

Summary of 2017 Public Comments on the *Draft Consent-Based Siting Process for Consolidated Storage and Disposal Facilities for Spent Nuclear Fuel and High-Level Radioactive Waste*

OVERVIEW

This document summarizes comments received on the U.S. Department of Energy's (DOE) [Draft Consent-Based Siting Process for Consolidated Storage and Disposal Facilities for Spent Nuclear Fuel and High-Level Radioactive Waste](#) (referred to throughout this document as the *Draft Consent-Based Siting Process*). DOE published a request for public comment on the *Draft Consent-Based Siting Process* in the [Federal Register on January 13, 2017 \(82 FR 4333\)](#). This summary document provides an overview of the public comments without analysis, response, or opinion from DOE as to the accuracy or validity of the comments. Nothing in this document should be construed to represent the position or view of DOE.

DOE received 45 pieces of correspondence in response to the request for public comment. Of these, 30 were unique pieces of correspondence, 10 items were duplicates, and 5 contained no comments.

The comments included in the 30 unique pieces of correspondence were organized by theme area and are summarized below.

GENERAL PROCESS COMMENTS

Support for Consent-Based Siting Process

Some commenters were generally supportive of the consent-based siting process. The following are examples.

- Some commenters supported consent-based siting because they felt that it followed [recommendations outlined in the report by the Blue Ribbon Commission on America's Nuclear Future](#) (BRC).
- One commenter noted that, if done correctly, a consent-based siting process could lay the foundation for a fair and just process for siting, which could position the federal government to meet its obligations after decades of failure.
- One commenter supported that the *Draft Consent-Based Siting Process* was intended as a guideline rather than a rigid set of prescribed instructions.

Distrust of DOE Based on Past Engagements

Some commenters expressed concerns regarding the nature or quality of previous DOE engagement efforts related to radioactive waste management. These commenters provided examples of situations where they felt that DOE either did not communicate effectively or failed to communicate or engage with potentially affected communities. Several examples follow.

- Some commenters expressed concerns about DOE's series of public meetings held in 2016 on designing a consent-based siting process, as well as DOE's Deep Borehole Field Test, a project that was later canceled. With regard to DOE's Deep Borehole Field Test, some commenters indicated that DOE performed poorly in interacting with local communities to obtain permission to perform experiments and that the DOE contracting process lacked transparency by preventing access to information in a timely manner.

- Some commenters noted a history of failed DOE commitments and missteps, which caused members of the public to distrust that DOE could lead a consent-based siting process.
- Some commenters expressed general opposition to, or suspicion of, the consent-based siting process. One commenter suggested that the process was intended to distract from perceived decisions that had already been made. Another commenter provided a quote from a former DOE representative that the commenter believed to be an indicator that DOE's efforts to write regulatory guidelines for siting a repository were political and aimed at finding reasons to keep facilities out of certain States.
- One commenter expressed the view that the consent-based siting process reflected optimistic speculation that an interim storage facility would relieve DOE of pressure to take possession of spent nuclear fuel at utility sites, but ignored the fact that DOE has been in default of its contracts with utilities to take possession of spent nuclear fuel. Similarly, another commenter expressed concern that the waste at the San Onofre Generating Station had not yet been removed.

The Need for New Legislation, a National Strategy, and/or a New Oversight Authority

Some commenters felt DOE did not have clear Congressional authorization to move forward with a consent-based approach to siting and that the consent-based siting process was incompatible with existing law (the Nuclear Waste Policy Act [NWPA]). Examples follow.

- Some commenters expressed the view that Congress needed to: (1) change House Joint Resolution 87 (Public Law 107-200) which designates Yucca Mountain as a repository site; (2) update the NWPA to shift from a repository to storage; (3) address the issue of State veto rights; and (4) update the NWPA to allow for the Nuclear Waste Fund to be utilized for storage.
- Some commenters felt the principles and steps outlined in the *Draft Consent-Based Siting Process* were not sufficient and suggested the government develop a coherent national strategy for spent nuclear fuel and high-level radioactive waste management before any work toward siting a facility begins.
- One commenter expressed the view that a necessary pre-condition to siting a facility should include development of a sequence of discrete tasks and that the consent-based siting process itself may be considered one process within the national strategy or sequence of tasks.
- Many commenters felt a new siting authority or implementing organization was needed to alleviate trust issues and suggested that this authority or organization could consist of an independent commission, a new federal entity, or a non-federal or public-private partnership.

