 (OTA, 1989).

By 1979 radioactive wastes leaking into groundwater at three of these sites (Maxey Flats, Kentucky; West Valley, New York; and Sheffield, Illinois) prompted their closure. Safety concerns at two of the remaining sites (Beatty, Nevada, and Richland, Washington) prompted a temporary shutdown of those facilities by order of their state governors, leaving South Carolina as the only state with a licensed facility able to accept commercial LLRW (OTA, 1989). Outraged by hosting the only "open" disposal site, South Carolina's governor announced a drastic plan to curtail acceptance of out-of-state LLRW by 50 percent over an 18-month period and ordered the state militia to turn back violators (Bullard, 1992). To avert a constitutional crisis, Congress passed the Low-Level Radioactive Waste Policy Act of 1980 (LLRWPA).

LLRWPA and Compacts

The LLRWPA made all states responsible for the disposal of most classes of commercial LLRW generated within their borders by the nuclear industry, universities, non-federal research and development institutions, and hospitals. The

1980 act also encouraged states to form "compacts" to spread the costs of developing new disposal facilities among several states and, in principle, to exclude disposal by waste generators from outside the region by 1986.

Encouragement of compacts, one of the most stable intergovernmental institutions that Congress could establish to resolve an environmental problem, was the most significant result of LLRWPA. As Bullard points out, because compacts are negotiated agreements between states--ratified by Congress--they afford the protection of contract law (Bullard, 1992). They can sue, deny access for breach of obligation (e.g., failure of any member to carry out its responsibilities), charge fees, and make binding decisions. Moreover, compacts were readily accepted by states as fair. In short, by 1980, the states were firmly convinced that they were far better qualified to protect their citizens and the environment from waste hazards, select appropriate technologies, choose disposal sites, and involve the public in grassroots decision-making over disposal facility siting than was the federal government (OTA, 1989; Bullard, 1992). Unfortunately, however, early resolution of equity issues proved short-lived.

Failure to Establish Durable Policy

This new interstate compact "regime" had four shortcomings, which eventually led to further gridlock. These shortcomings resulted from a combination of federal and state failures. First, Congress reserved the right to revisit the issue of ratification of state LLRW compacts every five years, putting

the durability of compacts' decisions at risk and partly contributing to the slowness of state efforts to site and build new LLRW disposal facilities (Bullard, 1992). In fact, by 1985, not a single compact had been formed, prompting Congress to pass the Low-Level Radioactive Waste Policy Act Amendments. Second, while the LLRWPA served as "a helpful guide for site development activities by providing milestones to measure siting progress through 1992" (the initial deadline agreed upon for opening of new disposal facilities), according to the Southeast Regional Compact Commission, Congress provided little legislative guidance on proceeding from the closure of old sites to the opening of the next generation of sites (Bremen, Buckner, and Visocki, 1992). Third, Congress kept delaying the date-- first from 1992 to 1993 and now to 1996 (by option of existing compacts) for compliance with the law. Fourth, the states have been slow to site disposal facilities. They have failed to: (1) develop implementing legislation; (2) select facility developers and managers; (3) provide liability protection for developers and managers of facilities; (4) involve the public and overcome legal challenges by public citizen groups; and (5) ascertain waste volumes to allow adequate planning.

This last problem was subsequently complicated by Congress through the 1985 Low-Level Radioactive Waste Policy Act Amendments. In this act, Congress instructed the Nuclear Regulatory Commission to exempt below regulatory concern (BRC) wastes from federal regulation, thus calling into question what future demand would be.⁴ There was considerable opposition by

many states to this proposal, due to public concerns that even slightly radioactive "trash" was not appropriate for shallow landfill disposal in municipal dumps. As a result, between 1985 and 1992 several bills were introduced in Congress to ban BRC disposal in solid waste landfills.⁵ Failure to totally resolve the BRC issue resulted in difficulties in capacity planning. While the federal BRC issue was resolved with passage of the Energy Policy Act of 1992, it nevertheless points out how future capacity demands have been an elusive goal.

