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July 3, 2012

MEMORANDUM

TO: Senator Kevin Raye, President of the Senate, and Representative Robert Nutting, Speaker of the House

FROM: Mary Mayhew, Commissioner
Department of Health and Human Services

SUBJECT: State Nuclear Safety Inspector's September 2011 Monthly Report to the Legislature on the Interim Spent Fuel Storage Facility in Wiscasset, Maine

Legislation enacted in the spring of 2008 requires the State Nuclear Safety Inspector to provide monthly reports to the President of the Senate, Speaker of the House, the U.S. Nuclear Regulatory Commission, and Maine Yankee. The report focuses on activities at the site and includes highlights of the national debate on storing and disposing the used nuclear fuel.

The enclosed report provides the information required under Title 22 of the Maine Revised Statutes Annotated §666, as enacted under Public Law, Chapter 539, in the second regular session of the 123rd Legislature.

Should you have questions about its content, please feel free to contact Mr. Patrick J. Dostie, State Nuclear Safety Inspector, at 287-6721.

pjd

Enclosure

cc: Mark Lombard, U.S. Nuclear Regulatory Commission
Monica Orendi, U.S. Nuclear Regulatory Commission, Region I
James Connell, Site Vice President, Maine Yankee
Katrin Teel, Senior Policy Advisor, Governor's Office
Sheila Pinette, DO, Director, Maine Center for Disease Control and Prevention
Patricia W. Aho, Commissioner, Department of Environmental Protection
Richard Davies, Maine Public Advocate
Lieutenant Anna Love, Special Services Unit, Maine State Police
Nancy Beardsley, Director, Division of Environmental Health
Jay Hyland, PE, Manager, Radiation Control Program

Highlights of September Report

The following provides a listing of this month's major activities, both locally and nationally.

Local:

- The Maine Yankee Community Advisory Panel on Spent Fuel Storage and Removal (CAP) held its annual meeting at the Chewonki Foundation in Wiscasset. The CAP voted to extend its charter another two years.
- The Nuclear Regulatory Commission held a meeting with representatives from Maine Yankee, Connecticut Yankee, Yankee Rowe, Northeast Utilities (NU) and NSTAR to discuss the indirect license transfer request and potential implications of the merger between NU and NSTAR on the three Yankee facilities. At issue is the extent of foreign ownership of the stored spent nuclear fuel and its potential implications on such topics as security and safeguards information.

National:

- The Nuclear Regulatory Commission (NRC) released the final two Technical Evaluation Reports (TER) on the content of the Department of Energy's (DOE) Yucca Mountain repository license application. The Reports covered the repository's administrative and programmatic activities and its safety before permanent closure. The TERs captured the NRC staff's evaluation of the information provided by the DOE. Although the NRC staff did not issue any conclusions, they affirmed that the information provided was reasonable.
- The U.S. Government Accountability Office released a report examining information on alternative uses of the Yucca Mountain site and potential challenges.
- The Nuclear Regulatory Commission (NRC) issued an Order stating that it was divided over whether to overturn its Atomic Safety and Licensing Board's (ASLB) ruling denying the Department of Energy's motion to withdraw its license application for Yucca Mountain. The NRC stalemate kept the ASLB's ruling intact and became the official decision of the NRC. The sustaining of the denial should have prompted a restart of the licensing proceedings. Instead, the Order further directed the NRC staff and the ASLB to cease all its reviews on the Yucca Mountain license application by the end of September, effectively contradicting its own ruling.
- The States of Washington and South Carolina, Aiken County in South Carolina, the Yucca Mountain host community, Nye County in Nevada, the Tri-City business leaders from Hanford, Washington, and the National Association of Regulatory Utility Commissioners filed a motion with the U.S. Court of Appeals for the District of Columbia for expedited consideration in light of the Nuclear Regulatory Commission's Order to cease all Yucca Mountain activities by September 30th.
- The Nuclear Regulatory Commission held a meeting to inform stakeholders on their waste confidence and extended storage activities for spent nuclear fuel. The NRC's Waste Confidence Rule, which was enacted in December of 2010, allows on-site dry cask storage for up to 60 years beyond the licensed life of a reactor. The extended storage concept would allow dry cask storage on-site up to 300 years.
- On September 30th the Nuclear Regulatory Commission's Atomic Safety and Licensing Board issued an Order ceasing all license activities due to uncertain funding, effectively shutting down the Yucca Mountain Project.

State Nuclear Safety Inspector Office

September 2011 Monthly Report to the Legislature

Introduction

As part of the Department of Health and Human Services' responsibility under Title 22, Maine Revised Statutes Annotated (MRSA) §666 (2), as enacted under Public Law, Chapter 539 in the second regular session of the 123rd Legislature, the foregoing is the monthly report from the State Nuclear Safety Inspector.

The State Inspector's individual activities for the past month are highlighted under certain broad categories, as illustrated below. Since some activities are periodic and on-going, there may be some months when very little will be reported under that category. It is recommended for reviewers to examine previous reports to ensure connectivity with the information presented as it would be cumbersome to continuously repeat prior information in every report. Past reports are available from the Radiation Control Program's web site at the following link: www.maineradiationcontrol.org and by clicking on the nuclear safety link in the left hand margin.

Commencing with the January 2010 report the glossary and the historical perspective addendum are no longer included in the report. Instead, this information is available at the Radiation Control Program's website noted above. In some situations the footnotes may include some basic information and may redirect the reviewer to the website.

Independent Spent Fuel Storage Installation (ISFSI)

During September the general status of the ISFSI was normal, except for two power losses that occurred, one on September 2nd and the other on September 3rd. In both cases the power losses were from events off-site. The back-up diesel started normally on both occasions and powered all the necessary electrical loads on-site until power was restored. The first outage lasted about four hours and the second about 30 minutes.

There were two fire-related impairments in September. The first impairment occurred on September 5th and was due to a malfunctioning door closure latch. The latch was adjusted and returned to service the same day. The second was on September 12th and involved the same door closure latch. The latch was adjusted and functioned properly, but a new latch was installed the next day.

There were no security related impairments in September. However, there were seven security events logged for the month and all were due to transient camera issues due to environmental conditions. There were no instances of spurious alarms due to environmental conditions.

There were four condition reports[1] (CR) for the month and they are described below.

1st CR: Documented a very small gas spill, about the size of a teaspoon. The spill was cleaned up immediately.

2nd CR: Documented a hand burn received from a hot mower muffler.

[1] A condition report is a report that promptly alerts management to potential conditions that may be adverse to quality or safety. For more information, refer to the glossary on the Radiation Program's website.

3rd CR: Issued to track open items associated with the annual vertical concrete cask (VCC) inspection.
4th CR: Was written to document a missing serial number digit on a procedure attachment.

On September 7th Maine Yankee security notified the Wiscasset Police Department and the Lincoln County Sheriff's Office of a group of people on Ferry Road near the ISFSI. The "Walk for Fukushima" group was walking from Rockland to the Japanese Consulate in Boston to address concerns associated with the Fukushima nuclear plant in Japan. The participants stopped in Wiscasset to visit the former Maine Yankee power plant site. Since the group never came on-site, there was no need for Maine Yankee to contact the Nuclear Regulatory Commission's Operations Center.

