NRDC’s Response to S. ____.

To establish a new organization to manage nuclear waste, provide a consensual process for siting nuclear waste facilities, ensure adequate funding for managing nuclear waste, and for other purposes.

Introduction

Chairman Wyden, Ranking Member Murkowski, and Senators Feinstein and Alexander, thank you for providing the Natural Resources Defense Council, Inc. (NRDC) this opportunity to present our views on your discussion draft of S. ____., a bill to establish a new organization to manage nuclear waste, provide a consensual process for siting nuclear waste facilities, ensure adequate funding for managing nuclear waste, and for other purposes (hereinafter, “Nuclear Waste Discussion Draft”). Last fall, NRDC testified on S. 3469 – the template for the Nuclear Waste Discussion Draft – before the Energy & Natural Resources Committee. We reference our testimony on S. 3469 throughout our response this day and include it as a resource for the Senators and staff.¹

Mission Statement

NRDC is a national, non-profit organization of scientists, lawyers, and environmental specialists, dedicated to protecting public health and the environment. Founded in 1970, NRDC serves more than one million members, supporters and environmental activists with offices in New York, Washington, Los Angeles, San Francisco, Chicago and Beijing. We have worked on nuclear waste issues since our founding, and we will continue to do so.

Overview of NRDC’s Response to Questions

We commence our comments on the Nuclear Waste Discussion Draft with disappointment over severing S. 3469’s clear and careful linkage between storage and disposal. Specifically, no “temporary” storage facility should become a permanent one, and this discussion draft, if it becomes law, invites just such an outcome.

A strong linkage that never allows an interim or temporary storage site to become a de facto repository should guide the legislative process. NRDC concurs with former Chairman Bingaman’s caution that whatever case made for interim storage can be done “only as an integral part of the repository program and not as an alternative to, or de facto substitute for, permanent disposal.” Such caution is consistent with decades of national policy and the purpose of the Nuclear Waste Policy Act (NWPA), 42 U.S.C. § 10131(b)(1). Indeed, while we expressed concerns that the pilot program offered in S. 3469 upset the likelihood of a strong repository

program, the evisceration of the linkage between storage and disposal found in this Nuclear Waste Discussion Draft dooms the process, and virtually guarantees a repeat of the mistakes made in the failed Yucca Mountain effort.

Specifically, severing strong links between contemporaneous progress on storage and disposal options removes meaningful impetus for adherence to the principle that waste from the nation’s nuclear weapons program and its commercial nuclear power plants must be buried in deep geologic repositories, permanently isolated from the human and natural environments. The primacy of geologic disposal as the solution for nuclear waste is consistent with more than 50 years of scientific consensus and, and, most recently, with the findings of President Obama’s bipartisan Blue Ribbon Commission on America’s Nuclear Future (BRC). No other solutions are technically, economically or ethically viable over the long term for the environment and human society, and NRDC strongly supports the development of a science-based repository program that acknowledges the significant institutional challenges facing spent fuel storage and disposal. Advancing this Nuclear Waste Discussion Draft without reinstating a strong link between storage and disposal does grave harm to the effort to find a final solution for nuclear waste.

We remind you the United States attempted to sever the link between interim storage and final disposal previously, only to conclude doing so was a mistake. Beginning in 1957, the Atomic Energy Commission (AEC) pursued a geologic repository program for high-level radioactive waste (HLW) in a salt deposit near Lyons, Kansas. Opposition initially came from the Kansas Geological Survey but soon spread. Concerns over conditions in the mine, the presence of numerous oil and gas wells in the vicinity, and the fact that there was solution mining at an operating adjacent salt mine operated by American Salt Company forced the AEC to abandon the site in 1972. Following the demise of the Lyons repository effort, later in 1972 the AEC announced it intended to develop a 100-year Retrievable Surface Storage Facility (RSSF). The U.S. Environmental Protection Agency (EPA) and others opposed this interim storage proposal because it diverted attention and resources from efforts to find a permanent geologic disposal solution. As a consequence of this opposition, the Energy Research and Development Agency (ERDA) abandoned its plans for a RSSF in 1975. The similarities of this history with failed attempts to force acceptance of the proposed Yucca site should be apparent.