Models and Experience for DOE to Consider

Some commenters pointed to national and international examples for DOE to follow in developing and implementing a consent-based siting process.

- One commenter suggested that the 1992 Federal Facility Compliance Act serve as a template for the technical and equity aspects of consent-based siting.

- Some commenters pointed to the International Atomic Energy Agency’s (IAEA) safety case as a valuable example.
- One commenter suggested DOE look to the Waste Isolation Pilot Plant (WIPP) in New Mexico for an example of defined, ongoing State oversight and participation.
- Some comments identified the outreach efforts of organizations such as Holtec, Waste Control Specialists (WCS), and Canada’s Nuclear Waste Management Organization’s (NWMO) Adaptive Phased Approach as examples of community participation.
- Another commenter suggested that the Carter Administration’s consent-based approach to siting radioactive waste facilities could be used as template.
- Some commenters cautioned DOE that the international examples cited by the BRC were not necessarily useful to the consent-based siting process because the political context in the United States, such as the rights of States, is unique.
- Another commenter felt that siting and licensing WIPP should not be understood as a consent-based approach, as was suggested in the *Draft Consent-Based Siting Process*.

COMMENTS ON THE CONSENT-BASED SITING DESIGN PRINCIPLES

Several commenters provided general feedback regarding the design principles presented in the *Draft Consent-Based Siting Process*.

- Some commenters supported the design principles, but many others described shortcomings, including the need for: (1) additional background information; (2) legislation to provide a statutory basis for many of the principles; (3) changes to limits to State veto rights in the NHPA; (4) clearer definitions of “community” and “potentially affected community”; (5) discussion of how the design principles apply to other potentially affected parties (e.g., origin sites and corridor communities); (6) a description of the roles and responsibilities of affected parties; (7) a description of how DOE will ensure adherence to the principles; and (8) a stronger emphasis on safety and the role of the U.S Nuclear Regulatory Commission (NRC).
- One commenter expressed concern that the design principles focused too heavily on an environmental impact statement (EIS) approach instead of a safety approach, as required by the NRC. This commenter suggested that an early determination of safety should be conducted using a valid surrogate evaluation method that could demonstrate the site will be able to meet NRC licensing requirements and suggested that all work must be performed according to an NRC-accepted Quality Assurance Plan.

COMMENTS ON SITING CONSIDERATIONS

General Process and Timeline

Some commenters provided general feedback regarding the proposed consent-based siting process.

- One commenter felt the 17 steps were useful guidelines to be followed but should be situated within an overall national strategy and were therefore limited in what they could reasonably accomplish.
- One commenter expressed the view that without advanced knowledge of the applicable regulations, they could not fully assess the consent-based siting process.

- One commenter felt that, in order to move forward, new interim storage or repository siting regulations would be needed and that the timing of the development of legislation and regulations was critical to the success of the program. This commenter also felt it was imperative to develop legislation, standards and regulations, and siting criteria sequentially and that these provisions would need to be in place before a community could give informed consent to host a facility.
- Multiple commenters supported the rapid development of interim storage. However, some commenters expressed concerns regarding the timeline presented in the *Draft Consent-Based Siting Process*. Some suggested it was not realistic, provided updated timeline estimates, or emphasized the need for DOE to act expeditiously to site a storage facility that can receive waste from decommissioning reactors.
- One commenter felt that the rough schedule estimates and lack of projected costs in the timeline did not provide confidence that DOE could meet its commitments. This commenter suggested that the *Draft Consent-Based Siting Process* should compare the projected timeline to timelines for other strategies (e.g., moving forward with Yucca Mountain).
- One commenter felt that if tangible progress cannot be made toward siting a facility then funds should be made available to communities who have become de facto hosts for interim storage at decommissioned reactors.

Consent

Many commenters provided feedback or requested further information on the nature of consent and who could or should provide consent for siting a facility.