Amendments to LLRWPA

Because of incessant delays in siting new facilities and frustration among the three-sited states, Congress was forced to revisit the LLRWPA in 1985, with passage of the Low-Level Radioactive Waste Policy Act Amendments (LLRWPAAs). In response to fears that sited states might again threaten to deny access to existing disposal sites, the LLRWPAAs allotted to each state a proportion of the annually available disposal space at existing facilities in South Carolina, Washington, and Nevada.

Access was contingent upon two conditions: (1) a state must prove to the satisfaction of an existing "host" state that it was making progress, either individually or in cooperation with other compact members, in siting a new disposal facility; and (2) continued disposal would only be guaranteed through 1992--by then new sites must be opened or states with commercial nuclear

generators would have to "take title" to LLRW generated within their borders by 1996.⁶

As a further incentive to ensure that the 1996 milestone would be met, the 1985 amendments permitted the three-sited states to collect a "waste surcharge" (fee) on all exporting states' wastes. The purpose of this surcharge was to encourage expeditious opening of new facilities. Monies would be "rebated" to states that opened new disposal sites.

LLRW and Planning for Future Capacity

There are two problems facing prospects for LLRW disposal capacity--one technical, the other political. Politically, delays in opening new disposal sites (especially in light of the recent U.S. Supreme Court ruling that states are not obliged to "take title" to LLRW after 1996, see Section II.C) are likely to necessitate longer than usual on-site interim storage of LLRW (Remick, 1992). The technical obstacle, equally ubiquitous, is that many utilities must soon reach decisions on relicensing nuclear plants.

There is considerable uncertainty over the volume of LLRW that would be generated if nuclear plants are relicensed. The uncertainty is twofold: (1) how much waste would be generated from refurbishment of nuclear plants and (2) how much from continued operations. Relicensing of existing nuclear plant requires refurbishment to upgrade plants to comply with the newest safety regulations. This could generate large volumes of LLRW with long-lived radioactivity (e.g.,

could be radioactive up to 500 years) through replacement of components in order to secure a 20-year renewed license. This additional generation could play havoc with LLRW management. Increases in LLRW generation from nuclear plant refurbishment may range between 15 and 90 percent greater than today's volumes, depending on the plant design and the needed refurbishment (NRC, 1991).

Finally, it should be noted that, independent of refurbishment, there is disagreement among utilities, NRC, and states over what future LLRW volumes are likely to be--making it difficult for states to undertake adequate capacity planning.⁷ Although waste from continued operation has been dramatically reduced in recent years through waste minimization and compaction, these efforts have reached a plateau (NRC, 1991). As a result, it is unclear what the total volume of waste will be in the future.

Some compacts assume that all operating nuclear plants in their regions may be decommissioned after their current operating licenses expire. Staggering refurbishment efforts or delaying off-site shipments of LLRW from refurbishment by extending on-site interim storage may be required as a temporary measure to prevent overloading the annually available disposal space at these new disposal facilities.⁸

B. Hazardous Waste Gridlock and Planning

Federal Legislation

Gridlock is partly attributable to Congress's regulatory framework for hazardous waste. Federal involvement began with passage of the Resource Conservation and Recovery Act of 1976 (RCRA). RCRA sets out the now-familiar "cradle to grave" regulation of industrial byproducts. Prior to RCRA "storage and disposal were outside the purview of government" (Bowman 1985: 132). Industry disposed of its waste onsite (in surface impoundments, for instance) or contracted with vendors for offsite disposal to minimize costs. Because cost minimization sometimes led to unsafe disposal, RCRA attempted to bring national regulation to hazardous waste.

RCRA established a comprehensive regulatory framework for hazardous waste.⁹ Its most important feature in this context was federal-state interaction--a pattern typical of many federal environmental policies.

Congress intended that states be involved in administering RCRA. While EPA would serve as lead federal agency for implementation, Congress assumed that "regulatory responsibilities would eventually be shouldered by state environmental officials" (Davis and Lester, 1988). After demonstrating that a state's program meets minimum federal standards (states may also develop more stringent standards) and possesses adequate enforcement mechanisms, EPA is authorized to allow for state management.¹⁰

While RCRA deals with hazardous waste generated through ongoing manufacturing processes (often referred to as recurrent generation), the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, or "Superfund") manages the cleanup of hundreds of abandoned hazardous waste sites. CERCLA was reauthorized in 1986, with the Superfund Amendments and Reauthorization Act (SARA).

