

## PURPOSE

On March 29, 2016, the Department of Energy's consent-based siting initiative hosted its first public meeting in Chicago, Illinois at the University of Chicago Gleacher Center. The purpose of this meeting was to hear from the public and stakeholders on important elements in the design of a consent-based siting process. A consent-based siting process will support the development of facilities needed to manage spent nuclear fuel and high-level radioactive waste, including consolidated interim storage facilities and permanent geologic repositories.

During the public meeting, participants engaged in facilitated small group discussions on a variety of topics related to consent-based siting and integrated waste management. These small group discussions provided the opportunity for frank and open conversations on key topics that will inform the design of a consent-based process.

Leadership Strategies (LSI), an Atlanta-based facilitation company is a subcontractor of Allegheny Science and Technology in support of the Department of Energy (DOE) consent-based siting public meetings and provided professional facilitation of the small group discussions. The small group discussions are part of a broader effort by DOE to listen and gather input, and the summaries below are not DOE positions on any given topic, but a summary of what was discussed by the meeting participants.

## SMALL GROUP DISCUSSION PROCESS

Leadership Strategies facilitators are impartial and objective third-party facilitators. Their role is to effectively facilitate a one-hour discussion with public meeting participants by:

- Establishing an open and candid conversational atmosphere to engage participants.
- Asking the primary question to initiate the conversation:
  - *“What is most important for DOE to consider in designing a consent-based siting process?”*
- Asking secondary questions to further engage, clarify and probe for the identification of consent-based siting process considerations important to the public:
  - *How can the Department of Energy ensure that the process for selecting a site is fair?*
  - *What models and experience should the Department of Energy use in designing the process?*
  - *Who should be involved in the process for selecting a site, and what is their role?*
  - *What information and resources do you think would facilitate your participation?*
  - *What else should be considered?*
- Responding effectively to ensure participants are heard and feel respected in the discussion.
- Recording participants' summary responses, concerns and questions or comments pertaining to the primary and secondary questions on both chart paper and detailed notes.
- Validating and prioritizing participants' input in preparation for small group discussion report out session.
- Leading small group discussion report out session.
- Writing session summary notes.

## **SMALL GROUP DISCUSSION PARTICIPANTS**

In Chicago, public participants self-selected small groups in which to participate. Discussion group composition was relatively diverse with representatives from state and local government, advocacy and community groups, and the nuclear industry. There were six to ten public participants in each small group discussion. In this first public session, not all session attendees chose to participate in small group discussions. Several participants joined the discussion in progress or left the group before the discussion ended.

In addition to public participants, select DOE staff listened to the small group discussions. The objective was to understand and appreciate public responses, concerns and questions or comments related to the consent-based siting process. Note takers were assigned to each small group and took hand written, detailed notes to supplement what LSI facilitators summarized on chart paper.

Responses, questions and comments or concerns were not attributed to individual participants.

## **CONSIDERATIONS AND THEMES**

Participants identified “considerations” in response to the primary and secondary questions. Responses were recorded and grouped with similar contributions in “themes.” Themes were identified by participants.

Participants’ responses were summarized during the small group discussions and, where possible, responses were recorded as stated. Facilitators also asked all participants to validate that the summary notes reflected the discussion and were inclusive of grouped themes at the end of the small group discussion.

Facilitators and small group note takers reviewed both summary comments recorded on chart paper and hand-written detailed notes to confirm that the notes were clear and complete. A few contributions listed below have been revised for clarity and readability.

At the end of the small group discussion, each small group reported out and identified the “most important” considerations that were identified in the discussion that the small group wanted to share with the larger group. The report out was led by an LSI facilitator to ensure adherence to scheduled time, but the most important considerations were identified by public participants.

“Most important” considerations and grouped themes are *underlined in italics* below.

### **Definition and Common Understanding of the Term “Informed Consent”**

- *It must be “informed” consent.*
- People who provide consent must understand what they need to know. Need to define what is consent and how to inform someone. People struggle to become educated and how they can be informed.
- DOE will need to narrow down what “consent” means.
- Consent requires full understanding of the risks (health risks, environmental risks, etc.).
- Is informed consent possible considering:
  - Generational equity?
  - Social equity?
  - Length and durability of contract?

