May 24, 2013

TO: Senate Energy and Natural Resources Committee

FROM: Katherine Fuchs, Program Director

RE: Discussion Draft of Nuclear Waste Administration Act of 2013

The Alliance for Nuclear Accountability (ANA) is a network of 34 organizations from across the United States working to address issues of nuclear weapons production and waste cleanup. For 25 years, ANA has brought together constituents from downwind and downstream of nuclear sites.

ANA appreciates that the four senators have provided the discussion draft so that ANA and other groups and individuals interested in and affected by high-level nuclear waste (HLW) and spent nuclear fuel (SNF) are able to comment before the Nuclear Waste Administration Act is introduced. Given the more than 30 years of failed nuclear waste policy, an open and inclusive legislative process is essential if comprehensive nuclear waste legislation is to be enacted and implemented. ANA and our member organizations will be actively involved.

1. ANA’s long-established principles regarding nuclear waste

ANA member organizations have ongoing, direct experience with HLW and SNF. Through its consensus decision-making process, ANA has developed long-established principles that guide our work. The nine principles discussed here are essential elements of a scientifically sound, publicly accepted nuclear waste program.

A. ANA supports interim storage of high-level waste and spent nuclear fuel as close to the point of generation as possible, as safely as possible. The Department of Energy (DOE) has approximately 90 million gallons of HLW; most is stored in more than 230 tanks at Hanford, Washington; Savannah River Site, South Carolina; and Idaho National Lab, Idaho. DOE also manages about 2,500 metric tons of SNF. About 70,000 metric tons of commercial SNF is primarily stored at the reactor sites; about 2,000 metric tons more commercial SNF is created each year. ANA supports improved storage for HLW liquids and sludges immediately and solidification of those wastes as soon as possible. ANA recognizes that HLW and SNF will continue to be stored at DOE sites for decades. ANA supports Hardened On-Site Storage (HOSS) for commercial SNF to reduce the amount and density of spent fuel in storage pools, increase the amount of SNF in dry storage, and improve the safeguards to reduce the impacts of natural or human events.
ANA supports “Principles for Safeguarding Nuclear Waste at Reactors,” which is attached.

B. **ANA opposes consolidated spent nuclear fuel storage facilities.** Consolidated SNF storage facilities are inconsistent with the first principle of safe storage that it be as close as possible to the generation site. Consolidated storage requires nuclear waste transportation, which is costly and endangers millions of people along shipping routes. Consolidated storage is not disposal, but it could become de facto disposal. Consolidated storage does not “solve” SNF storage at reactors, because operating reactors will continue to generate more waste. Consolidated storage likely would increase worker exposure at the power plant and would certainly increase worker exposures during transportation and at the consolidated storage site.

C. **ANA supports scientifically sound, publicly accepted environmental protection standards before any SNF disposal site selection activities begin.** The Environmental Protection Agency (EPA) should engage in a rulemaking process to establish new disposal standards. That process requires adequate funding from Congress. EPA standards should be in place before any siting work commences so that generic standards guide the site selection process. The Nuclear Regulatory Commission (NRC) should be required to establish HOSS standards by rulemaking for licensed reactors.

D. **ANA opposes Yucca Mountain, which is a technically flawed, politically chosen site.** As the State of Nevada, tribal, and non-governmental organizations have shown, Yucca Mountain has many technical flaws, including seismic and volcanic issues and rapid groundwater flow, which preclude the site from meeting adequate disposal standards. In 1987, Congress inappropriately selected Yucca Mountain as the sole repository site, a clearly political, not technical, decision.

E. **ANA supports independent state and federal regulation of SNF storage and disposal facilities.** Independent regulation is essential for technically sound nuclear waste facilities, confidence in the competence and oversight of their management, and to ensure effective public participation and accountability. Fifty years of little or no regulation of nuclear weapons facilities resulted in contamination of those sites that will take decades and hundreds of billions of dollars to address. Additional legislation is required to establish a robust regulatory regime, which must include elimination of the pre-emption of state and federal regulation of radionuclides.