On the same day site security observed an unmanned vehicle on Ferry Road near the Ferry Landing. Again, the local law enforcement agencies were notified and responded. Apparently, two people were found on Point East property looking at the property. Since they were not on Maine Yankee property, the Nuclear Regulatory Commission's Operations Center was not notified.

On September 13th Maine Yankee submitted its annual Special Nuclear Material Report to the Department of Energy. The report provided a material balance sheet on the amount of such elements as Uranium-233, Uranium-235 and Plutonium in the stored spent fuel in their possession.

Environmental

Commencing with the second quarter the State has embarked on a program to better quantify the individual impacts of storage and transit exposures to the thermoluminescent dosimeters[2] (TLDs). As part of that assessment the State is utilizing a pre-World War II steel container at the Health and Environmental Testing Laboratory (HETL). The assessment, which is expected to last about two years, will allow for more accurate comparisons between control TLDs and field results. On September 19th three of the seven control TLDs received were returned to the State vendor, Global Dosimetry, for analysis of the transit exposures.

Groundwater Monitoring Program

Maine Yankee notified the State that it expected to issue its response to the State's comments on Maine Yankee's final groundwater report in early October.

Other Newsworthy Items

1. On September 1st the Maine Yankee Community Advisory Panel (CAP) held its annual meeting at the Chewonki Foundation in Wiscasset. The CAP voted to extend its charter another two years. Maine Yankee provided a site update and noted that even though Tropical Storm Irene caused a 12 hour power outage the diesel generator powered the site until power was restored. Most of the meeting was focused on preparing a response to the Blue Ribbon Commission on America's Nuclear Future's July 29th draft report. On September 30th a response was drafted for the CAP to review and comment on.

2. On September 1st the Nuclear Regulatory Commission (NRC) released the second Yucca Mountain Technical Evaluation Report on repository safety before permanent closure. The NRC Staff's review found as reasonable a) the proposed geologic repository operations area, b) the identification

[2] Thermoluminescent Dosimeters (TLD) are very small, passive radiation monitors requiring laboratory analysis. For a further explanation, refer to the glossary on the Radiation Program's website.

of structures, systems, and components important to safety, and c) the permanent closure and decontamination or decontamination and dismantlement of surface facilities. The Department of Energy agreed to evaluate additional design details and conduct analyses to confirm the safety functions of structures, systems, and components important to safety. A copy of the NRC news release is attached.

3. On September 6th the Nuclear Regulatory Commission (NRC) issued a meeting notice on a public meeting at NRC headquarters to discuss the indirect license transfer request relative to the pending merger of Northeast Utilities and NSTAR and the extent of its impact on the three decommissioned sites in New England: Maine Yankee, Connecticut Yankee and Yankee Rowe. A copy of the meeting notice and agenda are attached.

4. On September 6th the Blue Ribbon Commission received comments from a nuclear engineer who proffered the integral fast reactor (IFR) as a technology concept that could drastically reduce the need for storage and disposal of spent nuclear fuel across the country. The IFR concept uses spent fuel and depleted uranium from uranium processing to fuel the fast reactor and burns it more efficiently than present reactors. One reactor benefit is its passive shutdown properties thereby preventing core meltdowns. Another benefit is its ability to withstand certain reactor accidents such as a loss of flow without injecting control rods to shutdown the reaction immediately, which usually induces pressurized thermal shock (PTS) and challenges the integrity and safety of the reactor vessel. PTS is especially important in older vessels as they become embrittled over time due to radiation and neutron exposure. If elements heavier than uranium are reprocessed using pyro-electrolysis instead of the current water technique, then it could be possible to dispose of the waste stream in geologic facilities designed for 400 years as compared to the hundreds of thousands of years now envisioned for Yucca Mountain in Nevada. Copies of the letter and comments are attached. In addition, mass flow diagrams were included to illustrate the current light water technology (LWR) versus the IFR concept with its disposal savings.

5. On September 7th the quarterly conference call of the Federal Energy Regulatory Commission rate case settlement briefing took place with representatives from the states of Connecticut, Maine and Massachusetts. The briefing provided the status of the nuclear waste lawsuits against the federal government, national activities, such as the Blue Ribbon Commission, Congress, the Yucca Mountain Project Litigation, the Nuclear Regulatory Commission, the Decommissioning Plant Coalition, the Nuclear Waste Strategy Coalition efforts, the Nuclear Energy Institute, the Council of State Governments, and the National Association of Regulatory Utility Commissioners. Regional activities included those of the New England Governor's Conference and the New England Council.

6. On September 9th the Nuclear Regulatory Commission (NRC) issued a "Memorandum and Order" stating that the Commission was deadlocked on a decision of whether to uphold or overturn the NRC's Atomic Safety and Licensing Board (ASLB) decision to deny the Department of Energy's (DOE) motion to withdraw its license application for the construction of a geologic repository at Yucca Mountain in Nevada. The tie vote leaves the July 29, 2010 ASLB ruling intact and as the final decision of the NRC. The decision should have compelled the NRC to consider DOE's application. Instead the Commission did the opposite and directed the staff and the ASLB to close all activities and license proceedings on Yucca Mountain by the end of the current fiscal year, September 30, 2011. A copy of the order is attached.

7. On September 12th Nuclear Regulatory Commissioner, William Magwood, issued his views on his decision to support the Department of Energy's (DOE) motion to withdraw its Yucca Mountain license application. Commissioner presented his rationale for his views on what he considered appropriate before the Commission. He agreed with the Nuclear Regulatory Commission's Atomic

Safety and Licensing Board's (ASLB) decision implementing a change in national policy would require Congressional approval. However, he believed the motion to withdraw the license application did not rise to the same level as national policy and therefore, voted to overturn the ASLB ruling that denied the DOE's motion to withdraw. A copy of his views are attached.

8. On September 12th, on behalf of all petitioners, the senior counsel for the State of Washington sent a letter to the Nuclear Regulatory Commission's (NRC) Office of the General Counsel expressing concerns that the NRC Order issued on September 9th was contradictory. The letter specifically requests the NRC's Office of General Counsel to confirm if the directive to close all activities by the end of September would direct the NRC's Atomic Safety and Licensing Board to issue another decision on the Yucca Mountain license application and whether the NRC will make a final decision on the license application as mandated by the Nuclear Waste Policy Act. A copy of the letter is attached.

9. On September 13th the Blue Ribbon Commission on America's Nuclear Future held its first regional meeting in Denver to receive input from stakeholders on its July 29th draft report to the Secretary of Energy on how the nation should manage its used nuclear fuel stockpile. The meeting was held in concert with the Western Governors' Association's High-Level Waste Committee. The interactive breakout sessions focused on reactions from state, local, tribal and non-government organizations and elicited responses on how to improve interactions between the federal government and other government entities and communities. The meeting is one of five scheduled meetings nationwide. Copies of the agenda and highlights from the breakout sessions are attached.