As we have noted repeatedly over the last few years, the success of any legislative outcome depends on a consensus process that— (1) recognizes that repositories must remain the focus of any legislative effort; (2) creates a coherent legal framework before commencing any geologic repository or interim storage site development process; (3) arrives at a consent-based approach for nuclear waste storage and disposal via a fundamental change in law; (4) addresses storage in a phased approach consistent with the careful architecture of S. 3469 and NRDC’s suggestions; and (5) excludes polarizing closed fuel cycle and reprocessing options from this effort to implement the interim storage and ultimate disposal missions. The Nuclear Waste Discussion Draft is a retreat from some of the better aspects of last year’s S. 3469 and we urge the Senators to go back to that earlier template and to incorporate the suggestions that follow.
Questions from the Senators

1. Should the Administrator take into account, when considering candidate storage facility sites, the extent to which a storage facility would: (a) unduly burden a State in which significant volumes of defenses wastes are stored or transuranic wastes are disposed of; or (b) conflict with a compliance agreement requiring the removal of nuclear waste from a site or a statutory prohibition on the storage or disposal of nuclear waste at a site? Alternatively, should the State and other non-federal parties seeking to site a candidate storage facility be allowed to determine whether they are unduly burdened? Should the final consent agreement, which would be sent to Congress for ratification, contain an authorizing provision to amend any conflicting compliance agreement or statutory prohibition?

NRDC Response:
This first question has several parts and presumes the viability of consolidated interim storage sites as defined by the Nuclear Waste Discussion Draft. In order to present an orderly response to the important ideas contained in the question, we begin with (a) our prescription for how to address a pilot project for consolidated interim storage and avoid supporting closed nuclear fuel cycles; we then turn to the questions’ related matters of (b) undue burdens on states and (c) meaningful state authority. We conclude the response with (d) our prescription for meaningful state authority.

To understand our specific responses, we begin with four general observations:

1.) Consolidated storage of spent fuel from currently operating reactor sites at an alternate, previously greenfield site is unnecessary and ill-advised. Any pilot project for consolidated storage should be limited to hardened, dry-cask storage of stranded spent fuel from shut down reactor sites.

2.) If emergency conditions arise at an existing operating reactor site, e.g., due to an earthquake, discovery of a fault under the reactor(s), or a disaster related condition, that threatens the environment and public health, the reactors should be shut down and the spent fuel at the site would qualify as stranded spent fuel.

3.) Existing and currently operating reactor sites have government and implicit public consent for interim storage of spent fuel.

4.) Consolidated spent fuel storage should not be viewed as a step toward, or means of furthering, spent fuel reprocessing.

(a) NRDC’s Support for Interim Storage Pilot Project at a Commercial Reactor Site
As preliminary matter, NRDC is not opposed in principle to commencing work on consolidated interim storage, and development of an interim storage facility for stranded fuel. Indeed, we proposed a set of steps to develop a pilot interim storage option in our testimony on S. 3469.

Specifically, NRDC sees merit in a pilot project to address the total stranded spent fuel at closed reactor sites (currently eleven sites), and where spent fuel is stored in dry casks within one or more hardened buildings similar to the Ahaus facility in Germany. Potential volunteer sites
already demonstrating “consent” are found in operating commercial reactors. The utility of using existing commercial operating reactor sites rather than burdening new areas with spent nuclear fuel should be apparent. Far less in the way of new infrastructure is required and the capacity for fuel management and transportation is already in place, along with consent necessary for hosting nuclear facilities in the first instance. And by keeping consolidated, interim-stored spent nuclear fuel under the guardianship of the nuclear industry that produced the waste in the first instance, Congress ensures that careful progress will continue with the necessary repository program.

Further, the Nuclear Waste Discussion Draft is silent on an important matter – the current configuration of spent fuel storage at a number of operating reactor sites. The BRC cited no evidence for why continued reliance on densely-packed wet storage should be accepted as adequate in light of the health, safety and security risks that interim wet storage poses. This is true regardless of the seismic, population density, or other natural factors that might create concern with the current storage configuration. NRDC and others noted the BRC was negligent in not recommending that Congress statutorily direct movement of spent fuel from wet pools to dry casks as soon as practical, i.e., as soon as spent fuel has cooled sufficiently to permit safe dry cask storage, generally about five to seven years following discharge from the reactor. We again urge Congress to act on this issue in this legislation or even a stand-alone bill.

To reiterate, a pilot interim storage project housed at an existing commercial reactor site addressing issues of stranded fuel would go far in addressing a number of public safety and environmental harms, do no damage to a carefully constructed bill that focuses on repository development, and presents an option of greater efficiency and expediency.

By contrast, the unlimited interim storage allowed for in the Nuclear Waste Discussion Draft, regardless of the state of repository program, is an expedient course for the narrow financial interests of industry, does little to advance final repository solutions, and sets up a clear set of incentives for reprocessing and fast reactors. This is an enormous step back from S. 3469. Last year former Chairman Bingaman noted:

"The Commission wisely resisted the allure of reprocessing, concluding that there is “no currently available or reasonably foreseeable” alternative to deep geologic disposal. In short, we need a deep geologic repository. Even if we were to reprocess spent fuel, with all of the costs and environmental issues it involves, we would still need to dispose of the radioactive waste streams that reprocessing itself produces and we would need to do so in a deep geologic repository."