F. **ANA supports an early and substantive role of tribes, states, and the public in decision making.** ANA’s experience with DOE sites demonstrates that the effects of nuclear activities extends far beyond the immediate area. In fact, the “affected public” is not just people in the “host” community, but includes people near other nuclear facilities and even other states.

G. **ANA opposes reprocessing.** Reprocessing for nuclear weapons accounts for much of the contamination at DOE sites, and the HLW from reprocessing remains an immediate and long-term health and environmental threat. Commercial reprocessing at West Valley, New York, also was an environmental and economic disaster that remains a burden. It is clear that fissile materials should not be separated from spent fuel. ANA is aware that consolidated SNF storage is seen by some as a way to
promote reprocessing. For example, the SRS Community Reuse Organization report of March 2013 endorsed a linkage between spent fuel storage and reprocessing.

H. **ANA opposes expanding the mission of the Waste Isolation Pilot Plant (WIPP) to include disposal of commercial waste or high-level waste.** Since 1979, federal law has limited WIPP to handling defense transuranic waste. It would do great damage to the credibility of laws and agreements covering any future nuclear waste storage or disposal site if the WIPP mission were changed. Moreover, WIPP is technically precluded from accepting such waste because of various deficiencies, including that it is surrounded by many oil and gas wells and that bedded salt is rapidly deformed by thermally hot waste.

I. **ANA supports limiting future nuclear waste generation, including a phased closure of commercial nuclear power plants.** As long as the amount of commercial SNF continues to increase, storage capacity must continue to expand in tandem, and the final amount of waste requiring disposal is unknown. Without knowing the scope of the problem, effective solutions cannot be fully implemented. ANA supports a sustainable energy policy that focuses on increased energy efficiency and clean renewable energy technologies.

### 2. Features of draft bill worthy of support

There are various provisions of the draft bill that are consistent with ANA’s principles and which we support, including in any comprehensive nuclear waste legislation.

A. **Terminate the past 30 years of DOE’s authority related to consolidated SNF storage and disposal.** The draft bill would require DOE to manage its HLW, but not give it authority over commercial SNF. DOE’s efforts to site consolidated storage and disposal sites have failed to result in any operating facilities and have instead engendered public distrust and opposition to the nuclear waste program. It should be clear that the existing laws and DOE’s implementation would continue to fail.

B. **Ensure that generators and owners of nuclear waste pay the full cost of storage and disposal and that funds collected are used for those purposes.** Just as federal taxpayers must pay the full cost of handling and disposing of HLW from nuclear weapons production, so too nuclear utility ratepayers should pay the costs for commercial SNF storage and disposal. Taxpayer and ratepayer funds should be used only for those purposes. This mandate includes the use of the Nuclear Waste Fund for HOSS facilities.

C. **Mandate disposal of high-level defense waste in a licensed repository.** Consistent with past and current federal law, all high-level defense waste should be disposed in licensed repositories.

D. **Require nuclear waste be transported in certified packages, with prior notification and technical and financial assistance to states and tribes.** Transportation of large amounts of commercial SNF has not occurred in this country, should not occur until there are one or more repository sites, and is appropriately perceived as threatening millions of people along shipping routes. Therefore, new shipping containers will be required, and they should all meet strict licensing requirements. All shipments should
be subject to prior notification to affected states and tribes, which should receive technical and financial assistance to ensure the safest transportation.

E. Provide for the settlement of litigation and establish new contracts prior to the federal government taking title to nuclear waste. DOE did not meet the unrealistic January 31, 1998, deadline established in the Nuclear Waste Policy Act to begin disposal of HLW and SNF. Similar dates should not be included in new legislation. As part of a new program, it is essential that litigation related to current contracts be settled so that federal taxpayers know what the prior costs are before any new program is initiated.