10. On September 13th the Yankee Rowe Spent Fuel Storage & Transportation Community Advisory Board (CAB) sent a letter to the Co-Chairs of the Blue Ribbon Commission on America's Nuclear Future relating their comments on the BRC's July 29th draft report to the Secretary of Energy. The Chair of the CAB expressed urgency in removing the spent nuclear fuel and the Greater Than Class C wastes on a priority basis from the decommissioned reactor site in Massachusetts. The letter also expressed concerns on the site's inability to remove the spent fuel from the canisters for inspection purposes to support long term relicensing efforts. The letter did advocate for the Department of Energy to immediately lay the groundwork for implementing consolidated storage and to involve state, tribal, and local officials in extensive transportation planning and preparation efforts. A copy of the letter is attached.

11. On September 13th the Nuclear Regulatory Commission issued a news release indicating that they had released its third and final Technical Evaluation Report describing the administrative and programmatic activities of the Department of Energy's (DOE) Yucca Mountain Repository License Application. The NRC's conclusions were that the DOE's information was reasonable in regards to the:

    - Program descriptions on research and development, performance confirmation, quality assurance, training, records, tests, and inspections,
    - Descriptions of the organizational structure, key positions, and personnel qualifications,
    - Descriptions of plans for startup testing, conduct of normal activities, responding to and recovering from radiological emergencies, and uses of the geologic repository operations area for purposes other than disposal of radioactive wastes, and
    - Controls to restrict access and regulate land use and noted that the DOE does not currently have ownership of the land or water rights.

    A copy of the news release is attached.

12. On September 13th-14th the U.S. Nuclear Waste Technical Review Board (NWTRB) held a meeting in Salt Lake City, Utah to discuss the Department of Energy's plans for research and development related to its Used Fuel Disposition Program. The two day meeting focused on such areas as research on transportation and long term storage of spent nuclear fuel, studies of various potential geologic media for disposing of spent nuclear fuel and high-level waste, and DOE's Used Fuel Disposition research and development Roadmap. A copy of the agenda is attached along with a statement on the importance that the NWTRB attaches to the radiation source term in a geologic repository.

13. On September 14th the Nuclear Waste Strategy Coalition held its bi-monthly conference call to update its membership on congressional appropriation efforts for Fiscal year 2012, the recent Blue Ribbon Commission's draft recommendations, the Nuclear Regulatory Commission's (NRC) Order directing the cessation of all NRC activities pertaining to Yucca Mountain, the upcoming NRC meeting to discuss extended storage of used nuclear fuel, and the status of the two lawsuits pending before the U. S. Court of Appeals for the DC Circuit on the withdrawal of the Yucca Mountain license application and the Nuclear Waste Fund fees. The NWSC is an ad hoc group of state utility regulators, state attorneys general, electric utilities and associate members representing 45 stakeholders in 32 states, committed to ensuring that the Department of Energy and Congress carry out the principles outlined in the Nuclear Waste Policy Act, as amended.

14. On September 15th the Sustainable Fuel Cycle Task Force issued a press release and a letter to the U.S. Senate noting that "26 Organizations Call for the Resumption of Yucca Mountain Review". The letter quoted some of the Blue Ribbon Commission's draft report's findings on how the nation's failure has proved damaging and costly, emphasized a sense of urgency to resolve the back end of the nuclear fuel cycle since further delays will become more damaging and costly, and left numerous states, communities, and ratepayers wondering "if the federal government will ever deliver on its promises". The host county in Nevada and five other counties bordering the Yucca mountain Project were signatories to the letter. A copy of the letter is attached.

15. On September 16th the U.S. Government Accountability Office (GAO) released a report, "YUCCA MOUNTAIN – Information on Alternative Uses of the Site and Related Challenges". The report examined the "characteristics of the Yucca Mountain site, stakeholders' proposed alternative uses and experts' evaluations of them, and challenges, if any, in pursuing alternative uses". Stakeholders proposed 30 alternative uses that extend over five broad categories.

    - Nuclear or radiological uses, such as reprocessing,
    - Defense or homeland security activities,
    - Information technology,
    - Energy development or storage, such as renewable energy
    - Scientific research in geology or mining.

    Whatever uses are contemplated the site could face legal and administrative challenges. A copy of the GAO Highlights is attached.

16. On September 16th plaintiffs from the states of Washington and South Carolina, Aiken County in South Carolina, Nye County in Nevada, and the three business leaders from the Tri-City area near the Hanford site in Washington, and the National Association of Regulatory Utility Commissioners filed their response to the Nuclear Regulatory Commission's (NRC) "Notice of Underlying Decision" that directed the NRC Staff and its Atomic Safety and Licensing Board to complete their review of the Yucca Mountain license application by September 30th. In addition, the petitioners

also made a motion for expedited consideration of their petition in light of the NRC's dismantling of the Yucca Mountain license process by September 30th.

17. On September 20th the Nuclear Regulatory Commission (NRC) held a public meeting to discuss the indirect license transfer request relative to the pending merger of Northeast Utilities and NSTAR and the extent of its impact on the three decommissioned sites in New England: Maine Yankee, Connecticut Yankee and Yankee Rowe. The concern revolved on the extent of foreign ownership of the stored spent nuclear fuel and its potential implications on such topics as security and safeguards information at the three storage facilities. Central Maine Power (CMP), which directly owns a 38% share of Maine Yankee's spent fuel storage facility in Wiscasset, is owned by Iberdrola SA of Spain. Bangor Hydro and Maine Public Service collectively, directly own 12% of Maine Yankee, and are owned by subsidiaries, which are owned by Emera, Inc., a Canadian firm. The Northeast Utilities and NSTAR will merge into Northeast Utilities (NU), which will indirectly own 24% of Maine Yankee. Maine Yankee maintained that, since all of the post merger NU Trustees will be U.S. citizens, NU will not be subject to foreign ownership, control or domination (FOCD). In addition, Northeast Utilities intends that all members of the Maine Yankee Board that are appointed by subsidiaries of the post merger NU will also be U.S. citizens to preclude FOCD.

18. On September 28th the Nuclear Regulatory Commission (NRC) held its first of three public meetings to inform stakeholders of its extended storage and waste confidence activities for spent nuclear fuel storage and transportation. The NRC's Waste Confidence Rule enacted in December of 2010 allowed storage of spent fuel up to 60 years beyond the licensed life of a nuclear reactor. Reactors are typically licensed for up to 60 years. The NRC is evaluating the potential for extended storage of used nuclear fuel in dry storage casks out to 300 years. A copy of the agenda is attached.

19. On September 29th the Sustainable Fuel Cycle Task Force sent a letter to the Co-Chairs of the Blue Ribbon Commission (BRC) presenting their comments on the BRC's July 29th draft report. The comments raised numerous concerns spanning seven broad areas.