While many provisions of SARA strengthen the cleanup process, one addresses avoiding future Superfund sites by mandating state planning for hazardous waste generation over the next 20 years. Specifically, Section 104(k) of SARA requires each governor to submit to EPA a capacity assurance plan (CAP) certifying that the state has 20-year capacity for hazardous waste treatment and disposal, either within its boundaries or through interstate agreement. Failure to submit what EPA deems an adequate CAP could result in a loss of Federal cleanup monies.¹¹

Anticipating needed hazardous waste capacity, as required under SARA, is difficult. Although EPA has issued guidance on how to make projections of future capacity need, the agency appropriately allowed for state discretion. This discretion, however, raises serious questions. There has not been a thorough national study on varying methodological processes used for projecting future demand and the implications of using different methodologies. Nor has there been a national comparison of projections for 1989 with actual generation for the same

year. While EPA Region IV might not be representative of the nation, a study of five states in the region discovered numerous inconsistencies (Peretz, et al., 1993). Various waste type and treatment classification systems employed across the five states and differing methodologies for estimating secondary generation from treatment activities could dispel any hope that the first round of capacity assurance plans (CAPs) accurately assessed national capacity (Peretz, et al., 1993). EPA recognizes many of the weaknesses of the first CAP submittals, and at EPA's and the states' agreement, the next round of CAP submissions should make important strides towards consistency. Nevertheless, this issue proves that the nation may still be a few years away from accurate projections of hazardous waste capacity.

Pressures among states and equity

There are growing tensions between capacity and non-capacity states in waste management equity issues, in what some have popularly termed the "civil war" of hazardous waste (Smothers, 1989). This war might have been resolved if EPA had addressed equity in the first round of CAPs.

EPA was, of course, the lead federal agency with oversight of the submittals of state CAPs. It developed guidance documents on what information should be included in CAPs, with input and assistance from the National Governors' Association (NGA). Despite NGA's assistance, the final guidance incorporated EPA's view of its responsibility for CAPs--a view that was markedly different from what the states viewed EPA's role to be. In essence, the states had

hoped that EPA would settle conflicts arising over interstate transportation issues. EPA, on the other hand, has been reluctant to assume any authority in mediating interstate transportation issues (Peretz, 1992). Since the CAP provision lacked clear delegation to EPA to mediate, the agency held to a strict interpretation of the law, much to the dismay of several states. Hence, as with other environmental legislation, EPA and the states had divergent views that fostered state-federal hostility.

In the best of times, EPA and the states do not always agree on their respective responsibilities or roles. As regards waste management, for example, Gormley in his study of EPA Region V states that "there is evidence of conflict between state and federal administrators" (Gormley, 1987). Wisconsin regulators, for example, believe more landfills need to be built, but are less likely to require liners for landfills (whether for hazardous or solid waste). He further points out that "state and federal attitudes are . . . likely to diverge" (Gormley, 1987). While Tobin's survey of state directors focused on air and water programs, his findings support the conclusion that the relationship between states and EPA can be strained. In particular, his survey found that "state directors almost universally feel excluded from effective consultation with . . . EPA" (Tobin, 1992). This finding is consistent with research on the relationship between states and EPA in the late 1970s that found state-federal coordination ineffective (Tobin, 1992; Rams, 1983).

