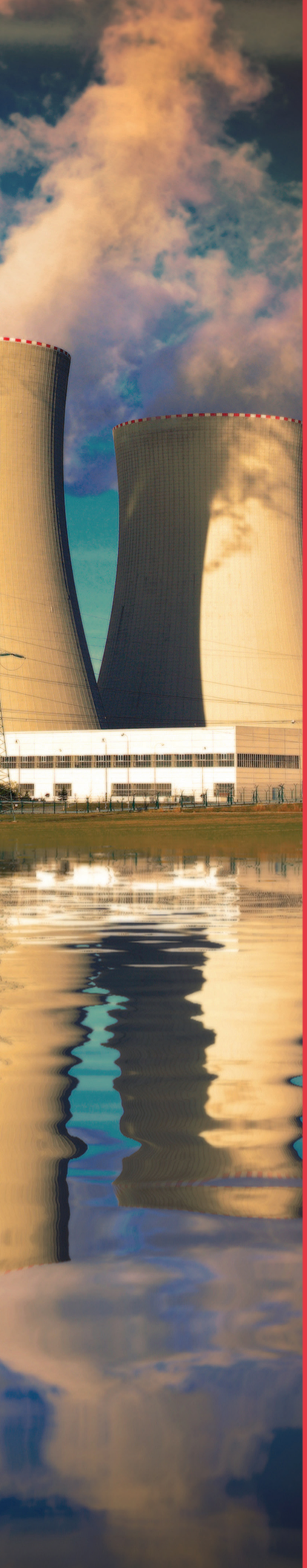

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State Regulatory Authority Over Nuclear Waste Facilities

In 2012, the Blue Ribbon Commission on America's Nuclear Future (BRC) called for a new, consent-based approach to siting disposal and storage facilities for spent nuclear fuel and high-level radioactive waste as the first recommendation in a comprehensive plan for overhauling the U.S. nuclear waste management program. In the decades-long history of the program, siting had emerged as "the most consistent and most intractable challenge" to the federal government's efforts to meet its nuclear waste management obligations. As the BRC observed, "[F]inding sites where all affected units of government, including the host state or tribe, regional and local authorities, and the host community, are willing to support or at least accept a facility has proved exceptionally difficult."

Rather than attempting to site nuclear waste facilities over the objections of host jurisdictions, the BRC concluded that success was more likely to result from a consent-based process that gave all affected levels of government, at a minimum, "a meaningful consultative role in important decisions." According to the BRC, a "meaningful role" could also include "direct authority over aspects of regulation, permitting, and operations where oversight below the federal level can be exercised effectively and in a way that is helpful in protecting the interests and gaining the confidence of affected communities and citizens."

This issue brief explores options for providing states and federal agencies with new regulatory authorities as one potentially critical element in making a consent-based siting regime for nuclear waste facilities work. It summarizes key points from a longer analysis prepared by Van Ness Feldman LLC (VNF) for the Bipartisan Policy Center's Nuclear Waste Initiative, which is exploring ways to advance the BRC recommendations. Specifically, VNF looked at whether an arrangement, in which federal agencies give a state some form of regulatory authority over a nuclear waste facility in exchange for the state's willingness to host that facility, could be accommodated under existing law. VNF also considered what changes to current law might be needed to allow such arrangements in the future.

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Background and Context

Current law leaves little meaningful room for a state regulatory role in assuring the radiological safety of storage or repository facilities for spent nuclear fuel and high-level radioactive waste. First, state regulation of these materials is preempted by the Atomic Energy Act (AEA); in addition, federal sovereign immunity bars states from regulating facilities operated by the U.S. Department of Energy (DOE). Likewise, states have only limited authority under state law or federal environmental statutes to regulate the non-radiological aspects of such facilities. Under the Nuclear Waste Policy Act (NWPA), states can veto the designation of a site for a federal waste repository, but the veto is subject to override by Congress (as occurred when Nevada, in the first and only attempt to exercise this option, sought to block the designation of Yucca Mountain as a repository site in 2009). A similar state veto option does not exist for facilities proposed by non-federal entities, though states may intervene in proceedings to license such facilities.

Options for Expanding the State Role

Giving potential host states a larger role in the licensing and regulation of nuclear waste management facilities would likely require changes to current federal law. Five options for expanding the state role are described below.