- One commenter recommended that DOE work with local governments to identify and define the components of consent.
- Another commenter suggested that written consent be obtained from the host county, State, adjacent State(s), and affected Tribe(s) before any funds could be allocated from the Nuclear Waste Fund to begin construction of a repository.
- One commenter suggested including steps for resolving differences in instances where consensus cannot be reached.
- One commenter emphasized the importance of not applying a “one size fits all” approach to consent and noted that differences in communities would require a flexible siting/consent framework.
- One commenter urged DOE to apply the BRC’s 10 criteria for community consent.
- Some commenters suggested that a State must provide consent and one commenter wondered if a State-wide vote on hosting a facility would be feasible.
- Some commenters expressed the view that consent-based siting does not recognize that Congress explicitly and deliberately limited State veto rights in the NWPA and that Congress has not shown any predisposition toward reversing its stance on the issue.
- Some commenters felt the off-ramps described in the *Draft Consent-Based Siting Process* provided important assurances to communities that they would have the opportunity to withdraw from the process. However, one commenter requested more information about the off-ramps and wondered at what point withdrawing consent was no longer an option.

- Some commenters requested clarification on when "non-consent" is recognized, and one commenter asked if a community could preemptively remove itself (opt out) from potential consideration.

Stakeholder Engagement

Some commenters provided general feedback or recommendations regarding how DOE should engage with communities moving forward.

- Many commenters expressed the felt engagement activities should be transparent, begin early in the process, and involve direct and frequent two-way communication throughout the process between interested parties and the implementing agency.
- One commenter felt that a transparent and inclusive process would help build public trust and that a key component of this is providing financial and technical resources to interested communities so that they can fully and equitably participate in the process.
- Many commenters also provided suggestions for methods of communication and engagement (e.g., in-person events, videos, online forums, etc.).
- One commenter recommended providing a list of suitable geologic mediums and their locations to help inform public interest.
- One commenter felt that the opportunity for public participation provided by the NRC licensing process serves as an additional avenue for stakeholders to express their views.

Tribal Considerations

Some commenters raised concerns specific to the unique status of Tribes and provided feedback on elements of the consent-based siting process that could be updated to reflect Tribal concerns.

- Some commenters expressed their views on the need to engage in consultation with Tribes early in the consent-based siting process; obtain Tribal consent; demonstrate respect and adherence to Tribal laws and traditions; and protect treaty lands and lands owned by Tribal members.
- Some commenters noted that Tribes are sovereign nations with a unique government-to-government relationship with the U.S. government. Some expressed the view that Tribes should not be understood as a "stakeholder." These commenters explained that the federal government has a trust responsibility to Tribes that requires the federal government to respect Tribal self-governance and protect Tribal land, resources, and treaty rights, including off-reservation treaty rights, hunting and fishing rights, and access to historic, spiritual, or culturally significant sites.
- Some commenters stated that DOE is bound by fiduciary duty to Tribal nations and by federal law to engage early and often in the decision-making process with any Tribal communities that would be potentially affected by siting a nuclear waste disposal facility.
- Some commenters identified a number of Tribal engagement activities and considerations that should be explicitly included in the final consent-based siting process.
- Some commenters provided specific recommendations regarding siting considerations, including treating sacred sites and cultural areas as areas of special significance that could count as exclusionary factors for a potential host site.

Environmental Justice

Some commenters were concerned that consent-based siting would negatively affect environmental justice (EJ) communities, including EJ communities along transportation corridors, and expressed the view that EJ needed to be expanded upon in the siting criteria.

- One commenter felt that adverse economic and social impacts were potentially as important as health and safety issues and that special government effort, such as creation of advisory groups, would be needed to manage these impacts during siting and transportation. This commenter also recommended that social risk research be included.
- One commenter felt that potential economic benefits should be assessed for affected communities, with potential advisory groups identifying environmental equity efforts to assure activities such as training and workforce development were included in the selection process.
- One commenter addressed the intergenerational nature of a repository. This commenter also expressed the view that current statute and code may be insufficient and urged the creation of expanded EJ legislation or a dedicated EJ advisory team to work with and focus on outreach to local affected communities.
- Several commenters expressed concerns about the impacts to rural communities, particularly given the “proximity to major population centers” as an exclusionary siting factor. This commenter also questioned how the consent-based siting process takes into account shifts in future population distribution due to climate change impacts.