NRDC concurs. No limit consolidated interim storage increases the probability of continued efforts at reprocessing the spent fuel, resulting in plutonium separations with no way to ensure that the plutonium would not be used to make nuclear weapons. Inclusion of incentives for reprocessing and fast reactors would necessitate NRDC’s objection to such nuclear waste legislation. In addition, reprocessing is expensive, environmentally disastrous, and a serious non-proliferation threat. As the BRC found, reprocessing is also not a viable waste management strategy because it does not significantly reduce the radioactivity of the waste that must be stored
in a repository. Indeed, just as for spent fuel, we must also work to resolve the path to a repository for the millions of gallons of dangerous, highly radioactive waste generated by spent nuclear fuel reprocessing in the United States over the past half century.

In contrast to this setup for reprocessing and fast reactors, NRDC’s recommendation of an interim storage pilot project that is strictly limited to existing commercial operating sites avoids many of the burdensome problems posed and assumed in the question. First, our consolidated pilot proposal gets the ball rolling on spent fuel almost all parties agree is “stranded.” Second, with its strict limit to shut down reactors and careful attention to establishing appropriate safety criteria, any such interim site could solve immediate public safety risks but not take the air out of meaningful progress geologic repository program.

(b) Undue Burdens
Turning to the specific subparts of the question about consolidated storage sites, NRDC asserts that any Administrator of a federal nuclear waste program should take into account a host of factors in considering equities of nuclear waste disposal, including existing burdens of defense-generated HLW or transuranic (TRU) waste, cleanup/compliance agreements, and statutory prohibitions against import of nuclear waste. Other considerations must include: an assessment of existing infrastructure and the potential for consent for spent fuel management; environmental justice; and reducing the need to unnecessarily transport spent fuel prior to final disposal in a repository.

Addressing the alternative question posed, of whether a (1) State should be allowed to determine the extent of any “undue burden,” or (2) should any final consent agreement contain an authorizing provision to amend conflicting compliance agreements or statutory prohibitions, NRDC notes that the Senators’ question suggests States – if operating consistent with the text found in Section 304 of Nuclear Waste Discussion Draft – could somehow have meaningful oversight roles, which we address at length below.

(c) State Authority
As a first matter, NRDC does not believe the Nuclear Waste Discussion Draft provides full and clear authority to States to determine the extent of any undue burden or necessarily to negotiate conflicting compliance agreements or statutory prohibitions. As we noted last fall, while several components of subsection 304(f) have merit – as it provides language responsive to the BRC’s recommendation that any successful approach must be “consent based” and allow affected States and communities to retain control – the proposed legislation falls short of the mark in developing solutions and in way that sheds light on the Senators’ query.

Section 304 provides allowances for any recipient state to have regulatory oversight authority and authority over operational limitations at either a storage or disposal site. Such things are crucial recognitions of the need for meaningful state oversight that have been missing from previous efforts at nuclear waste disposal. Equally important is the statutory requirement that Congress must ratify (and, assuredly, the President must therefore sign) any consent agreement.
And finally, the statutory direction that neither party (the federal or state government) may unilaterally amend or revoke the contract is a concept that NRDC fully supports.

But for all those laudable qualities in Section 304, we believe the suggested consent agreements will not solve the fundamental problem facing nuclear waste disposal nor allow States the oversight role suggested by the Senators’ question. Rather, Congress, with its firm understanding of federalism, should legislate a role for states in the matter of nuclear waste disposal by amending the Atomic Energy Act (AEA) to remove its express exemptions of radioactive material from environmental laws.

State, local and tribal governments must be central in any prescription for a successful repository and waste storage program. The BRC recognized as much and noted federal and state tensions are often central in nuclear waste disputes. The BRC’s Final Report states in pertinent part:

We recognize that defining a meaningful and appropriate role for states, tribes, and local governments under current law is far from straightforward, given that the Atomic Energy Act of 1954 provides for exclusive federal jurisdiction over many radioactive waste management issues. Nevertheless, we believe it will be essential to affirm a role for states, tribes, and local governments that is at once positive, proactive, and substantively meaningful and thereby reduces rather than increases the potential for conflict, confusion, and delay.

Final Report at 56 (citation omitted).

Without fundamental changes in the law to address such federal, state and tribal tensions, we will never approach closure and consent on transparent, phased, and adaptive decisions for nuclear waste siting. Indeed, even if such a provision as Section 304(f) is enacted into law, we think it likely disputes will continue unchecked unless Congress avails itself of the opportunity to finally suggest a decades-overdue change in the law which we will now explore in more detail.