    1. Need to Preserve All Alternatives
    2. Deep Bore holes
    3. Historical Reality Complications
    4. Regulation Development Complications
    5. Interim Storage is Realistically Linked to Meaningful Repository Progress
    6. National Needs vs. Consensus
    7. Legal & Ethical Needs

    A copy of the letter is attached.

20. On September 30th the Nuclear Regulatory Commission's (NRC) Atomic Safety and Licensing Board (ASLB) issued an Order suspending its Yucca Mountain license proceedings due to uncertain funding. At the time of suspension there were fourteen intervenors, two interested parties, and 288 admitted contentions still pending. A copy of the Order without the Appendix is attached.

NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION
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Blog: http://public-blog.nrc-gateway.gov

No. 11-165 September 1, 2011

NRC ISSUES SECOND OF THREE TECHNICAL EVALUATION REPORTS ON DOE'S YUCCA MOUNTAIN LICENSE APPLICATION

The Nuclear Regulatory Commission has published the second of three technical evaluation reports (TERs) detailing the agency staff's review of the Department of Energy's license application for a high-level waste repository at Yucca Mountain in Nevada.

Publication of the report provides the staff's technical review of the pre-closure information in the Yucca Mountain application. This TER does not include findings as to whether NRC's regulatory requirements have been satisfied.

"Technical Evaluation Report on the Content of the U.S. Department of Energy's Yucca Mountain Repository License Application; Preclosure Volume: Repository Safety Before Permanent Closure," is part of the agency's orderly closeout of the Yucca Mountain license review process and is intended as a public record of the staff's scientific and technical work in preparing for and reviewing the application. It was developed using the draft Volume 2 of the staff's Safety Evaluation Report (SER) on the application.

A TER on postclosure safety, based on what would have been Volume 3 of the SER, was issued publicly on July 21. (Volume 1 of the SER was published in August 2010, before the licensing review was stopped.) The TERs were prepared as part of the agency's knowledge management activities during the closeout of the Yucca Mountain licensing review. The closeout, including publication of the third TER, is expected to be complete by Sept. 30.

The TER is available on the NRC website's Yucca Mountain page.

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September 6, 2011

MEETING NOTICE

Organization:	Maine Yankee Atomic Power Company, Connecticut Yankee Atomic Power Company, Yankee Atomic Electric Company (together referred to as the "Yankee Companies"), Northeast Utilities, NSTAR
Date:	September 20, 2011 9:00 a.m. – 11:00 a.m. (Eastern Daylight Time)
Location:	U.S. Nuclear Regulatory Commission (NRC) Executive Boulevard Building, Room 1-E-03 6003 Executive Boulevard Rockville, Maryland 20852
Purpose:	To discuss: (1) status of review of the indirect license transfer request related to pending merger of Northeast Utilities and NSTAR; (2) status of review of request for exemption from 10 CFR 50.38; and (3) decommissioning financial assurance.

Participants:	NRC	Yankee Companies	Northeast Utilities/NSTAR
	M. Waters	W. Norton	T. Matthews, *et al.*
	K. Banovac	D. Repka, *et al.*	
	T. Fredrichs		
	A. Simmons		
	S. Uttal		
	B. Mizuno, *et al.*		

Meeting Category:* This is a **Category 1 Meeting**. The public is invited to observe this meeting and will have the opportunity to communicate with the NRC after the business portion of the meeting but before the meeting is adjourned. The NRC's Policy Statement, "Enhancing Public Participation on NRC Meetings," effective May 28, 2002, applies to this meeting. The policy statement may be found on the NRC website, www.nrc.gov, and contains information regarding visitors and security.

The NRC provides reasonable accommodation to individuals with disabilities where appropriate. If you need a reasonable accommodation to participate in this meeting or need a meeting notice, a transcript, or other information from this meeting in another format (e.g., Braille, large print), please notify the meeting contact. Determinations on requests for reasonable accommodation will be made on a case-by-case basis.

* Commission's Policy Statement on "Enhancing Public Participation in NRC Meetings" (67 FR 36920), May 28, 2002.

Contact: Kristina Banovac, 301-492-3571, Kristina.Banovac@nrc.gov

Attendance at this meeting by other than those listed above should be made known by September 16, 2011, by phone or email to the above contact.

Docket Nos.: 50-309, 50-213, 50-029, 72-30, 72-39, 72-31
TAC Nos.: L24496, L24497, L24498, L24538, L24565, L24566

Enclosure: Meeting Agenda

MEETING AGENDA

Meeting with Maine Yankee Atomic Power Company, Connecticut Yankee Atomic Power Company, Yankee Atomic Electric Company (together referred to as the "Yankee Companies"), Northeast Utilities (NU), NSTAR

September 20, 2011
9:00 a.m. – 11:00 a.m.
EBB-1-E-03

- Introduction (NRC)
- Opening Comments (NRC, Yankee Companies/NU/NSTAR)
- Discussion on status of review of indirect license transfer request related to pending merger of NU and NSTAR (NRC, Yankee Companies/NU/NSTAR)
- Discussion on status of review of request for exemption from 10 CFR 50.38 (NRC, Yankee Companies)
- Discussion on decommissioning financial assurance (NRC, Yankee Companies)
- Closing comments (NRC, Yankee Companies/NU/NSTAR)
- Opportunity for public comment (Public)
- Adjourn

Enclosure

September 6, 2011

To: Blue Ribbon Commission on America's Nuclear Future

To the attention of: The Honorable Lee Hamilton, Co-Chair,
The Honorable Brent Scowcroft, Co-Chair.

Department of Energy
Timothy A. Frazier, *Designated Federal Officer*
1000 Independence Avenue Southwest
Washington, D.C. 20585-0001

Gentlemen:

The nation should be most thankful for your willingness to serve and for your effort in addressing one of the U.S.' most urgent problems. With great interest but with some disappointment, have I taken notice of the content of the July 2011 draft report of your Blue Ribbon Committee: While the report contains many worthwhile considerations, it seems to be short on long-term policy insights and it does not offer a viable solution for the current spent-fuel dilemma. In order to better understand how the U.S. arrived where it is now, some background information may perhaps be useful. I beg therefore to be allowed to digress briefly:

Having dedicated my working career to nuclear energy since 1957, both in industry and in research, it has been with profound sadness that I have witnessed the decline of the U.S. global leadership in this area. This decline started in the second half of the 1960s when the Atomic Energy Commission (AEC), later followed by ERDA and DOE, embarked on a program of micro-managing rather than providing broad policy outlines as had been the earlier practice. Among the main presumed justifications for this change was the fact that EBR-II (a first-of-a-kind project) had been built with a cost overrun of about 20% and with a delay of around two years on its original estimated schedule. Those who were considered responsible for this EBR-II "debacle", were frozen out and their accumulated experience was lost to a large extent. From then on, abject servility was required from any organization and persons dealing with AEC/ERDA/DOE. The follow-up project, the Fast Flux Test Facility (FFTF), was finally built with a delay of over ten years and a cost overrun of about 1,000%. It never operated as intended and was shut down. It stands in the Richland, WA area as reminder of 'great insight' and 'excellent management skills'.