Consent-Based Siting Public Meeting  
Small Group Discussion Summary  
March 29, 2016  
Chicago, Illinois

- Along with the concept of transparency is the need not just for consent, but informed consent. Having "willing hosts" is a start but just as important is having those willing hosts also be "informed hosts."
- What are we looking for consent for?
  - Shutting down sites?
  - Interim storage?
  - Long-term storage?
- DOE should *establish qualification criteria for consent*. Although a strong technical basis for siting is absolutely critical, criteria relating to social equity and social acceptance must be developed to ensure that benefits and costs are considered, to ensure that the storage/disposal facility is viable over the intergenerational time span.
  - The qualification criteria should also allow evaluation of any limitations that might be involved in selection of a particular site. For example, selecting a site solely because a host community may be in desperate financial straits.
  - The qualification criteria should also consider how grants would be distributed to community organizations for evaluation of whether to participate in the consent-based process. This would include technical assistance to allow communities and community organizations to understand the technical issues and to be able to rely and trust the technical decisions. This would be particularly important for what was termed "middle ground" people.
  - The criteria would also allow a potential host community to evaluate what factors it needs to consider in deciding whether to "volunteer," what restrictions they might place on a site, and what oversight role they would want.
- DOE should establish qualification criteria for consent. Technical issues might be resolved but there is still opposition and apathy.
- Basic Siting Criteria established to choose site.
- Develop screening criteria for potential sites.
  - Nuclear power plants, nuclear material processing plants, transportation facilities, nuclear waste storage, and other sites are inadequately defined, both geographically and environmentally. Since their establishment, and subsequent encroaching development, some current sites are now relatively close to roadways, industry, waterways, and recreation areas. The consent-based siting process should include an impact statement as to how the site could necessitate development or zoning restrictions to a wide area of land and water use.
  - What is the level of distress of the community, which may mandate their motivation for the economic benefits of consent-based siting, without regard for the long term debilitating effects? This should be taken into account.
  - The location being considered might be currently uninhabited, hence not defined as a community.
- DOE should include monitoring criteria, standards, and procedures that will be mandated in all sites, and its consent-based siting process.
  - Given that the sites will be maintained for perpetuity, a description of monitoring its condition, safety, enclosure, etc. of the site itself must be mandated. This should also include

Consent-Based Siting Public Meeting  
Small Group Discussion Summary  
March 29, 2016  
Chicago, Illinois

monitoring of regional environmental conditions, such as regional aquifers, downstream waterways, downwind air quality, etc. and population human, pet, flora and fauna health conditions.

- What current monitoring, both internal site and external environmental and health conditions, is conducted? Will these and improved monitoring be included in future sites? Who will conduct this monitoring? (Local, state, federal, industry?)
- Includes the community's independent assessment of the problem and the need for siting.
- Because there is a tremendous amount of science to understand, there is a need for community access to experts to inform them during the life-cycle of the consent-based siting process.
- How do you tell what is information and what is misinformation? Need some way to address this problem.
- Need consent from:
  - NOT JUST elected officials
  - Adjacent communities
  - Communities that share the water table
  - Transportation routes (those who transport waste)
  - Grass roots (everyone in the country)
  - Every single person should consent
- How do minority opinions get addressed?
- What does the region or area think about consent-based siting?
- Local and state government officials, local communities must be involved.
- Start with consent from Congress.
  - Need to get consent from Congress now
  - This process may not be what Congress had in mind
  - Congress approved and directed DOE to pursue Yucca Mountain
- What progress has been made in getting consent from Congress?
- Congress should start the process before the DOE process moves much further.
- Start with national campaign to inform everyone in the nation.
- Durability of consent
  - How long is "consent"?
  - Generational equity
  - Agreements are for very long period of time
  - There will be turnover of politicians, generations, citizens, town councils

### **Re-establishing, Establishing and Maintaining Trust**

- To capture the communities' trust the DOE must understand their needs, values and concerns.
- Have to capture community's trust keeping agreements you made in the past, but we also need to look forward, not always in the rearview mirror.
- It should be an equal playing field.
- A fresh start is needed; there is just too much "history" and perhaps a lack of trust with DOE.
- The DOE must gain, maintain, and expand the trust relationship they have with communities.