3. Features of draft bill ANA opposes

A. The legislation should not include consolidated SNF storage facilities. HOSS facilities should be required. The numerous provisions related to consolidated SNF storage should be eliminated from the bill. Efforts by both DOE and private entities to establish such facilities have failed. Such facilities are inappropriate for many reasons, not the least of which is that they would likely become de facto disposal facilities. To better address legitimate safety concerns about current on-site storage, including potential for catastrophic failures from densely packed SNF pools, any nuclear waste legislation should require HOSS facilities as soon as possible for commercial SNF.

B. The provisions should be eliminated that provide for schedule-driven identification of eligible disposal sites before new technically sound, publicly accepted standards are established by EPA and associated licensing regulations are then promulgated by the NRC. Another lesson that should have been learned from the experience of the past 30 years is that adequate time and resources must be devoted to establish technically sound, publicly accepted standards. Such standards must be in place before credible scientific site selection can begin. The DOE and congressional practice of first selecting sites and then trying to tailor standards to fit them must cease. Deadlines such as having standards or general guidelines for the consideration of candidate sites issued within one year of enactment are not consistent with using the best available science and ensuring opportunities for meaningful stakeholder participation – both of which are stated goals of the draft legislation. Furthermore, it will most certainly take longer than one year to get the new Nuclear Waste Administration working, hire staff, set-up advisory committees, etc. Laying a foundation that builds widespread confidence in the ability of the new organization to do its job well cannot be done swiftly, lest it be done poorly and exacerbate the problems we have seen over the past 30 years.

C. The decision to comingle defense and commercial waste in the same repositories should not be reconsidered. There is no technical basis to have separate defense and commercial repositories; the long-lived hazard of the wastes should have the same environmental protection requirements. The decision made in 1985 by President Reagan, pursuant to provisions of the Nuclear Waste Policy Act, should be preserved.
D. Provisions related to consent must be substantially changed and strengthened, including 1) allowance for states and tribes to establish their own decision-making processes, 2) full National Environmental Policy Act (NEPA) compliance, 3) binding “non consent,” and 4) public “informed consent.” In our representative democracy, the public will insist on playing a major role in decisions about nuclear waste. That is a key lesson from the experiences of the past 30 years. The minimal public hearing provisions are grossly insufficient and are inconsistent with virtually every study by independent organizations such as the National Academy of Sciences, whose committees have written reports about nuclear waste management and public participation, best practices from federal agencies with significant risk communication and public involvement activities (Food and Drug Administration, EPA), and every international nuclear waste program that has not collapsed in failure (Sweden, Finland, Canada).

While the draft legislation uses the rhetoric of “consensus” and “voluntary siting,” it does not establish a structure or process to ensure that either can be implemented. Section 304(f) specifies that a state governor, local governmental authority, and/or Tribal government provide consent for a facility. There is nothing explicit about community / public consent, and how this may be different from governmental authority consent. This is important because elected officials can come and go. “Consent” expressed by officials may not be stable unless there is a strong backing by constituents, especially for facilities that will take a long time to design, build, and operate. Trying to prescribe how states and tribes will participate and consent is inappropriate and shows a lack of understanding of existing processes in some states, including referenda or other measures that the public might require. NEPA is a proven process for providing essential technical analysis and public participation for decisions, particularly ones that include an explicit consent process. Legislation should clearly indicate that states and tribes can exercise binding “non-consent” in order to establish that “no means no” and to stop expenditures that will not lead to a repository. Conditions, mechanisms, and deadlines for re-evaluation and reconsideration (opt out) should be allowed at all stages.