Given the sometimes contentious relationship between EPA and the states and the development of a hazardous waste "civil war," a perceived lack of equity also caused gridlock in hazardous waste. The same equity claims made by South Carolina on LLRW based on a tension between capacity and non-capacity states were repeated during the 1980s by Alabama, South Carolina, Louisiana, and New York on the large amounts of hazardous waste coming into these states (Smothers, 1991). Confronted by the public's perceived risk to health and opposition to imported waste, governors proceeded to take action to limit the amount of waste coming into their states. South Carolina issued an executive order banning waste from states that "have implemented by statute, regulations or administrative action, barriers and restraints against the disposal of hazardous waste within their own borders" (Executive Order No. 89-03). The South Carolina executive order was designed to deal explicitly with cases such as North Carolina's adoption of more stringent discharge levels for aqueous treatment facilities than EPA's discharge levels. Following the lead set by South Carolina, the Alabama legislature passed similar legislation (Alabama Code Section 22-30-11).¹²

In both the low-level radioactive and hazardous waste areas serious, conflicts led directly to recent U.S. Supreme Court litigation.

C. U.S. Supreme Court

Three important decisions on waste issues were rendered by the Supreme Court in 1992. Two were related to interstate waste shipments and unsuccessful state attempts to restrict waste flows.¹³

As noted above, the Alabama legislature attempted to restrict waste flows into the Chemical Waste Management landfill in Emelle, Alabama, the largest hazardous waste landfill in the United States, by, among other things, imposing a higher fee on out-of-state disposed waste. Chemical Waste Management challenged the fee as a barrier to interstate commerce, and the Supreme Court ruled in June 1992 that the fee was an unconstitutional barrier. In an eight-to-one decision, the Court asserted that "no State may attempt to isolate itself from a problem [of waste disposal] . . . by raising barriers to the free flow of interstate trade" (in this case, hazardous waste) (*Chemical Waste Management v. Hunt, Governor of Alabama, et al.*). Although this case dealt with a higher fee on out-of-state generated waste, Justice Byron White went on to reaffirm the Supreme Court's 1978 decision in *Philadelphia v. New Jersey*. This seminal decision overturned a New Jersey statute restricting the importation of solid waste into New Jersey. The Court noted that "the . . . additional fee facially discriminates against hazardous waste generated in States other than Alabama . . . [and] such burdensome taxes imposed on interstate commerce . . . are . . . forbidden" (*Chemical Waste Management v. Hunt*).

Any state effort to restrict waste flows, however veiled, is a violation of the interstate commerce clause. In essence, only Congress can delegate to the states the power to limit or restrict the interstate transportation of waste.

The June 1992 ruling by the U.S. Supreme Court overturning the so-called "take title" provision of the LLRWPA reveals the reverse of this principle (*New York Petitioner v. U.S. et al.*). In this instance, the Court found that Congress cannot "commandeer" a state's legislative processes by compelling a state to enact and enforce a federal regulatory program. Instead such authority can only be exercised by private individuals.

Writing for the majority, Justice Sandra Day O'Connor ruled that Congress clearly has the authority, under the Constitution, to regulate the disposal of LLRW. However, since states are not entities formed by the federal government for the mere purpose of implementing federal mandates--but are semi-sovereign jurisdictions in their own right--the national government cannot compel them to enforce federal policy.

Instead, argued O'Connor, if a matter is deemed important enough to the federal interest to necessitate promotion of national standards, then Congress has a long-established and legitimately recognized right to "attach conditions on the receipt of federal funds" to encourage compliance with a federal mandate (*New York Petitioner v. U.S.*). Such conditions could include encouraging host states to impose "surcharges" on LLRW exporting states, as has been done. More

importantly, however, O'Connor noted that Congress may offer states the choice of regulating an activity according to federal standards or "have state law preempted by federal regulation" if public health or safety is potentially at risk.

The significance of this decision is that the Court resoundingly rejected the premise that states can be made liable for all damages waste generators suffer as a result of failing to locate a suitable disposal facility for LLRW. In essence, the federal government has no choice but to acknowledge the importance of involving the states in early, prudent planning for the management of LLRW. If the federal government forces states to act as agents for its own standards, it violates the separation of powers. While Congress can certainly regulate interstate commerce--and use that power to encourage state cooperation in seeking disposal methods for LLRW (which it did when it approved LLRW compacts)--it cannot delegate responsibility for disposal to states. It is obliged, instead, to encourage their co-management of the problem.