The next major step in the decline of U.S. nuclear leadership occurred in 1977 when President Carter declared that the U.S would thence forward forego the reprocessing of spent nuclear fuel and that the fast breeder program was to be terminated. As a follow-up, the Clinch River Breeder Reactor (CRBR) project was shut down.

Shortly after President Carter's declaration, a large international conference on nuclear fuel cycle development was held in Salzburg, Austria. The full papers had been approved several months earlier (i.e. prior to Carter's policy change) and were available in printed form at the conference, including those prepared by a large delegation of U.S. scientists / engineers. These U.S. papers explained in detail the road to be followed for developing nuclear fission technology into an inexhaustible source of energy in the service of humanity, as had been foreseen earlier by great scientists such as Enrico Fermi and Walter Zinn.

As a participant in this international conference, I had the very sad experience of having to be a witness to the public humiliation of all the participating U.S. scientists by their own government, which forbade the distribution of any of their printed papers. Furthermore, all U.S. scientists / engineers were "invited" into a meeting room (i.e., instructed to attend) where they were told in no uncertain terms not to speak in support of any programs that were not in line with the new U.S. policy. I believe it may be difficult to find another example in modern times in which an industrial nation has publicly humiliated and insulted its own leading scientists in this way. For a democratic nation to 'throw around its weight' at an international scientific conference and to interfere with the free exchange of information by denying its citizens the right to express their opinions, should certainly be cause for some misgivings and questioning.

The final blow to U.S. nuclear leadership came in the 1990s when, under President Clinton, the last surviving vestiges of fast-neutron fission technology development were killed and when the EBR-II reactor, after more than 30 years of flawless operation as a test reactor, was shut down for misguided political reasons. As a consequence of this, the U.S. lost its only in-pile test-bed for fast-reactor fuel development and closed off a very successful road which had already led to burn-up levels with metallic fuel that are about five times higher than those achieved in light-water reactors.

I hope you will accept my apologies for bringing up this short historical account which is not intended to cast aspersions on, or imply any culpability of, the current staff of DOE, but is solely aimed at 'learning-from-the-past' by recalling how a combination of misguided-policy decisions and a lack of insight, has resulted in the current dilemma. If the U.S. had not embarked on a self-destructive course of action and if it had followed the ideas of Enrico Fermi and Walter Zinn, as further detailed in numerous publications by leading U.S. and non-U.S. scientists and engineers (including, Bernard Cohen, Leonard Koch, Charles Till, Georges Vendryes from France, Wolf Haefele from Germany, etc.), the U.S. could have found itself still among the global nuclear leaders. As it is, other nations (France, Russia, Japan, India, China) are now leading in nuclear energy development for peaceful purposes, and the U.S. will find itself more and more relegated to the position of observer, no longer capable of affecting global nuclear policies.

Rather than giving detailed comments on your report, I hope you will allow me to make some suggestions as to the future road to be followed by the U.S. These suggestions are presented in bullet format for the sake of brevity. I shall be glad to elaborate on them, if so desired.

Respectfully submitted,

Jan B. van Erp, nuclear engineer,
Past Vice-Chairman Illinois Commission on Atomic Energy,
548-552 West 58th Place
Hinsdale, IL 60521
Tel. 630-325-7938 or 773-973-4819
E-mail vanerp@AOL.com

Appendix

Why the U.S. needs to re-start Development of Fast-Neutron Fission Technology

- Development of Fast-Neutron Fission Technology (FNFT) needs to be re-started, among others to:
  - **offer a solution to the nuclear waste dilemma,**
  - **reap the full benefits of nuclear energy,**
  - **restore some of the U.S. global nuclear leadership role.**

- Reprocessing of spent fuel constitutes an integral part of FNFT. The recommended reprocessing technique is pyro-electrolysis which differs from the currently followed aqueous reprocessing in that no water is used. Pyro-electrolysis offers great advantages, over aqueous reprocessing including:
  - **enhanced proliferation resistance,**
  - **sharp separation of actinides from other radioactive fission products**, thus reducing the radioactivity of waste to a historical time scale of some 400 years,
  - **low probability for reactivity incidents** (this could be relatively high for the aqueous version in case of fast reactor fuel with considerably higher fissile content than LWRs).

- It is recommended to **re-start the development of pyro-electrolysis** no later than 2012, including its **adaptation to LWR oxide fuels.** This promising technology has been proved on a laboratory scale but needs further development to upgrade it to commercial scale *This program should have highest priority*.

- It is recommended to start construction **of a fast-reactor demonstration plant** (e.g., PRISM, developed at GE), in view of the fact that (subsequent to the shut-down of EBR-II) no in-pile test bed is available in the U.S for fast reactor fuel development.

- Pyro-electrolysis is highly **resistant to proliferation** in that Pu-239 is not separated out in pure form at any stage of the process, but will remain mixed with other actinides, preventing its use as weapons material. Furthermore, the **pyro-electrolysis and fuel-fabrication plants may be co-sited with the electricity generating plant** (as suggested in the **IFR concept**, developed by Argonne National Laboratory), thus further enhancing proliferation resistance by obviating off-site transportation of spent fuel. Only fission products would leave the site.

- Pyro-electrolysis is capable of achieving a **high degree of separation** of the long-lived actinides, which can be 'burned' in the fuel. Consequently, the remaining radioactive waste (i.e., fission products) will **decay to background radiation levels in about 300 to 400 years**, rather than in hundreds of thousands of years.

- FNFT is capable of fissioning all uranium (i.e., both uranium recovered from spent fuel as well as depleted uranium left at the enrichment plants), thus **able to harvest about 100 times (i.e. 10,000%) more energy** from the same amount of mined uranium. Spent fuel, rather than being radioactive waste, is a valuable asset for the production of energy.

- The currently available spent fuel and the stored depleted uranium from enrichment plants, if used in FNFT, **suffice to supply all needed energy for hundreds of years,** without any additional mining being required.

- Additional mined uranium (if necessary from lower-grade deposits and/or from the sea) will make FNFT an **inexhaustible source of energy**, placing it in the same category as wind- and solar-energy, which are often referred to as 'renewable'.

- Fast reactors in conjunction with reprocessing can **lessen the amount of the spent fuel and drastically reduce the volume of radioactive waste,** which will consist only of fission products with relatively short half-lives.

- Fast reactors with metal fuels offer certain valuable **inherent safety-enhancing characteristics** that are not present in the current generation of commercial nuclear power plants. This was shown to an international audience in the 1980s during a demonstration at EBR-II in which a number of postulated 'accidents' were simulated, including Loss-of-Flow without scram and Loss-of-Heatsink without scram.

- **Aqueous reprocessing is prone to nuclear-weapons proliferation** because it is capable of separating out plutonium that has the chemical purity needed for weapons. The current generation of commercial nuclear power plants (referred to as 'thermal reactors' of the Light-Water Reactor type – LWR) is **capable of using less than 1% of mined uranium**. Apart from this being extremely wasteful, it leads to large quantities of spent fuel and even larger quantities of depleted uranium.