There must be a requirement that consent be informed consent. This implies that interested and affected parties: have a say in determining what information is needed to address the issues and concerns they have (not what managers or scientists think is relevant); be provided information that contains the information needed for effective decision making; can access that information in a timely and easy manner, and; can comprehend what they access. Informed consent must be expressed by local officials, state officials, and the community at multiple points – about the new agency’s mission, guidelines and standards, and especially after site suitability and before site selection and any consent agreement is signed. The strength of informed consent should be evaluated and be a condition for site selection by the Administrator. The Administrator should consider the availability of and access to information in a timely manner and form that is understandable by potentially affected parties and that addresses their concerns. Because informed consent means having access to information that is relevant to interested and affected parties and building a solid foundation of consent that can last through multiple election cycles, legislation also should require that adequate funding be provided so the public can obtain independent technical analysis in order to provide “informed consent.”

4. **Responses to the 8 questions posed**
A. Considerations for locating storage facility sites

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 defense 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?

ANA Response – ANA opposes the proposed spent fuel storage facilities and urges that those provisions be eliminated from the bill. Instead, the bill should require HOSS facilities at commercial nuclear power plants.

Regarding (a) and (b), the DOE nuclear weapons and waste sites should not be considered for additional waste storage. The nation has moral and legal commitments to clean up those sites, and adding additional waste will delay and compromise necessary cleanup missions. Consistent with the principle that interim storage of HLW and SNF be as close to the point of generation as possible, as safely as possible, ANA recognizes that storage at DOE sites will continue until repositories are operating. ANA also supports stringent compliance agreements to have storage be as safe as possible.

Section 304(a)(1) requires the Administrator to select sites for characterization, even if they are not suitable. Such a requirement should not be included in any nuclear waste legislation.

Linkage between storage and repository

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?

ANA Response – ANA opposes the proposed spent fuel storage facilities and urges that those provisions be eliminated from the bill. Instead, the bill should require HOSS facilities at commercial nuclear power plants.

If there is HOSS rather than consolidated spent fuel storage facilities, Section 306 is unnecessary.

Should Congress ignore the opposition of ANA and many other organizations and individuals to consolidated spent fuel storage, linkage would be necessary. But even the strongest linkage – requiring commercial SNF to be removed from a consolidated storage site if a repository does not operate – would not prevent de facto permanent storage since the host state or tribe could not force consolidated storage on another location. ANA opposes any legislation that would increase the number of sites storing SNF or HLW.

Separate process for storage facility siting
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)?

ANA Response – ANA opposes the proposed spent fuel storage facilities and urges that those provisions be eliminated from the bill. Instead, the bill should require HOSS facilities at commercial nuclear power plants.

ANA strongly opposes the two separate spent fuel storage programs in the alternative section 305 and urges that they not be included in any legislation.

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?

ANA Response – ANA opposes the proposed spent fuel storage facilities and urges that those provisions be eliminated from the bill. Instead, the bill should require HOSS facilities at commercial nuclear power plants.

ANA supports holding public hearings (and full compliance with NEPA) and other measures that the public, states, and tribes may require, before and after site characterization for disposal facilities.

Complexity of repository and storage facility siting processes

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

ANA Response – ANA opposes the proposed spent fuel storage facilities and urges that those provisions in Section 304 be eliminated from the bill. Instead, the bill should require HOSS facilities at commercial nuclear power plants. Regulations for storage facilities should be established by rulemaking, with robust public participation requirements.

ANA supports a repository process that begins with EPA rulemaking to establish environmental protection standards for disposal facilities. After the EPA rules are finalized, NRC should conduct a rulemaking to establish new licensing regulations. Once the new EPA and NRC regulations are in place, potential disposal sites that are likely to meet the regulations should be identified with full participation of states, tribes, and the public. Anything less dooms the process to failure.

Governance of the Nuclear Waste Administration

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?

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

ANA Response – ANA develops its positions by consensus and has not made any determinations regarding the new entity.

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?

ANA Response – ANA develops its positions by consensus and has not made any determinations regarding the new entity.

ANA generally supports strong state, tribal, and public oversight and adequate funding so that they can provide or withhold “informed consent.”

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?

ANA Response – ANA develops its positions by consensus and has not made any determinations regarding the new entity.

ANA generally supports strong state, tribal, and public oversight and adequate funding so that they can provide or withhold “informed consent.”