Regulatory Framework

Commenters offered feedback regarding the regulatory considerations and needs of a consent-based siting process.

- Some commenters recommended emphasizing that all work must be conducted in compliance with NRC standards, which are risk informed and performance based.
- A commenter recommended that DOE, NRC, and the Environmental Protection Agency (EPA) develop scientifically based health and environmental repository standards and model State laws and regulations to guide the siting process.
- One commenter discussed the applicability of 10 Code of Federal Regulations (CFR) Part 960 and 10 CFR Part 51 and existing NRC safety assessment criteria and regulations to siting considerations. The commenter suggested that DOE establish a simple yet defensible safety assessment early in the siting process to evaluate whether there is reason to pursue conversations with an interested party. The commenter also suggested establishing an agreed-upon basis for comparative evaluations in the event that there is more than one potential host site.

Funding Opportunities and Incentives

Several commenters provided feedback regarding possible funding and financing opportunities associated with the siting process.

- One commenter felt that funding availability should be explicitly outlined in each step and that a lack of this information might hamper a potential host's willingness and ability to continue in the process.
- Some commenters recommended that the federal government provide resources and funding for education, outreach, feasibility studies, research and development, and third-party scientists and engineers.
- One commenter recommended that all financial incentives be made clear and be fixed for all interested parties, particularly to avoid potential issues if a competitive situation arises.
- One commenter supported the use of funds from the Nuclear Waste Fund for any consent-based siting activities related to siting a storage or disposal facility, while another commenter cautioned that DOE had an obligation to utilities and stakeholders not to divert money from the Nuclear Waste Fund to programs not authorized under the NWPA.

Oversight Authorities

Several commenters posed questions or recommendations regarding who would provide oversight or retain authority over the siting, construction, and decommissioning of a facility.

- Some commenters felt that the oversight roles of the host State/Tribe/community should be more clearly defined. They recommended that those groups have strong decision-making and oversight roles, although one commenter suggested that Federal-, Tribal-, and State-elected leaders should not hold ultimate authority and advocated for empowerment of local communities.
- One commenter observed that States are a part of a potential host community and play important roles in facilitating issuance of permits and authorities necessary to execute detailed site characterization.

Facility Types and Design

Several commenters provided feedback or posed questions regarding the designs and/or purpose for the various storage and disposal facilities envisioned by DOE and pointed to facility restrictions detailed in existing legislation.

- One commenter suggested that clarification was needed regarding which steps of the *Draft Consent-Based Siting Process* apply to which types of facilities.
- Another commenter wondered why a "pilot" interim storage facility was needed because above-ground interim storage is not a new concept. This commenter recommended that a pilot interim storage facility be used for more innovative approaches to storage.
- One commenter questioned whether a pilot interim storage facility was a political strategy, given that interim storage is both well-known and scientifically accepted.
- Some commenters also questioned whether a pilot facility would accept waste from anywhere in the country or would only accept waste from shutdown reactors, how long it was intended to operate, and if it was intended for use with Generation IV reactors.
- Some commenters stated that, while they read the *Draft Consent-Based Siting Process* as suggesting that an interim storage facility and final repository may be co-located, the NWPA currently restricts co-location of these facilities to assure no one State is managing all the nation's waste.

- Another commenter expressed the view that the interim storage facility concept failed to consider or anticipate the need for an eventual repository waste package design and recommended basing repository designs on the package designs for interim storage.
- One commenter recommended DOE consider siting “two or more” storage facilities to generate competition and encourage technical advancement.

Site Assessment Considerations

Several commenters pointed DOE to siting considerations that were not discussed in the *Draft Consent-Based Siting Process*. These considerations included: (1) land acquisition and ownership; (2) mineral and water rights; (3) permission to conduct site assessments; (4) protection of land that is undergoing assessment; and (5) how risks to groundwater and air quality factor into site assessment considerations.

- One commenter pointed DOE to a 2012 Oak Ridge National Laboratory report that had addressed, on a national level, many of the site assessment considerations in Section 6.5 of the *Draft Consent-Based Siting Process*.

Transportation

Many commenters expressed concern regarding public outreach associated with transportation and suggested that DOE give greater attention to stakeholder concerns regarding transportation.