(d) NRDC’s Prescription for State Authority – Remove the AEA’s Exemptions from Environmental Law
A meaningful and appropriate role for states in nuclear waste storage and disposal siting can be accomplished in a straightforward manner by amending the AEA to remove its express exemptions of radioactive material from environmental laws. The exemptions of radioactivity make it, in effect, a privileged pollutant. Exemptions from the Clean Water Act and the Resource Conservation and Recovery Act (RCRA) are at the foundation of state and, we submit, even fellow federal agency distrust of both commercial and government-run nuclear complexes.

As the Senators are aware, 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 Department of Energy (DOE) and Nuclear Regulatory Commission (NRC). In the absence of clear language in those statutes authorizing EPA (or states where appropriate) to regulate the environmental and public health impacts of radioactive waste,
DOE retains broad authority over its vast amounts of radioactive waste, with EPA and state regulators then only able to push for stringent cleanups on the margins of the process. Indeed, the BRC Report discusses the State of New Mexico’s efforts to regulate aspects of the Waste Isolation Pilot Plant under RCRA as critical positive element in the development of the currently active site (Final Report at 21). The NRC also retains far reaching safety and environmental regulatory authority over commercial nuclear facilities, with agreement states able to assume NRC authority, but only on the federal agency’s terms.

States are welcome to consult with the NRC and the DOE, but the agencies can, and will, assert preemptive authority where they see fit. This has happened time and again at both commercial and DOE nuclear facilities. This outdated regulatory scheme is the focal point of the distrust that has poisoned federal and state relationships involved in managing and disposing of HLW and spent nuclear fuel, with resulting significant impacts on public health and the environment.

If EPA and the states had full legal authority and could treat radionuclides as they do other pollutants under environmental law, clear cleanup standards could be promulgated, and the Nation could be much farther along in remediating the toxic legacy of the Cold War. Further, we could likely avoid some of the ongoing legal and regulatory disputes over operations at commercial nuclear facilities. Any regulatory change of this magnitude would have to be harmonized with appropriate NRC licensing jurisdiction over facilities and waste and harmonized with EPA’s existing jurisdiction with respect to radiation standards: but such a process is certainly within the capacity of the current federal agencies and engaged stakeholders. Some states would assume regulatory jurisdiction over radioactive material, others might not. But in any event, substantially improved clarity in the regulatory structure and a meaningful state oversight role would allow, for the first time in this country, consent-based and transparent decisions to take place on the matter of developing storage sites and geologic repositories.

Section 304(f) is a detailed attempt to remedy regulatory deficiencies that could be more simply and effectively handled by ending exemptions under the AEA. Removing the ability of the United States to unilaterally break the terms of the contract could potentially give a state some measure of comfort that the agreement it had painstakingly negotiated over “undue burdens” or conflicting compliance agreements will hold fast. But there would be nothing stopping Congress from revisiting this law, ratifying the consent agreements with conditions, and thereby removing whatever meaningful restraint a state might assert. Thus, ultimately what is offered as a thoughtful contract provision could be rendered inoperable, and could eviscerate a state’s protection against altered, less favorable terms.

By contrast, ending the anachronistic AEA exemptions solves the matter of meaningful state oversight and does not carry with it substantial likelihood of congressional terms and modifications exacted from 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 re-insert exemptions from environmental law, it would have to do so in a manner that would remove overdue jurisdictional authority from all states (or Congress would have to single out one state for special treatment).
The difficulty of prevailing over the interest of all 50 states rather than simply amending legislation that affects the interests of just one state should be apparent.

**NRDC’s Concluding Thoughts on Question 1 from the Senators**

Interim storage configurations that provide clear incentives for reprocessing and fast reactors guarantees strong objection from NRDC. And leaving assessments of “undue burdens” or reconciling conflicting cleanup and compliance obligations to the Administrator illustrates our contention that the ultimate decision making power still resides with the federal entity, thus running afoul of the dangers BRC warned about by failing to allow States meaningful oversight roles.

And further, relying on Section 304 of Nuclear Waste Discussion Draft to provide the meaningful oversight role States seek is another recipe for gridlock as there is nothing in the law stopping Congress from revisiting any negotiated agreement, ratifying the consent agreements with conditions, and thereby removing whatever meaningful restraint a state might assert. The Energy Department’s current effort to reclassify HLW and ship that waste to the WIPP Project in New Mexico illustrates just how an agency can and will take such liberties. See Attachment 2, NRDC, SRIC and HC Marc 27, 2013 letter to Energy Secretary Chu, Re: Proposal to Ship Hanford High-Level Radioactive Waste to New Mexico.