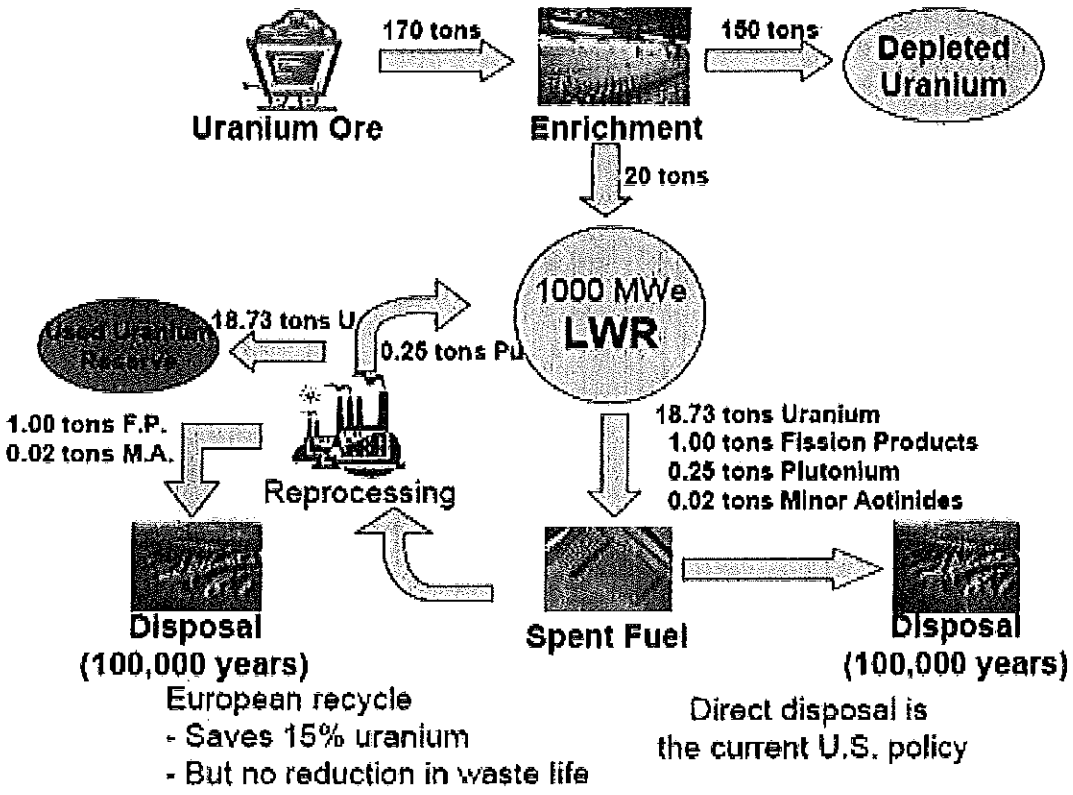
- **The once-through fuel cycle, as currently applied in the U.S., is not sustainable.** Even if there may be adequate supplies of uranium available at economically viable price levels for the coming decades, to continue accumulating spent fuel as a legacy for future generations, is not acceptable. Furthermore, without reprocessing, a large number of spent-fuel storage facilities of the size of Yucca Mountain will have to be built.

- **Increased global capability of uranium enrichment will be prone to nuclear-weapons proliferation**, as has already been shown (Pakistan, Iran, North Korea). Such an increase will be required if the once-through fuel cycle were to be continued in conjunction with a world-wide increase of nuclear energy use. However, once FNFT is available, no further extension of enrichment capability would be necessary.

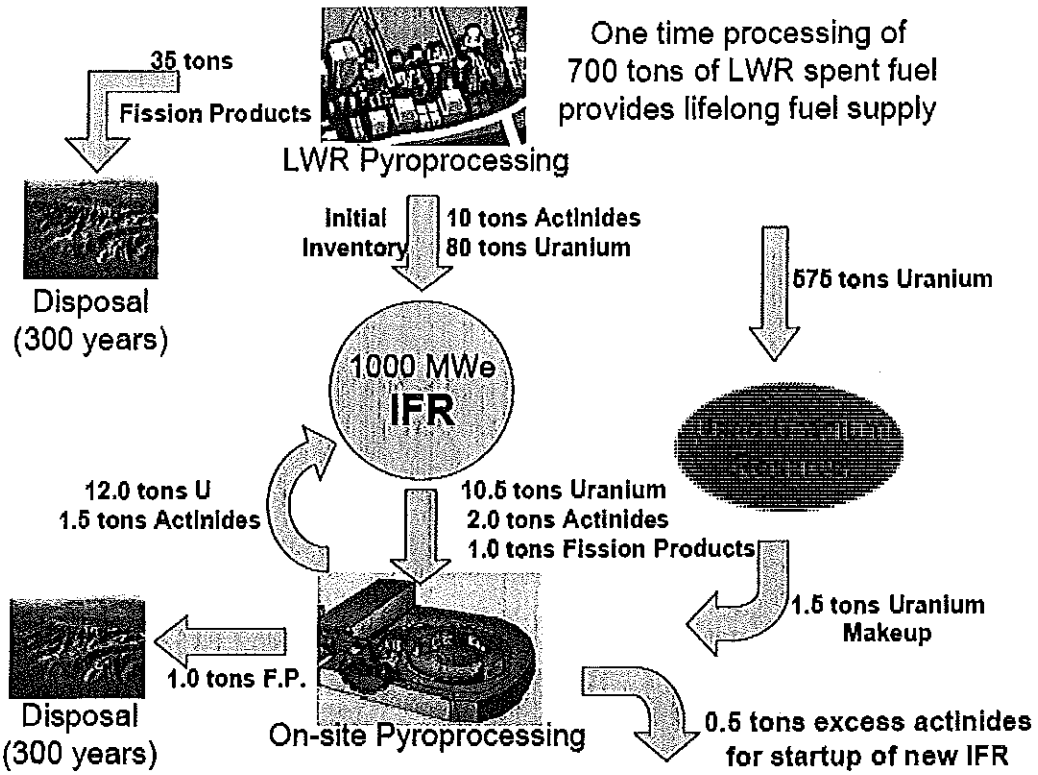
- *It is ironic that President Carter's intention of preventing the proliferation of nuclear weapons by limiting nuclear energy generation to the once-through fuel cycle, may actually have resulted in enhancing the likelihood of proliferation by requiring increased global enrichment capability.*

- World population growth, together with the need to reduce CO_2 emissions and the fact that fossil fuels are a limited resource to be left for future generations, will inevitably require an increased global use of nuclear energy. **It is important that the U.S. will again become an active and technically competent participant in steering this development on the right course.** A technically incompetent U.S. will undoubtedly be relegated to the role of passive observer. The Global Nuclear Energy Partnership (GNEP) initiative should be re-started.