III. CHANGES IN CONJOINT FEDERALISM?

The hazardous waste sections of RCRA aptly fit within the framework of what David Welborn calls "conjoint federalism" because they require a "blending of national and state authority" (Welborn, 1988). According to Welborn, conjoint federalism is exemplified by "national authority . . . employed by EPA . . . for establishing criteria, standards, and conditions to apply in program

implementation. Responsibility for implementation is to be delegated to states if programs meet national requirements" (Welborn, 1988).

Another scholar has called this intergovernmental relationship "regulatory federalism." Regulatory federalism is the "imposition of regulations on state and local governments which are mandatory, far-reaching in impact, and involve substantial unreimbursed costs for affected jurisdictions" (Hamilton, 1990).

This relationship is precisely the composition of federal and state interaction that Congress perceived when RCRA was passed. Among the necessary elements that contrast conjoint federalism with other environmental programs are: national purpose and national perspective (a federal regulatory scheme that recognizes the nation's interest in environmental protection from potential hazardous waste contamination); national regulation if states choose not to participate (EPA will administer RCRA should a state choose not to); and state implementation based on a program meeting national standards (RCRA does not discourage stricter standards, but it does require states to meet minimum standards set out by EPA). While RCRA meets the criteria for conjoint federalism, the system it has established has nevertheless failed to resolve state concerns. The primary reason is that RCRA does not concede states discretion in vital areas of concern, such as the importation of wastes from other states. Does this flaw mean that conjoint federalism should be vacated and a new model of federalism adopted? Some have thought so.

In recent times, the most ambitious effort to devolve regulations to states in order to ostensibly address state concerns was Reagan's "New Federalism." Decentralization was to be effected through "numerous provisions for the delegation of program implementation responsibilities to states if they are willing to meet nationally specified conditions or standards" (Welborn, 1988).

Reagan outlined two specific initiatives in environmental and waste management policy, (1) "to create a more innovative and flexible regulatory and economic framework in which our environmental programs operate," and (2) "to bring environmental decisions closer to the people most affected by them" (Welborn, 1988). The issue of whether Reagan's legacy resulted in a genuinely new interaction between the federal and state governments is beyond the scope of this paper.¹⁴ However, one lesson of the 1980s is that states' ability to respond to environmental challenges depends on their capacity to enact discretionary policies. "The ability of state institutions to respond to change, to make decisions efficiently, effectively, and responsively, . . . is enhanced by resource richness and modernized structures" (Bowman and Kearney, 1988). However, research reveals considerable disparity among state governments in bureaucratic capabilities (Bowman and Kearney, 1988).

In addition, and much more seriously, the devolution of authority to states has not succeeded in assuring states' competence. While states have dramatically revised their constitutions, professionalized legislative staffs, modernized and

strengthened administrative accountability mechanisms, and even developed creative ways of financing environmental policy, according to Lester, not all states have been equally successful in adopting such reforms or assuming new responsibilities (Lester, 1990). One of the problems of requiring states to use their administrative resources to carry out federal standards without adequate capability is that the use of such resources adversely affects "the distribution of limited state resources and inhibits state initiative and managerial prerogatives" (Lavery, 1990). If states do not have the authority to charge differential fees, there is not an incentive for states to jointly plan to resolve intergovernmental environmental problems.

Moreover, states have undergone their own version of environmental gridlock. Because most states have been unable to replace the federal revenues in waste management planning that were severely cut in the early 1980s, they have reached their own impasse in cleaning up "Superfund" sites, siting new hazardous and low-level radioactive waste disposal facilities, and undertaking waste incineration and/or "waste-to-energy" projects (Lester, 1990).

Despite several years of experience with this so-called "new federalism" espoused by the Reagan and Bush administrations, the appropriate method for incorporating state concerns in hazardous and low-level radioactive waste management policy remains unresolved. Should conjoint federalism be replaced? The answer is an emphatic no.

The RCRA and LLRWPA regulations that establish national standards for public health and environmental protection are absolutely appropriate and necessary--especially when viewed in historical context. By the 1970s, it was clear that states were not equally able to respond to growing environmental problems; national standards were the only way to provide adequate protection. Likewise, RCRA's authority to allow states to develop more stringent standards is also appropriate, so long as the standards do not become an impediment to siting hazardous waste facilities. Similarly, federal LLRW policies that permit states to impose stricter dose limits or to amend BRC standards are also appropriate if they do not lead to delays in new disposal facilities.