One example is the reference to the 17 nuclear research labs. Specifically, it is suggested that the labs ensure that the work and data they generate is easily accessible, subject to peer review, and the results published.

- A new organization to conduct the siting and management process is needed.
  - It will be more insulated from politics and could make the intergenerational decisions necessary for consent-based siting.
  - The new organization could be insulated from the Congressional appropriations process through access to the waste fund.
  - Providing the information, education, and expertise necessary for participation in consent-based processes by states, Tribes, and communities would be facilitated.
- Not just what you say, but how you say it.
- Don't talk down to people.
- Don't use the word "educate." That is talking down to people. Use "inform."

### **Creating and Maintaining Transparency**

- Transparency is really important. DOE does not know how to do it.
- In order for a site selection process to be 'consent based,' transparency must be a critical component.
- A new paradigm of public engagement and community participation should be used in the consent-based process. There are newer generations involved, new community organizations, such as environmental justice organizations, and new technologies, i.e., social media. There needs to be more direct "on the ground" engagement in communities by the managers and developers of consent-based processes, as well as the regulator, the Nuclear Regulatory Commission.
- Initiative that involves technology needs small steps and lots of opportunities to engage.
- Key points to inform public meetings with new attractive slides and posters. At today's meeting, Kotek gave a beautiful slide presentation. He is paid to be here and has paid staff to create the presentation. It should be an equal playing field where people on the panel have access to the same resources, time and funds.
- Two key components (and indicators) of developing a transparent process are:
  - Informing the public how to access this information
  - Providing DOE and/or independent experts who are available to communities to help interpret the information

Consent-Based Siting Public Meeting  
Small Group Discussion Summary  
March 29, 2016  
Chicago, Illinois

- Provide clear concise information in a way that considers all perspectives.
- Providing the information, education, and expertise necessary for participation in consent-based processes by states, Tribes, and communities.
- Problem is it's too hard for people to find out. People not willing to take time to find out what is going on. People are not going to learn all the details of a complex problem.
- DOE should ensure that the consent-based siting process includes full disclosure of the scope, scale, size, footprint, and nature of the problem.
  - Scope? Size? Footprint? Impact over the long term? Impact if it leaks (liquid) or is released (aerosol)? Impact to nearby highways, transportation corridors, waterways, residential areas, etc.? What is the full, underlying nature of the problem being addressed that requires a consent-based siting solution?
  - Storage, either temporary, long-term, or permanent disposal for eons, carries risks that may impact a much larger area than originally anticipated. Regardless of how or how long it is stored, if it leaks, could it impact the ground water, then the aqueduct, and then impact a macro-significantly larger region?
  - What are the local authorities, governmental jurisdictions, etc. impacted? For example, how will a local jurisdiction be empowered?
- Informing the community to avoid ignorance, the avoidance of hidden costs, the full disclosure of the risks and potential impact to surrounding regional environmental and health concerns, and long-term monitoring, DOE must ensure that the consent-based siting process is fully transparent and open to the public.
- What problem is the DOE trying to solve? Why is a consent-based siting process a good idea? How do we go about determining if our community is a good candidate?
- Need to clearly and concisely inform public about why consent-based siting is needed and consequence of not using consent-based siting.
- To understand the pros and cons and the short- and long-term consequences of consent.

### **Ensuring a Fair Process**

- The process must be fair and transparent and technical and financial resources must be provided. Although a strong technical basis is important, social equity issues must be included in the consent-based process.
- It is important for all of the communities of interest to be included in the consent-based process. Existing communities with waste stored on site should not be disenfranchised. Don't assume that the existing host community necessarily wants to have the waste removed.
- A "one size fits all" approach will not work as a basis for a consent-based siting process.
- There are various components involved: the site where the waste is located now, the transport of waste from those sites, and the new site that will accept the waste. The existing host community will be concerned with the timeliness of the consent-based decision-making.