In contrast to the difficulties in structuring state and federal roles noted above, ending the anachronistic AEA exemptions solves the matter of meaningful state oversight once and for all. It is past time for Congress to end anachronistic AEA exemptions from environmental law and this is the legislation where it should finally be done.

2. **Should the bill establish a linkage between progress on development of a repository and progress on development of a storage facility? If so, is the linkage proposed in section 306 of the bill appropriate, too strong, or too loose? If a linkage is needed, should it be determined as part of the negotiations between the state and federal governments and included in the consent agreement rather than in the bill?**

**NRDC Response:**

NRDC asserts that the bill should establish a linkage between progress on development of a repository and progress on development of a storage facility, and that the linkage proposed in section 306 of the bill is too loose. The needed linkage should not be determined as part of the negotiations between the state and federal governments and included in the consent agreement. Linkage between storage and disposal should be required and in the legislation.

Appropriating the term from the question, the linkage between storage and disposal provided in Section 306 is indeed far too loose. NRDC believes the linkage originally suggested in our fall 2012 testimony on S.3469 and here today in response to Question 1 provides a workable plan, allowing for both a meaningful pilot project on interim storage that does not undercut what the BRC made perfectly clear is the solution for nuclear waste.
Unfortunately, this iteration of Section 306 severs the strong linkage:

Notwithstanding subsection (a), the Administrator may site, construct, and operate storage facilities in the absence of parallel progress on the siting, construction, or operation of a repository if the Administrator is making substantial progress towards siting, constructing, and operating a repository, as measured by the mission plan.

Section 306(b). Unfortunately, measurement by the “mission plan” does not provide a meaningful linkage between storage and disposal. In brief, the “Mission plan” is the report required under section 504, presented to Congress, the Oversight Board, the NRC, the Nuclear Waste Technical Review Board and then released for public comment. All this is to be done in short order. The proposed mission plan is due not later than 1 year after the date of enactment of the Nuclear Waste Discussion Draft. There is no specific date for final issuance, and there is provision for revision to reflect major changes in the planned activities, schedules, milestones, and cost estimates reported in the mission plan.

The pertinent dates of the mission plan are found in subsection (b), where the Administrator is to set out schedules for operation of a pilot facility not later than December 31, 2021; a storage facility for “nonpriority” waste not later than December 31, 2025; and a repository not later than December 31, 2048, likely more than three decades distant from the passage of any iteration of the Nuclear Waste Discussion Draft. Any analysis of “meaningful” progress on the repository during the first few years subsequent to the Act is meaningless when weighed against a scale of more than 3 decades. The likelihood of halting movement of nuclear waste – expedient for the industry – is unlikely in the extreme. Further, the allowance for revision of the mission plan can be used to simply shunt aside observations about problems in repository development or rapid development of the interim storage sites.

The certification process and suspension proceedings in subsections (c) and (d) could prove to be politically fraught, but ultimately meaningless in light of the time frames. The oversight board, comprised of the Deputy Director of the Office of Management and Budget, the Chief of Engineers of the Army Corps of Engineers and the Deputy Secretary of Energy, with the President designating one chair, is unlikely to brook any suggestion that any lack of progress on something decades away should halt an expedient activity for some of the largest corporations in the United States.

Rather than the hard cap on volume present in S. 3469 or, as NRDC suggests, an interim storage pilot project at an operating commercial site limited to the stranded fuel, the Nuclear Waste Discussion Draft sets out a functionally meaningless process that requires the Administrator to move quickly with consolidated interim storage and posit (likely rosy) scenarios about repository development decades away.
3. Should the bill establish separate storage and disposal programs with clearly defined requirements for each, with any linkage negotiated in the consent agreement between the federal and non-federal parties, to allow the two program to run on separate, but parallel tracks, as proposed in the alternative section 305 (which would replace section 304(b)-(g) of the draft bill)?

**NRDC Response:**
No.

The proposed alternative section 305 does away the residual linkage left by Section 306 of the Nuclear Waste Discussion Draft. First, alternative section 305 hypercharges the consolidated interim storage process by requiring the Administrator to issue a request for proposals for cooperative agreements for a pilot program for storing priority waste within 180 days. Second, the alternative section does away with the Nuclear Waste Discussion Draft’s fig leaf *Suspension For Lack Of Substantial Progress*, severing even the barest link that remained, leaving the repository program and storage program on two entirely separate tracks. The priority and preference in site selection for sites suitable for co-location of a storage facility and a repository are cold comfort. Preference and priority for co-location are not presented as binding factors, and even if they were, such preference presents a host of problems that could lead to the consolidated storage site morphing into the de facto repository, regardless of the progress in the repository program.