The pattern of federal-state cooperation for resolving gridlock is an extension of conjoint federalism. This extension--which has emerged in meetings of the National Governors' Association and other fora--is characterized by the following: federal minimum standards are to be continued; however, state discretion in selected areas is permitted by congressional delegation. For example, the charging of differential fees for out-of-state versus in-state waste may be levied by states.¹⁵ Differential fees would serve several purposes. First, they may encourage pollution prevention. Second, they may facilitate state-to-state interaction and capacity planning (since governors would prefer that their industries' competitiveness not be jeopardized by another state's governor). Third, a rise in disposal costs should also lead to greater access to waste planning data

essential for capacity planning. These data should include waste volume projections and characterization of hazardous and low-level waste streams useful for facility design and engineering, particularly since planning for future capacity is mandated under both SARA and LLRWPA.¹⁶

IV. CONCLUSION

In a federal system with regulatory responsibilities divided between two layers of government, conflict is inevitable. Disagreements over responsibility, if not resolved at an early stage of policy implementation, are likely to result in gridlock. In the area of hazardous and LLRW management, gridlock was caused by a lack of federal attention to state concerns and is confirmed by recent U.S. Supreme Court decisions dealing with these waste issues. Gridlock resulted from failures to address waste volumes, insufficient planning for future capacity, and inadequate resources for program implementation.

While hazardous and LLRW policies evolved differently, they share significant similarities. Though concerns with LLRW equity grew out of concerns for safety, equity eventually came to the fore when South Carolina moved to limit access to the Barnwell disposal site. For many reasons, including state governors' concern with long-term management of LLRW, Congress responded to South Carolina's direct challenge of the Constitution's Commerce Clause by passing the LLRWPA.

Hazardous waste equity claims, on the other hand, grew from limitations in the regulatory framework Congress established, which increased defiance of federal authority by some net importing states. (e.g., Alabama). To date Congress has not bowed to state government pressures to limit the importation of hazardous waste.

In addition, both waste streams share a need for additional study to calculate whether adequate disposal capacity is available. As shown in the case of LLRW, utility decisions on nuclear plant refurbishment or decommissioning may have significant impact on future capacity. In the hazardous waste arena, there are many problems with the projected future demand included in the first capacity assurance plans required by EPA. The results of these plans raise doubts about their accuracy.

Finally, in a regulatory scheme that requires both federal and state involvement, states must be provided adequate resources to implement programs. As budgets become tighter, resource availability will no doubt become more constrained than it already is.

One way to balance federal standards with state concerns is through an extension of conjoint federalism in particular with hazardous waste. Compacts used for LLRW management are not an appropriate model because they are designed to manage a waste generated by a relatively small and uniquely licensed sector.

There are many more hazardous waste generators than LLRW generators, from the local dry cleaner to the large chemical company. Allowing hazardous waste generators flexibility in management facilities would provide choice, while at the same time compensating host states for the burden they are asked to bear. In addition, unlike LLRW where states are siting disposal facilities, the private sector, except in limited cases, selects the location for its own hazardous waste management facilities. Furthermore, there are doubts if additional siting of LLRW sites will come to fruition, even with states choosing their location (Bullard, 1992). Forcing the siting of new, unneeded waste management facilities is a problem that should be avoided--in both the hazardous and LLRW fields. Thus, it is probably unwise for hazardous waste planners to look to the LLRW PAA as a model to emulate.

Controversy over waste imports to Alabama--a situation paralleling South Carolina's a decade ago with LLRW--might be avoidable if Congress authorized the state to charge a differential fee. Thus, hazardous waste equity claims would be much better served by allowing states the option to charge differential fees (with some prescribed fee structure) on imported waste--a practice already employed for LLRW.

While the current federal regulatory system for waste may have led to profound disagreements, the system--with modification--is nevertheless an appropriate framework to resolve these disputes. There is, of course, an

unresolved constitutional dilemma beyond the realm of this paper: should Congress be allowed the authority to review a state taxation policy?