### **Stability and Durability of the Consent-Based Siting Process**

- Stability of the process to go through all the process even if locals and regional government is aligned. How do we make this work?
- Robustness of the process that is tested, works, and is long-term in scope and maintain interests.
- Even if we assume everything is right and local and regional governments agree, how is stability of the process guaranteed over long timeframe?
- The film “Into Eternity” was offered as a portrayal on the time scales involved.
- DOE should continue to pursue its current effort on developing a consent-based siting process. It is too important an issue to postpone while Congressional action awaits on a new organization. In fact, pursuit of a consent-based process could motivate Congress to act. The Blue Ribbon Commission was “outside” of the political process and the DOE current effort on consent-based siting continues that model.
- Political changes impact siting. Need to make the plan stick, not just hope it will.
  - It is important to insulate the process from the normal election cycles and attempt to immunize the process from “politics” or “ideology.” The Blue Ribbon Commission was cited as an organization that was “outside” the normal political process. Others also believed that the DOE current effort on consent-based siting continues that “extra political” model.
- Making sure that local elected officials are involved from start to finish.
- What is plan to/strategy to make it stick after next election?
- A strong technical basis for consent is absolutely critical to ensure the viability of any facility over the intergenerational timeframes involved. A strong technical basis could ensure that the best site possible was selected that would outlive the election cycles of the political process.
- Process needs to be phased and adaptive. Deal with changes in political environment, technology and financial progress with milestones; management and financial support; a gated process.
- Use a “gated” process with milestones.
- What would be a “gate?” Deliverables?
- A consent-based siting process, including informing the public, the businesses, industry, etc. must take into account the very long term, permanent, in perpetuity nature of storage.
- Who will have responsibility for:
  - Honoring commitments?
  - Accidents?
  - Issues not part of the original agreement?
  - Who pays fines, levies fines, who receives fines?
- Responsibilities need to be defined as part of the process.
- Funding request for interested communities.
- Will this be a conversation about money?

Consent-Based Siting Public Meeting  
Small Group Discussion Summary  
March 29, 2016  
Chicago, Illinois

- DOE consent-based siting process should include full disclosure of all known capital and long term costs of the site, including any hidden costs, assurances for permanent financial support, and impact on the local, state, federal and investor community.
  - Notwithstanding that the community may receive job-related economic benefits of hosting a site, who pays for its capital development, and its long term maintenance? How will this be paid and/or financed? When will it be paid?
  - Example given: Who pays for the hidden costs, such as when plants are shuttered, and becomes an unplanned, temporary yet de facto long-term storage site?
  - How are the costs apportioned between local, state, and federal taxpayers, bond investors, industry jobs, government jobs, etc.?
  - How would the costs be handled, when the situation changes, such as a leak or release? Will this be handled much like the current EPA Superfund? Will assurances be put in place to ensure that federal financial obligations made during the consent-based siting process, be ignored decades in the future, which then forces local communities to bear the cost?

**Community Capacity, Involvement, and Awareness of the Consent-Based Siting Process and Citizens' Scientific Literacy**

- Community Capacity. How do we get the community to truly understand:
  - Advantages?
  - Risks?
  - What ifs?
  - Roles and responsibilities of corporations
  - Health risks
  - Environmental risks
  - Dangers of nuclear energy
  - Invisible dangers
  - Alternatives such as solar energy
- The local community, including citizens and authorities, may not have the level of awareness necessary to make informed decisions, concerning the array of planning considerations, long-term risks to the environment, hidden costs, etc.
  - Example given: The inclusion of genetically modified organisms (GMOs) have long been hidden in food, and is a hotly-debated issue, regarding the current lack of full-disclosure on food packaging and restaurants of GMO ingredients. Similar to how nicotine addiction and lung cancer risks were denied for decades by the tobacco industry, unknown risks are now being denied by the GMO industry. There should be full disclosure.
- Some communities are not always aware of the meetings. DOE has been inadequate in informing and promoting the meeting announcements.
  - Example given: Zion, Il was not fully informed that their shuttered plant would become a de-facto, long-term, temporary storage of nuclear waste



Consent-Based Siting Public Meeting  
Small Group Discussion Summary  
March 29, 2016  
Chicago, Illinois

- DOE should ensure that the community, as well as neighboring communities, be adequately informed, and invited all relevant meetings, as part of the consent-based siting process. DOE should fully disclose all issues and long-term risks. This will enable any community considering consent-based siting to make informed decisions.