Alternative section 305 fails to heed Chairman Bingaman’s caution that whatever case made for interim storage can be done “only as an integral part of the repository program and not as an alternative to, or de facto substitute for, permanent disposal.” Such a provision, if enacted into law, is inconsistent with decades of national policy and the purpose of the Nuclear Waste Policy Act (NWPA), 42 U.S.C. § 10131(b)(1).

4. To what extent should the siting and consensus approval process for spent fuel storage facilities differ from that for the repository? Should the Administrator be required to conduct sufficient site-specific research (referred to as “characterization” in the bill) on candidate storage sites to determine if they are suitable for storing nuclear waste or only on candidate repository sites to determine if they are suitable for geologic disposal of nuclear waste? Should the Administrator be required to hold public hearings both before and after site characterization (as required by current law in the case of the Yucca Mountain site) or only before site characterization?

**NRDC Response:**
The siting and consensus approval for storage and repository facilities should be strongly consistent, if not precisely the same. NRDC has five recommendations for ensuring the success of any legislative outcomes— (1) recognize that repositories must remain the focus of any legislative effort; (2) create a coherent legal framework before commencing any geologic repository or interim storage site development process; (3) arrive at a consent-based approach for
nuclear waste storage and disposal via a fundamental change in law; (4) address storage in a phased approach consistent with the careful architecture of S. 3469, not what is currently under review in the Nuclear Waste Discussion Draft; and (5) exclude polarizing closed fuel cycle and reprocessing options from this effort to implement the interim storage and ultimate disposal missions. We discussed these five recommendations in our testimony last fall on S. 3469 and will not repeat them here.

It should suffice to say that ensuring a coherent legal framework is crucial to avoid repeating the failure of the proposed Yucca Mountain process. We urged the BRC and we urge the Senators collectively now to be explicit and state clearly in legislation that both the standards for site screening and development criteria be in final form before any sites are considered. We also urge that generic radiation and environmental protection standards be established prior to consideration of any sites. S. 3469 went much of the way toward structuring such a result, but we have some specific concerns with that iteration and have even more concerns with the Nuclear Waste Discussion Draft and Alexander-Feinstein alternative.

4.b. Should the Administrator be required to conduct sufficient site-specific research (referred to as “characterization” in the bill) on candidate storage sites to determine if they are suitable for storing nuclear waste or only on candidate repository sites to determine if they are suitable for geologic disposal of nuclear waste?

Not necessarily – as we noted, a pilot project to address the current total stranded spent fuel at the eleven closed reactor sites, accommodated in a hardened building at one or more sites that follows the example of the Ahaus facility in Germany. Potential volunteer sites already demonstrating “consent” are operating commercial reactors. The utility of using existing commercial operating reactor sites rather than burdening new areas with spent nuclear fuel should be apparent. Far less in the way of new infrastructure is required and the capacity for fuel management and transportation is already in place, along with consent necessary for hosting nuclear facilities in the first instance. And by keeping consolidated, interim-stored spent nuclear fuel under the guardianship of the nuclear industry that produced the waste in the first instance, Congress ensures that careful progress will continue with the necessary repository program.

4.c. Should the Administrator be required to hold public hearings both before and after site characterization (as required by current law in the case of the Yucca Mountain site) or only before site characterization?

Yes, the Administrator should be required to hold public hearings both before and after site characterization. The engagement of the public should be seen as a long running and iterative partnership process for the development of a repository program based on sound science and consensus acceptance. Ending the public hearing process after site characterization is a recipe similar to the mistakes of the past.

After more than 55 years of failure, policy makers must look with clear eyes at the history of U.S. nuclear waste policy, an exercise that President Obama’s Blue Ribbon Commission only
partially accomplished. The BRC recommended geologic repositories and the Nuclear Waste Discussion Draft suggests a new path to arrive at them. But we emphasize today that the record created by this process should fully reflect the story of how the EPA, the DOE, the NRC, the Justice Department, and the U.S. House and Senate together corrupted the process for developing and implementing licensing criteria for the Yucca Mountain repository. Public engagement was not the source of Yucca Mountain’s demise. Failure to understand that history will doom any new effort.