Option A: The Negotiated-Agreement

In this option, the Nuclear Regulatory Commission (NRC), as part of a consent-based siting agreement between DOE and a state, would agree to delegate some or most of its regulatory authority over a nuclear waste storage or disposal facility to a state. Such an agreement would make use of existing delegation provisions in Section 274 of the AEA but would require amendments to specifically extend these provisions to high-level waste and spent nuclear fuel. In addition, Congress would need to amend federal law to include a clear waiver of sovereign immunity and to establish that civil- and criminal-liability provisions related to a state's delegated authority could apply to DOE and its employees.

One drawback of this approach is that current provisions of Section 274 are limited to low-level radioactive waste and envision two-party agreements between the NRC and a state. The more complex job of regulating spent nuclear fuel and high-level waste would likely require agreement among three parties—DOE, the NRC, and the state—on a set of issues, including the host state's authority to set standards, impose license conditions, and regulate the radiological safety of a storage or disposal facility. Such a tripartite agreement might also include authority for the state to license the facility (subject to NRC approval) and enforce license requirements. Given the importance of any proposed agreement, it would likely be necessary to provide opportunities for public comment, and it might be advisable to include some form of "good neighbor" provisions to assure nearby states that this delegation of authority won't adversely affect the safety of their own citizens or resources. (The Clean Air Act provides possible models for such "good neighbor" provisions.)

Option B: The State Enforcement

Under this option, federal agencies—specifically, the NRC and the U.S. Environmental Protection Agency (EPA)—would retain regulatory authority over spent fuel and high-level waste storage or disposal facilities (including setting conditions, discharge and

emission limits, and the like), but a state would have authority to take enforcement action on its own behalf if it believed that the facility was not in compliance with federal regulations. This would require amending the AEA to authorize a state to enforce the terms of an NRC-granted license in cases where the NRC fails, after notice, to adequately enforce (or "diligently prosecute") these terms. This approach could be modeled on citizen suit provisions in existing federal environmental statutes, but could be restricted such that only the host state would have authority to initiate an enforcement action against a facility. The state would be authorized to seek the same remedies (e.g., penalties or an injunction) that the NRC would be authorized to seek against DOE or a private party. To implement this option, current law would also have to be changed to expressly waive DOE's sovereign immunity with respect to DOE-owned waste facilities.

Option C: The State Certification

Another option would be to amend the AEA or NWPA to provide a host state with authority to certify that a repository or storage facility meets state-established radiological safety requirements. This option could be modeled on provisions in Section 401 of the Clean Water Act that give states authority to regulate discharges of certain pollutants from sources, including nuclear power plants. The NRC would still be responsible for issuing licenses for repositories or storage facilities, but host states could adopt more stringent radiological safety standards than the federal standards, and the NRC could only issue a license if a facility met applicable state standards. (Amendments to current law could stipulate that state radiological standards are only enforceable for certain types of facilities and within the context of the certification procedure.) Under this approach, once a state certification was granted and a license was issued, the state would be prohibited from revisiting its decision or revising its own regulations to be more stringent. In other words, the host state would have just one chance to set requirements that address its specific concerns. It might also be prudent to clarify in any amendment that state approval or denial of certification requests would be subject to challenge by licensees in federal court under the federal "arbitrary and capricious" standard.

Option D: The State Certification and Enforcement Authority

This option effectively combines Options B and C above. The NRC would remain the primary license-issuer and would set minimum safety and operational requirements for a facility. However, the host state could impose additional radiological safety requirements, which would become obligatory components of the facility license. In addition, the state would be authorized to enforce those conditions or any other conditions of the license in case the NRC fails to enforce them. One issue to consider with this approach is whether the host state should be authorized to update its radiological safety rules after the license has been issued and to require the licensee to comply with the updated rules—for example, upon expiration of the license term. As with previous options, changes to current law are needed to allow states to establish their own safety regulations and to explicitly waive DOE's sovereign immunity.