- Some commenters expressed concern with transportation risks and urged the consideration of transportation impacts as part of the siting process, noting that the consent-based siting process should adopt the transportation safety and security recommendations of the National Academy of Sciences and the BRC.
- Some commenters expressed concern about long lead times required to prepare emergency response capabilities and to develop shipping routes and schedules.
- One commenter provided the example of the WIPP transportation campaign as evidence of the significant lead time required for shipping campaigns.
- One commenter suggested that decommissioning sites and independent spent nuclear fuel storage installations in locations vulnerable to seismic or weather events should be first in the transportation schedule.
- Some commenters recommended that affected communities receive funding and technical support for ongoing training and emergency preparedness activities.
- A petition was submitted with 192 signers opposed to the transportation of liquid waste on interstate highways.

COMMENTS ON THE DRAFT CONSENT-BASED SITING PROCESS PHASES AND STEPS

Commenters provided specific feedback pertaining to the five phases and associated steps described in the *Draft Consent-Based Siting Process*. This feedback is summarized below.

Phase I Steps: Feedback regarding Phase I steps included the following: (1) define “potentially affected communities” and add non-consent as an exclusionary factor; (2) provide a preliminary list of incentives; (3) provide the level of funding available for early potentially interested parties and the eligibility criteria to receive it; (4) provide reimbursement to communities that incur expenses during Phase I activities; (5) expand funding opportunities to communities interested in learning more about consent-based siting

and radioactive waste management in general; and (6) specifically address transportation in Step 6 of Phase I activities.

Phase II Steps: Feedback regarding Phase II steps included the following: (1) reimburse communities for expenses incurred during Phase II; (2) provide for independent oversight of the waste management organization, as recommended by the BRC; (3) establish robust regulatory requirements (e.g., NRC regulations) and conduct a "safety assessment," with data collected by the community, organizations supporting the community, and the implementing agency; and (4) establish generic standards and regulatory requirements before beginning site characterization in order to compare sites, maintain scientific credibility, and build stakeholder trust.

Phase III Steps: Feedback regarding Phase III steps included suggestions that the list of laws with which an implementing organization must comply should not be limited to environmental laws and that an EIS should be required for any activity or process involving siting a nuclear waste facility. Feedback for Step 9 of Phase III included the following: (1) indicate that the implementing authority must comply with environmental laws; (2) include laws that protect Tribes and Tribal resources (e.g., the National Historic Preservation Act, Native American Graves Act and Repatriation Act, American Indian Religious Freedom Act, etc.); and (3) distinguish between "communities with a site" and "potentially affected communities."

Phase IV Steps: Feedback regarding Phase IV steps included the following: (1) define who would evaluate the terms of the agreements and who the "necessary parties" are that would approve the agreement; (2) introduce a generic consent agreement before Phase IV and potentially before initiating the process; and (3) provide an assurance that the agreement will withstand changing politics or administrations.

Phase V Steps: Feedback regarding Phase V included the view that additional information needed to be provided regarding how the federal government would provide long-term support or funding for host communities, even after a facility closes. Feedback for Step 16 of Phase V included the view that removal of the facility and any necessary remediation activities should be required. Feedback for Step 17 of Phase V included the view that the time period for which the site must be monitored by the implementing organization and community should be specified.

RESPONSES BY COMMENTERS TO THE QUESTIONS IN THE DRAFT CONSENT-BASED SITING PROCESS DOCUMENT

Several commenters provided direct responses to the seven questions that were asked at the end of the *Draft Consent-Based Siting Process*. The commenters' direct responses to these questions are summarized below.

Question 1 asked: "What specific design elements and implementation steps should be included to ensure that the siting process, as a whole, reflects the principles discussed in Section 4 and produces outcomes consistent with those principles?"

Responses suggested that the needed design elements should include: (1) transparency; (2) ample opportunity for stakeholders to participate and engage in the process; (3) meaningful and clearly defined roles for stakeholders; (4) shared authorities among Federal, State and local governments; (5) flexibility in the siting process and form of consent; (6) an emphasis on human health, environmental

safety, and resource protection; (7) sufficient financial support and access to resources for interested communities; and (8) inclusion of Native American traditional knowledge from Tribes within a several hundred mile radius of a potential site.