While the BRC recognized that the 1987 amendments to the NWPA were “highly prescriptive” and “widely viewed as being driven too heavily by political considerations,” those observations are insufficiently critical assessments of what actually occurred. We recommend Congress be clear about what happened to avoid repeating the mistakes of the past. Put bluntly, first DOE and then Congress corrupted the site selection process leading to Yucca Mountain as the only option. The original NWPA strategy contemplated DOE first choosing the best out of four or five geologic media, then selecting a best candidate site in each media alternative. Next, DOE was to narrow the choices to the best three alternatives, finally picking a preferred site for the first of two repositories. A similar process was to be used for a second repository. Such a process, if it had been allowed to fairly play out, would have been consistent with elements of the adaptive, phased, and science-based process to which the BRC referred.

But instead, what happened was that DOE first selected sites that it had pre-determined. Then in May of 1986 DOE announced that it was abandoning a search for a second repository, and narrowed the candidate sites from nine to three, leaving in the mix the Hanford Reservation in Washington (in basalt medium), Deaf Smith County, Texas (in bedded salt medium) and Yucca Mountain in Nevada (in unsaturated volcanic tuff medium). Next, all equity in the site selection process was abandoned in 1987, when Congress, confronted with cost of characterizing three sites and strong opposition to the DOE program, amended the NWPA of 1982 to direct DOE to abandon the two-repository strategy and to develop only the Yucca Mountain site. Not by coincidence, at the time, Yucca Mountain was DOE’s preferred site, as well as being the politically expedient choice for Congress. The abandonment of the NWPA site selection process jettisoned any pretense of a science-based approach, led directly to the loss of support from the State of Nevada, diminished Congressional support (except to ensure that the proposed Yucca site remained the sole site), and eviscerated public support for the Yucca Mountain project.

Briefly, with respect to Title II and the creation of a Nuclear Waste Administration, as NRDC has expressed numerous times over past years, the failures of the AEC and its successor agencies (ERDA, DOE and the NRC) make the case that an alternative institutional vehicle for nuclear waste disposal is necessary. However, we note that any such new federal entity must be subject to all of the nation’s environmental laws, including the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321, et seq. We presume such is the case for this proposed agency. Alternative language may be necessary to clarify specific application of NEPA at certain junctures of the siting process (for example, in support of the initial guidelines), but it is clear to us that NEPA has full application to the newly proposed Nuclear Waste Administration.
Additionally, it has long been NRDC’s view that independent oversight is critical to safe and environmentally sound operation of DOE nuclear weapons production facilities and commercial nuclear facilities regulated by the NRC. Indeed, the full suite of environmental laws should have full application. We addressed this issue in more detail when discussing Section 304, infra at __.

5. Should the siting process in section 304 of the draft bill be streamlined? If so, how?

**NRDC Response:**

No.

Efforts to “streamline” or “reduce regulatory obligations” are in significant measure how the Yucca project was derailed. Rather than trying to anticipate an imaginary parade of onerous regulatory obligations that lengthen this decades long dispute over nuclear waste disposal, NRDC urges careful attention to creating a coherent legal framework before commencing any geologic repository or interim storage site development process. Then (and only then) arriving at a consent-based approach for nuclear waste storage and disposal consistent with our history of federalism. See pages 4–7 infra.

As we noted last fall, while several components of section 304 have merit – as it provides language responsive to the BRC’s recommendation that any successful approach must be “consent based” and allow affected States and communities to retain control – the proposed legislation falls short of the mark in developing solutions and needs no streamlining.

**Section 304(a)**

Turning to specific subsections and how they might be reformed, section 304(a) sets out the general terms of a process that reflects the transparent, adaptive, consent based qualities called for by the BRC. Allowing affected communities to decide, and on what terms, they will host a nuclear waste facility is an important step forward that has not heretofore existed in nuclear legislation.

**Section 304 (b)**

Next, section 304(b) wisely provides for consistency with section 112(a) of the NWPA but requires issuance of guidelines not later than one year after the date of enactment of this Act. We think one year an inadequate time frame. We support such consistency with the enumerated provisions in section 112(a) and agree that additional attention is important to detailed considerations such as minimizing impacts of transportation and handling and to not unduly burden states storing significant volumes of defense or transuranic wastes is important. But it is our strong recommendation that more time should be provided for the agency to get up and running before final guidelines become statutory time restrictions. Indeed, such guidelines must comply with NEPA, and ensuring those guidelines are in place prior to consideration of any storage or disposal site could go a long way in avoiding the mistakes of the past.
**Section 304(c)**

Section 304(c) sets up a process for determining candidate sites that, in general terms, could chart a process arriving at protective disposal solution, if it is: (1) undertaken subsequent to imposition of sound final site screening and development criteria and sound final generic radiation and environmental protection standards; and (2) not hamstrung or corrupted by Congress, other federal agencies or the Executive Branch. However, the Environmental Assessment required in section 304(c)(4) should explicitly be termed an Environmental Impact Statement to ensure there is no confusion regarding NEPA obligations.