**Models or Examples to Consider**

- Look to Fracking for examples of land use issues and consent.
- Models for local action exist, such as a referendum requirement. After community/Tribe informs itself and during negotiations, then enforceable agreement on both sides.
- Referendum requirement gives everyone in community the chance to vote. Example of model for local action to make the plan/strategy stick. Referendum informs the community.
- State of Illinois' SB-172 process: Illinois' Environmental Protection Act Process SB-172 is currently in use, and may be considered by DOE as an effective model for adaptation for consent-based siting process. It is used for engaging the public, community, businesses, etc. for general environmental impacts, and includes Environmental Impact Statements, informing the public, public comment periods, public meetings, site inspections, etc.

**WHAT ELSE?**

**Nuclear Power Generation, Interim and Long-Term Storage of Spent Fuel as Related to the Consent-Based Siting Process**

- Question the premise of centralized interim storage.
- Legitimacy of the process (need and motivation).
- Future of nuclear power providing U.S. energy needs in the long-term.
- If we did not make more nuclear waste, what do we do with nuclear waste we have now?
- It's annoying that the best, most educated people are spending time making more nuclear waste instead of solving the problem of nuclear waste.
- Political and corporate agendas push to continue nuclear power.
- Motivation (negative) for consent-based siting:
  - Tied to re-licensing of current or new plants
  - Premise is tied to waste confidence rule
  - DOE is responsible for promoting nuclear energy
- Transfer of liability from corporations (creators) to the federal government (public):
  - Driving this day, Blue Ribbon commission, etc.
  - How about reducing liability by one move to permanent repository (versus to interim and then to permanent)
- Site solicitation should be on the front end of the process. Understanding that the ultimate goal of the consent-based siting process is to select sites for the interim storage and the permanent disposal of

Consent-Based Siting Public Meeting  
Small Group Discussion Summary  
March 29, 2016  
Chicago, Illinois

nuclear waste, the DOE should begin this process by conducting an initial site solicitation request to communities.

- The DOE should provide a document that outlines the federal requirements for a potential interim storage and permanent disposal site(s) to include, but not limited to, the following items: science criteria (including geological data), peer reviews, expert opinions, irrevocable standards, and international experience.
- This could "jump start" the process by focusing consent-based siting efforts on communities that at least meet the "to be determined" minimum site hosting requirements. Then a more detailed site selection process could take place.
- Use existing facilities as interim storage.
  - Consider current storage facility as "interim" storage so waste is not moved until it goes to permanent disposal.
  - DOE should consider taking ownership of the sites where the material is now.
  - This approach denies communities where the spent fuel already exists the opportunity to fairly participate in a consent-based siting process.
  - As the Mayor of Zion noted during the panel discussion, the Zion community was asked to host a spent fuel storage facility but has been saddled with the fuel by default.
  - Consider investing in those communities.
- Permanent storage considerations:
  - Consent-based siting process doesn't work the same for each type of storage.
  - Can't just be "who wants it."
  - Need to start with the geology and other technical criteria.
  - Need to set general technical criteria for sites.
- There must be a plan for the recoverability of the waste if something unanticipated goes wrong

### **Transportation**

- Transportation of spent fuel is where the public and the nuclear fuel cycle intersect. Two participants said, "I live near a railroad and consider it to be a huge issue." Other questions were also asked: What does the "safe transport of nuclear waste" mean? Is there an accepted number of incidents/accidents that the public needs to know about?
- The minimum number of moves of nuclear waste product is best. Two suggestions were made:
  - Move it once to a permanent disposal (geologic) site.
  - Develop hardened on site storage (HOSS) to avoid any transportation variables. If, however, the waste must be moved, a federal standard on emergency response must be in place and communicated to local communities.

### **Past Efforts**

- Where was the education of mining communities? Nuclear Energy Information Service (NEIS) supported video that Navajo do not understand what this is. Need to train tribal community with

Consent-Based Siting Public Meeting  
Small Group Discussion Summary  
March 29, 2016  
Chicago, Illinois

Geiger counters. People don't know what radiation is. NEIS Radiation monitoring project – People need to know to where radiation is to shield themselves and how to avoid it