Option E: The Change in Radionuclide Exemption

A fifth option is to remove the AEA's exemptions for radionuclides from federal water and hazardous-waste laws. As noted above, most federal environmental laws expressly exclude "source, special nuclear and byproduct material" from the scope of health, safety, and environmental regulation by EPA or the states, leaving the field to DOE and NRC. Absent clear language in these statutes authorizing EPA (or states where appropriate) to regulate the environmental and public-health impacts of radioactive waste, DOE retains broad authority over radioactive waste, with EPA and state regulators then only able to push on the margins of the process. Indeed, the BRC report discusses New Mexico's efforts to regulate aspects of the Waste Isolation Pilot Plant under RCRA (hazardous-waste laws) as a critical, positive element in the development of the site. (BRC report at 21.)

Non-Federal Facilities

Because storage facilities owned by non-federal entities may be part of a broader solution for getting the U.S. nuclear waste management program on track, policymakers may wish to consider amending the AEA to allow states to enter into NRC delegation agreements or tripartite agreements for the private storage or disposal of spent nuclear fuel or high-level waste in any quantity. DOE would retain its existing authority to propose and operate a repository or storage facility, but this option would also open the door to private solutions that could be licensed and primarily regulated by states, rather than by the NRC. Less dependence on congressional appropriations to make progress toward needed facilities could be an important advantage of this option.

Conclusion

Each of the options summarized above has advantages and disadvantages. As already noted, the negotiated agreements option (Option A) requires giving the relevant parties (NRC, DOE, and the host state) greater latitude to work out mutually satisfactory arrangements. However, that degree of flexibility may be unacceptable to Congress and various stakeholders, who may be concerned that it could lead to inadequate protection of public health and safety on the one hand, or invite a degree of state regulation that is unworkable on the other hand. Compared with entering into open-ended, tripartite negotiations with host states, DOE and the NRC might instead prefer giving the states greater enforcement authority while retaining their existing regulatory authority (Option B). But this option may be insufficiently attractive to states, which may wish to be able to set regulatory requirements rather than merely enforcing them.

Two options considered—state certification, with and without state enforcement authority (Options C and D, respectively)—would address this concern by giving states the opportunity to unilaterally set their own regulatory requirements for spent nuclear fuel and high-level waste storage and disposal facilities. Option C would constrain this opportunity to some extent: states could set their requirements only once and could not enforce them. From DOE's point of view, this approach would provide greater certainty about what the ground rules are; on the other hand, a state's ground rules could be so stringent as to make a project infeasible. By contrast, Option D—which combines state certification and enforcement authority—provides for a more expansive state role. States could establish safety standards that are (presumably) stringent enough to satisfy their citizens, thereby addressing one key objection to the current federally dominated approach. States would also have the ability to enforce license terms, which would presumably assuage the concern that federal regulators might be insufficiently motivated to monitor and enforce safety standards at a facility once it is sited. As with Option C, however, states could use their expanded role to effectively preclude the siting of any facility within their borders, simply by imposing requirements or standards that would be impossible to meet.

Option E involves a fundamental shift in law and is therefore controversial—thus far it has received public support only from the environmental side of the ledger. That said, ending the AEA exemption unquestionably solves the matter of meaningful state oversight and consent. Importantly, it also does not carry with it the substantial likelihood that Congress would impose terms and modifications on states years into a good-faith negotiation on a site. Indeed, while it would be possible for a future Congress to revisit the AEA and reinsert exemptions from environmental law, it would have to do so in a manner that would remove overdue jurisdictional authority from all states (alternatively, Congress would have to single out one state for special treatment). The difficulty of prevailing over the interests of all 50 states rather than simply amending legislation that affects the interests of just one state should be obvious. States would be

able to set regulatory standards (rather than just enforcing them) and any such standards would apply to private or federal sites. But the difficulties associated with Option E are significant and apparent. Industry explicitly opposes changing the current exemption for radionuclides as it would alter more than half a century of law. Further, harmonizing such a change with appropriate NRC licensing jurisdiction over facilities and waste and with EPA's existing jurisdiction over radiation standards would require a lengthy rulemaking process (but so, for that matter, would any new repository or consolidated storage standards).

In sum, several options exist for giving states a greater role in the regulation of nuclear waste storage or disposal facilities. Moreover, any of these options could be adapted to non-DOE storage facilities and could be helpful in gaining state acceptance of such facilities. (Waiving sovereign immunity would, of course, not be necessary in the case of a facility that is owned by a non-federal entity.) Further stakeholder input may be needed to identify which of these options for increasing the state role is most promising and most likely to be helpful to advancing a consent-based siting process.

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