As a final comment on section 304(c)(4)(A), we think any legislative record associated with the Nuclear Waste Discussion draft, should such a thing come to pass, must make it clear that there is no transference of the NRC’s “waste confidence” obligation to the Administrator. By its terms, the “confidence” sought in section 304(c)(4)(A) is whether the environmental assessment provides the Administrator with a reasonable basis to be confident that “the proposed nuclear waste facility at the proposed site” will be safe. The “confidence” at stake in the NRC’s waste confidence decision is “whether there is reasonable assurance that an off-site storage solution will be available by ... the expiration of the plant’s operating licenses, and if not, whether there is reasonable assurance that the fuel can be stored safely at the sites beyond those dates.”

*Minnesota v. NRC*, 602 F.2d 412, 418 (D.C. Cir. 1979); see also, *New York, et al. v. NRC*, 681 F.3d 471 (D.C. Cir. 2012). The confidence required of the NRC is nuclear waste generated at a reactor can be safely stored somewhere and stems from the NRC’s NEPA and Atomic Energy Act obligations. The confidence required of the Administrator under section 304(c)(4)(A) relates to a specific candidate site and stems from the Administrator’s obligation under this legislation to select sites that have a reasonable prospect of proving suitable.

6. **Should the new entity be governed by a single administrator or by a board of directors?**
   (a) If by a single administrator, should the administrator serve for a fixed term? If so, how long should the term of service be? Should the legislation prescribe qualifications for the administrator? If so, what should be the selection criteria?

**NRDC Response:**

NRDC advises that the new entity be governed by a board of directors. We think that the lengthier processes associated with arriving at consensus decisions – as compared to the decision making capacity of a single administrator – can be painful but are worthwhile. It is NRDC’s view that the success of any legislative outcomes will depend on a consensus process that includes– (1) recognize that repositories must remain the focus of any legislative effort; (2) create a coherent legal framework before commencing any geologic repository or interim storage site development process; (3) arrive at a consent-based approach for nuclear waste storage and disposal via a fundamental change in law; (4) address storage in a phased approach consistent with, as one example, the careful architecture of S. 3469 and our associated clarifications and suggestions; and (5) exclude polarizing closed fuel cycle and reprocessing options from this effort to implement the interim storage and ultimate disposal missions. A single administrator could upset the entire disposal architecture in one term, but a diverse board of directors is less
likely to do so in short order. The BRC is a good example where diverse viewpoints (and not nearly as diverse as we suggested or think was necessary) can and could produce some useful results.

(b) If by a board of directors, how many people should comprise the board and how should they be selected?

**NRDC Response:**
As an initial suggestion we suggest somewhere between 5 to 9 members directing the operations of a CEO. Representation should be balanced by party representation, government (federal, state, tribal), non-governmental organizations, and industry. The legislation establishing the board of directors should have an explicit requirement that the majority on the board not be composed of members with existing or historical ties to the nuclear industry. Such a requirement should also be attentive to the revolving door that has existed between government service at NRC, DOE and the nuclear industry.

7. The Blue Ribbon Commission recommended establishment of both a board of directors for management oversight (whose “primary role ... is not to represent all stakeholder views, but rather to carry out fiduciary responsibilities for management oversight”) and “a larger and more widely representative stakeholder advisory committee.” The draft bill responds to these recommendations, first, by establishing a Nuclear Waste Oversight Board of senior federal officials and, second, by authorizing the Administrator to establish advisory committees. Should the Oversight Board and advisory committee be combined into a single body to perform both management oversight and stakeholder representation functions? Should the focus and membership of any advisory committees be established in the legislation or left to the Administrator?

**NRDC Response:**
As we described briefly above, we believe direct control and oversight of the program could and should exist in a board of directors and a directly accountable Chief Executive Officer that carries out the duties, attendant to the specific direction of the Board. Ensuring that the board is not heavily composed of members with existing or historical ties to the nuclear industry would go far in ensuring improved public trust and acceptance of a nuclear waste storage and disposal program.

8. Dr. Meserve testified in 2012 that representatives of stakeholders and public utility commissioners should be added to the Nuclear Waste Oversight Board. Would these additions make the Board better able to carry out its fiduciary oversight mission effectively?
NRDC Response:

Yes. Outside “oversight” could only improve what has for too long been a closed and insular process.

For additional information or questions regarding these responses, please do not hesitate to contact us.

Sincerely,

Geoffrey H. Fettus
Senior Attorney
Natural Resources Defense Council
1152 15th St., NW #300
Washington, D.C. 20005
(202) 289-6868
gfettus@nrdc.org