Question 2 asked: "What provisions are needed to assure potentially interested communities of adequate opportunities for information sharing, expert assistance, and meaningful participation?"

Most responses to Question 2 focused on activities that would provide ample opportunity for community members to express their views and to assure engagement. One commenter expressed the view that early and frequent engagement was more important than the specific type of engagement activity. Other commenters suggested the following ideas: (1) assign State-appointed technical and scientific experts to serve on independent advisory panels; (2) assure extra measures are taken to collaborate with community partners in EJ communities; (3) assure early and frequent stakeholder engagement; (4) work with governors and various State or regional entities; (5) hold formal and informal interactions, including public meetings or written comments and responses; (6) provide all necessary information; (7) explain how a facility fits into the national waste management strategy; (8) develop an online repository for information; (9) establish a document repository at a local library or government office; (10) provide e-mail notifications; and (11) include State, local, and Tribal governments in all engagement activities, as well as contiguous counties that may be affected by transportation.

Question 3 asked: "How can the process be improved to maximize opportunities for mutual learning and collaboration between potentially interested communities and the implementing organization?"

Responses suggested that mutual learning and collaboration could be maximized by: (1) developing tools to support direct, reciprocal engagement and meaningful participation early in the process (including for transportation corridor communities); (2) providing sufficient funding for communities to obtain their own experts; (3) consulting with interested parties to design effective communication models for their communities; (4) disseminating information through interactive websites; (5) providing outreach materials in multiple languages; (6) creating content that covers a spectrum of background knowledge and includes pros/cons of facility siting; (7) creating national education programs that discuss issues from all perspectives; and (8) integrating federal, Tribal, State, and local agencies, community members, and industry to design a coordinated system.

Question 4 asked: "How can the process ensure communities have adequate opportunity to demonstrate interest in continuing in or opting out of the siting process?"

Responses expressed the view that the process should: (1) expand the roles of the States, public, and other stakeholders; (2) not require stakeholder unanimity for consent; and (3) include early engagement with citizens' advisory boards that would be composed of State and local officials, community members, and affected stakeholders.

Question 5 asked: "How can the process ensure that regional concerns and interests, including the interests of neighboring Tribes and states and transboundary issues or impacts, are adequately addressed?"

Responses expressed the views that concerns and interests could be met by: (1) being transparent and inclusive; (2) engaging early and frequently with stakeholders; (3) forming Tribal working groups who could work in concert with DOE to improve the siting process; (4) looking to the example set by Canada's

NWMO; (5) coordinating with States, Tribes and affected parties along transportation routes early in route planning and preparations; (6) explicitly addressing current deficiencies in communication and coordination to assure safe transportation; (7) instilling confidence by working with affected parties to conduct a comprehensive program evaluation; and (8) providing States and stakeholders central roles in transportation planning and execution.

Question 6 asked: "How can the Department best engage with local, state, regional, and tribal entities in the review of this draft siting process?"

No direct responses to Question 6 were received.

Question 7 asked: "Are there other issues that should be considered in the siting process?"

Responses to Question 7 recommended that DOE avoid the following in the siting process: (1) loss of scientific credibility; (2) underestimating or ignoring transportation-related impacts; and (3) failing to achieve stakeholder confidence. One commenter expressed the view that success of a consent-based siting process will be defined by the initial efforts and perceptions, noting that perceived early failures or stumbles will serve to justify, amplify, and reinforce negative opinions of DOE and the process. This commenter emphasized that it is critical that the early stages of the process be founded in integrity and transparency so that consent-based siting is perceived as fair, balanced, and equitable.

OTHER COMMENTS

- Some commenters expressed opposition to nuclear waste storage in their communities.
- Some commenters expressed the belief that there are no safe radioactive waste disposal alternatives and that the United States should stop producing waste.
- One commenter suggested that DOE should focus its efforts on "reverse engineering" at power plants to "neutralize" radioactivity using a method developed by Dr. Radha Roy in the 1970s. This commenter also suggested that the residual radioactivity should be used to generate additional electricity that would reduce or eliminate radioactive waste.
- Other commenters provided historical and political context regarding the Yucca Mountain Program, State veto rights, the need for a defense only repository, and existing generic and site-specific regulations (10 CFR Part 960).