Annual Mass Flow for LWR



Annual Mass Flow for IFR



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Kristine L. Svinicki
George Apostolakis
William D. Magwood, IV
William C. Ostendorff

In the Matter of U.S. DEPARTMENT OF ENERGY (High-Level Waste Repository)	Docket No. 63-001-HLW

CLI-11-07

MEMORANDUM AND ORDER

On June 30, 2010, the participants were invited to submit briefs as to whether the Commission should review, and reverse or uphold, the Board's decision denying the Department of Energy's motion to withdraw its construction authorization application with prejudice.[1] Upon consideration of all filings in this matter, the Commission finds itself evenly divided on whether to take the affirmative action of overturning or upholding the Board's decision.

Consistent with budgetary limitations, the Board has taken action to preserve information associated with this adjudication.[2] In furtherance of this, we hereby exercise our inherent supervisory authority to direct the Board to, by the close of the current fiscal year, complete all

[1] *See* LBP-10-11, 71 NRC __ (June 29, 2010) (slip op.); Order (June 30, 2010) (unpublished).

[2] *See generally* Memorandum of Daniel J. Graser, Licensing Support Network Administrator (LSNA), to the Administrative Judges, "Shutdown of the Licensing Support Network" (July 26, 2011); Order (Concerning LSNA July 26, 2011 Memorandum) (July 28, 2011) (unpublished).

necessary and appropriate case management activities, including disposal of all matters currently pending before it and comprehensively documenting the full history of the adjudicatory proceeding.

IT IS SO ORDERED.[3]

For the Commission

[NRC SEAL]

/RA/

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 9th day of September, 2011.

[3] Commissioner Apostolakis has recused himself from this adjudication and, therefore, did not participate in this matter. *See* Notice of Recusal (July 15, 2010).

Commissioner Magwood's Views on the Matter of
DOE's Request to Withdraw its Repository License Application
From NRC Consideration

September 12, 2011

Over the past year and half, the Department of Energy's (DOE's) application for a construction authorization license for national High Level Waste repository at the Yucca Mountain, Nevada site has the subject of considerable attention in the public, in Congress, and at the Nuclear Regulatory Commission (NRC). As has been well publicized, DOE filed a motion to withdraw its license application in the spring of 2010, which was rejected by the NRC's trial-level Board. Since that time, the agency's actions—and inactions—have been heavily scrutinized. Many have questioned whether the NRC—which is proud of its culture of openness and transparency—has been unnecessarily secretive. Worse, some have come to believe that the agency's decision-making has been politicized.

In order to do what I can, as an individual Commissioner, to dispel these concerns, I have decided to take the unusual step of providing my personal views on this matter. In deference to the interests of my colleagues on the Commission and to avoid the risk of setting a precedent for the future, I am not releasing my actual vote. However, the discussion provided here captures the substance of my formal vote.

As I read it, Congress established a multi-step process for the evaluation of a national repository site in the Nuclear Waste Policy Act (NWPA). As a matter of policy, Congress identified the Yucca Mountain site as the site that is to be considered. Much of the Board's decision to reject DOE's motion to withdraw its application is based on the precept that DOE cannot substitute its policy judgment regarding the process to develop a national high level nuclear waste repository in place of the judgment applied by Congress in the form of standing law that has been implemented for many years.

DOE, for its part, counters:

> *It is the Secretary of Energy's judgment that scientific and engineering knowledge on issues relevant to disposition of high-level waste and spent nuclear fuel has advanced dramatically over the twenty years since the Yucca Mountain project was initiated... Future proposals for the disposition of such materials should thus be based on a comprehensive and careful evaluation of options supported by that knowledge, as well as other relevant factors, including the ability to secure broad public support...*[1]

In this context, a "Blue Ribbon Commission on America's Nuclear Future" has been assembled and has been asked to provide recommendations to policymakers by early 2012. While it might have been preferable to have received this panel's final recommendations before the present consideration as well as to have received more detailed information regarding the advances in "scientific and engineering knowledge on issues relevant to disposition of high-level waste and spent nuclear fuel" that DOE believes necessitate a change in policy, it is certainly appropriate for the Executive Branch to propose modifications to policies reflected in the NWPA. However,

[1] U.S. Department of Energy's Motion to Withdraw (March 3, 2010).

I agree with the Board's position that *implementing* such a change clearly requires Congressional action.

Nevertheless, a decision to withdraw an application is not the same as a decision to alter national policy, even though withdrawing an application *may*, in certain circumstances, have policy implications. I believe it essential that these two concepts not be confused. The NRC is a regulatory agency and, in my opinion, the NRC should have no role in supporting or opposing DOE's policy views. The NRC's role is to evaluate any application DOE submits to it in accordance with the requirements set by law without excursions into national policy.

My reading of the NWPA is that it directs the NRC to review DOE's application using the same laws and procedures the agency would use in considering any license application. I believe this requirement is central to consideration of this matter. The request by DOE—or any other applicant—to withdraw an application is at its base an administrative request. The NRC's normal procedural treatment—clear from our case law—is to grant an applicant's motion to withdraw. Divorced from the policy issues at play in this matter (as is appropriate for NRC's role as an independent regulator), I see no choice but to treat DOE's motion to withdraw like any other.

One question remains: What would be the result should DOE's application be withdrawn? I believe we would still be within the process Congress established in the NWPA though we would have moved back a step. We still would have Congress' joint resolution which designated the Yucca Mountain site as the site under consideration, but we would not have an application submitted by DOE. In effect, the proceeding would have reverted to pre-application status.

It must be borne in mind that while Congress has provided some guidance by altering the funding currently available for the Yucca Mountain program, it has not reversed the NWPA. As a result, the process ordered by Congress remains the law under which the NRC must operate. As is appropriate with all matters of national policy, Congress will and must have the final and definitive word on how we, as a nation, will manage our high-level radioactive waste.

Rob McKenna
ATTORNEY GENERAL OF WASHINGTON
Ecology Division
2425 Bristol Court SW 2nd Floor • Olympia WA 98502
PO Box 40117 • Olympia WA 98504-0117 • (360) 586-6770

September 12, 2011

Via Email and U.S. Mail

Charles E. Mullins
John F. Cordes, Jr.
Jeremy M. Suttenberg
Office of the General Counsel
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

RE: ***In Re Aiken County, et al***
U.S. COA, D.C. Circuit No. 11-1271

Dear Counsel:

We are aware that on September 9, 2011, the Nuclear Regulatory Commission (NRC) issued a Memorandum and Order (Order) in the matter of U.S. Department of Energy (High-Level Waste Repository), Docket No. 63-001-HLW. On the same day, you filed the Order with the court in the instant matter, through a pleading entitled "Underlying Decision in Case."

The Order is contradictory. As we understand the NRC's Internal Commission Procedures, an NRC split vote that fails to affirm or reverse the Atomic Safety Licensing Board's (ASLB) June 29, 2010 decision would leave the denial of DOE's motion to withdraw intact. Therefore, the licensing proceeding should continue. The Order, however, directs the ASLB to, "by the close of the current fiscal year, complete all necessary and appropriate case management activities, *including disposal of all matters currently pending before it*...," as if NRC had reversed the ASLB's decision. (Emphasis added.)