As one set of scholars note, "things are simply not going to be the same in federalism. . . . No one expects a return to the days of overwhelming federal dominance" (Fitzgerald, McCabe and Folz, 1988). National standards are essential for achieving the goal of environmental protection. However, most states are in a perfect position to assume administrative duties for managing these wastes as long as there are adequate resources for implementation of health, safety, and environmental standards.

ENDNOTES

1. David L. Feldman, Oak Ridge National Laboratory and The University of Tennessee's Energy, Environment and Resources Center; Jean H. Peretz, The University of Tennessee's Energy, Environment and Resources Center; Barbara D. Jendrucko, The University of Tennessee's Energy, Environment and Resources Center.
2. These same concerns are surfacing in solid waste management as Congress focuses its attention on the interstate movement of solid waste for treatment and disposal in the debate on reauthorization of the Resource Conservation and Recovery Act.
3. In this context, capacity means the availability of commercial treatment, storage, and disposal facilities.
4. A definition for below regulatory concern (BRC) has been proposed as LLRW suitable for disposal in a sanitary/industrial landfill that will not expose any member of the public to an effective dose equivalent of more than 4 millirems per year at the time of disposal (NRC, 1990).
5. BRC waste would in effect be disposed in solid waste landfills--similar to household garbage. See *Nuclear Waste--Slow Progress in Developing Low-Level Radioactive Waste Disposal Facilities*.
6. For example, on South Carolina, see "The Plan to Keep Barnwell Open Won Compact Approval," *Nuclear News*, March 1992, page 17.
7. William P. Dornsife, Acting Director, Bureau of Radiological Protection, Department of Environmental Resources, Commonwealth of Pennsylvania, Harrisburg, letter to NRC, March 10, 1992.
8. Though interim storage is a stop-gap measure, the Nuclear Regulatory Commission has ruled that generators may keep LLRW onsite so long as protection of the public complies with all existing regulations.
9. Other provisions in RCRA include (1) identification of wastes classified as hazardous. EPA was required to identify the characteristics of waste to be considered hazardous in generic terms and supplement this identification with a specific list of wastes that would be regulated as hazardous despite their characteristics. (2) Enforcement activity. The act allows for EPA site inspections of generators, federal enforcement of violations of any provisions set out in the law, and monitoring and testing of sites where release of hazardous waste may be a substantial threat to public health or the environment. (3) Establishment of

standards and permitting systems for generators and treatment facilities. Standards were developed for generators, transporters, and owners and operators of treatment, storage, and disposal facilities, including reporting systems. (4) Recordkeeping. RCRA initiated a national manifest system for tracking wastes from the point of generation to final disposal. Moreover, all treatment, storage, and disposal facilities were required to receive a permit for continued operation.

10. Section 6929 of RCRA could be interpreted to encourage stricter regulations. "Nothing . . . shall be construed to prohibit any State . . . from imposing any requirements, including those for site selection [for treatment, storage, and disposal facilities], which are more stringent than those imposed by such regulations."

11. "States failing to comply will lose the right to all but emergency cleanup funds from . . . Superfund" (*Congressional Record* S14924).

12. South Carolina and Alabama were angry over restrictive (or in the states' view prohibitive) siting standards established by other states, whether they were outright bans on siting, stricter standards than EPA's, or granting local governments veto power over the siting of treatment, storage, and disposal facilities.

13. In addition to the Alabama case, the Supreme Court also ruled on a Michigan case involving interstate waste flows of solid waste. This law disallowed acceptance of waste generated outside a county with a solid waste management plan. While the Supreme Court acknowledged that *Philadelphia v. New Jersey* dealt with out-of-state waste only, the Court also maintained that out-of-county waste should not be distinguished from out-of-state waste and overturned the Michigan statute. The Court noted the argument that the Michigan statutes "do not discriminate against interstate commerce on their face or in effect because they treat waste from Michigan counties no differently than waste from other States" (*Fort Gratiot Landfill v. Michigan*). But the Court disregarded this argument. Speaking for the majority, Justice Stevens noted that "a State (or one of its political subdivisions) may not avoid the strictures of the Commerce Clause by curtailing the movement of articles of commerce through subdivisions of the State, rather than through the State itself" (*Fort Gratiot Landfill v. Michigan*).

14. While in our view the principle of devolving regulatory authority is good, in reality the Reagan administration did not accomplish this goal. For further discussion on this, see Hamilton and Laverty.

15. It is clear that Alabama supports differential fees. Moreover, South Carolina, another importing state, endorses differential fees. See Wynne and Hamby, 1991.

16. Under LLRWPA, available disposal capacity is rationed among states that are members of compacts or that have become agreement states.

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**POLICY GRIDLOCK IN WASTE MANAGEMENT:
BALANCING FEDERAL AND
STATE CONCERNS**

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I. THESIS:

- A. Current federal hazardous and low-level radioactive waste management policies fail to balance national concerns for policy consistency with state concerns for—
1. Equity (one state/region disproportionately burdened with responsibility for disposing of wastes produced elsewhere),
 2. Rule-making discretion,
 3. Adequate financial resources.
- B. Failure to balance these competing values has caused **policy gridlock**.

II. POLICY GRIDLOCK:

"Direct challenge by states to federal attempts at permitting unrestricted flows of hazardous waste across state line and forcing states to 'take title' to low-level radioactive wastes (LLRW) generated by nuclear industry."

III. HOW WE GOT HERE:

A. Evolution of LLRW Gridlock:

1. Safety Problems—1961-1979.

2. Low-Level Waste Policy Act of 1980 and Low-Level Waste Policy Act Amendments of 1986.

—LLWPA established compacts for siting new facilities after threatened closure of existing facilities.

—Compacts have authority to establish differential fees and exclude waste.

—LLWPAA extended deadline for siting additional facilities (1993).

—Laws have failed test of "durability": insufficient capacity planning, public resistance to siting.

B. Evolution of Hazardous Waste Gridlock:

1. Resource Conservation and Recovery Act of 1976.

- First federal involvement in hazardous waste.
- Developed now-familiar "cradle-to-grave" regulatory scheme.
- Congress intended that states be allowed option of administering program after meeting federal standards.
- Difficult to anticipate waste capacity; tensions between capacity and non-capacity states; insufficient EPA authority to mediate disputes.

IV. GRIDLOCK AND U.S. SUPREME COURT:

A. *Chemical Waste Management v. Hunt, Governor of Alabama, et al.*

1. Differential fees charged on out-of-state waste violates Constitution's Commerce Clause.

B. *Fort Gratiot Landfill v. Michigan*

1. Although pertained to solid waste, no distinction between out-of-county and out-of-state waste; efforts to restrict either waste flow violates Constitution's Commerce Clause.

C. *New York Petitioner v. U.S., et al.*

1. Congress cannot delegate responsibility for disposal of LLRW to states; can, however, require compliance with federal goals through withholding funds.

V. FINDINGS:

A. Conjoint federalism—

- Allows joint federal/state government responsibility for waste policy.
 - Developed federal minimum standards to be met by state programs.
- ... **Does not** currently allow for sufficient state discretion (by allowing states to charge differential fees on imported hazardous waste) essential for success.

VI. RECOMMENDATIONS:

A. To resolve gridlock, Congress should:

1. Authorize states to charge differential fees on hazardous waste imports to ensure adequate disposal capacity.
2. Permit greater state voice in waste transport issues.

B. While compacts may be appropriate for managing interstate LLRW issues, their effectiveness in hazardous waste is questionable because:

- There are many more generators of hazardous waste, from local dry cleaner to large chemical company.
- May not allow generator flexibility to choose management facility and treatment options.
- Private sector traditionally sites treatment facilities.
- Doubtful that siting facilities under LLWPAA will come to fruition.

VII. CONCLUSION—CUTTING EDGE ISSUES:

- A. If Congress authorizes states to charge differential fees, what mechanism, if any, should be used to monitor state fee structure?
- B. Should Congress oversee state tax programs?