Because you apparently represent that the Order in some way relates to the joint mandamus petition, we request that you clarify the scope of the Order's directive. Specifically, we request that you confirm whether the directive commanding the ASLB to complete "disposal of all matters currently pending before [the ASLB]" by the end of this month directs the ASLB to issue

an "initial decision" with respect to the DOE license application as prescribed by 10 C.F.R. § 2.713 and identified in 10 C.F.R. Part 2, Appendix D, as occurring on day 955. If the directive does not so direct the ASLB, we ask that you confirm that fact.

In addition, the Order is silent as to the NRC's intended future acts. We request that you confirm whether the NRC intends to make a "final decision approving or disapproving issuance of a construction authorization" for DOE as called for in 42 U.S.C. § 10134(d), and if so, when it plans on making that decision.

Because the Order directs the ASLB to complete an action by the end of the current calendar month, we request that you respond by Thursday, September 15. Thank you for your cooperation.

Sincerely,

ANDREW A. FITZ
Senior Counsel
(360) 586-6752
Attorney for State of Washington
signing on behalf of all Petitioners

AAF:dmm
cc: Martin G. Malsch
Charles J. Fitzpatrick
John W. Lawrence

Meeting of
The Blue Ribbon Commission on America's Nuclear Future (BRC)
In cooperation with
The Western Governors' Association (WGA)

September 13, 2011
Embassy Suites Hotel, 1420 Stout Street, Denver, *CO*

7:45 a.m. Registration

8:15 a.m. **Welcome and Introductions** Moderator
- BRC Welcome/Introduction (BRC Commissioner)
- WGA Welcome/Introduction: Pam Inmann, WGA Executive Director
- Meeting purpose and logistics (Moderator)

8:30 a.m. **The Blue Ribbon Commission Draft Report**: Key Recommendations
John Kotek, BRC Staff Director

9:00 a.m. **Implementation Guidelines for a Reformulated Nuclear Waste Program**
- Introduction: Jennifer Salisbury, WGA.
- An *integrated national waste management strategy addressing principles of fairness and equity: Barbara Byron, WGA/Western Interstate Energy Board (WIEB), High Level Waste (HLW) Committee*
- *Specific authorities and processes regarding federal agency interactions with prospective host states: Robert Halstead, WGA/WIEB HLW Committee*
- *System design for cross-country transportation: Ken Niles, WGA/WIEB HLW Committee*

9:45 a.m. **Break**

10:00 a.m. **Individual state, local and tribal and NGO reactions to the BRC draft**
1. States:
- Utah: John Pearce, General Counsel, Governor Gary Herbert
- Nevada: Joseph Strolin, Director, Nevada Agency for Nuclear Projects
- Washington: Suzanne Dahl, Washington Department of Ecology, Section Manager, Nuclear Waste Program
- Idaho: Susan Burke, Idaho National Laboratory Oversight Coordinator

2. Local Government: John Heaton, Former New Mexico State Legislator (Carlsbad, NM)
3. Tribal Government: Gabriel Bohnee (Nez Perce)

4. Non-Governmental Organization: Don Hancock, Southwest Research and Information Center, Albuquerque, New Mexico
5. State Legislators: Sally Jameson (National Council of State Legislators, Executive Committee)

11:30 a.m. **The State Role: A Mini-Forum**

- Earl Potter, Potter & Mills, PA; Counsel for NM-WIPP Relations (1997-2007)
- Geoffrey Fettus, Natural Resources Defense Council
- Richard Moore, P.E., Pronghorn Engineering, Clancy, MT

12:15 p.m. **Lunch** (no host)

1:15 p.m. **Facilitated discussion of Key Questions: All Attendees and Presenters**

a. Opening introductions & brief round-robin to introduce topics of concern.

b. What is your general response to the Commission's Draft Report? Are there any recommendations you particularly liked or disliked? What, if anything, do you think was missed?

c. What specific steps should be taken to improve interactions between the federal government and western states and directly affected tribes and localities in any reformulated program for nuclear waste management? How should these steps apply to the siting of consolidated interim storage facilities and geological disposal facilities, and to the definition of cross-country transportation routes?

3:15 p.m. **Break**

3:30 p.m. **Public Comments**: from those that have signed up*

4:30 p.m. **Meeting Wrap-up**
Moderator summary
John Kotek outlines BRC next steps

4:45 p.m. **Meeting Adjourned**

**Sign-up for public comment by 1:00 pm.*

Meridian Institute
Connecting People to Solve Problems

Blue Ribbon Commission on America's Nuclear Future
Public Forum on Its Draft Report to the Secretary of Energy
Denver, Colorado
September 13, 2011

The Blue Ribbon Commission on America's Nuclear Future (BRC) held the first in a series of public forums to discuss its draft report to the Secretary of Energy. The meeting took place in Denver, Colorado on September 13, 2011. The purpose of the forum was to provide an opportunity for interested and affected parties to comment on the BRC's draft report. The BRC was formed by the Secretary of Energy at the request of the President to conduct a comprehensive review of policies for managing the back end of the nuclear fuel cycle and recommend a new plan. The draft report highlights the Commission's findings and conclusions to date and articulates a preliminary set of consensus recommendations for public review and input.

During the forum, participants joined a series of breakout sessions to discuss the report's recommendations in more detail. Below is a summary of the highlights from those discussions.

Feedback on the Draft Report

Many participants expressed the sentiment that the report acknowledged and responded to a number of key issues that need to be addressed.

- *Values in the Siting Process:* Many participants supported the notion that all siting processes need to be based on local consent of the host community to receive nuclear waste, on scientific concerns rather than political considerations, and on better cooperation between federal and state/local officials.
- *Addressing Lack of Trust Among Parties:* Several participants noted the report takes important steps to addressing the mistrust that exists between the federal government, state/local/tribal governments, and citizens regarding nuclear waste siting. Additional clarity and transparency on siting criteria and scientific standards used in determining appropriate disposal sites will further begin to

build trust between the disparate entities involved in disposal siting decisions

- *Agreement on Need for RD&D:* Many participants supported the need to safely dispose of nuclear waste already created articulated in the Executive Summary of the report, whether or not they support the use of nuclear power. To that end, there was widespread support for the BRC's emphasis on research, development, and deployment of technologies to address the nuclear waste issue.

Issues to Be Addressed

Participants raised many issues during the breakout sessions. The following summary attempts to bring together many of these issues into a set of key concerns that the Commission should consider going forward.

- *Questions on Nuclear Power:* A significant minority of participants in the meeting argued that the BRC report assumes that nuclear power production should continue. These participants believe that the best way to reduce nuclear waste is to stop producing it altogether, and they want to understand how that viewpoint will be factored into the Commission's deliberations. Other participants argued that nuclear waste production should be limited until solutions to long-term storage issues are identified. Participants offered a specific recommendation that the BRC report should discuss identifying the purpose of storage first, then based on that determine the best way to dispose of spent fuel (onsite, interim storage, deep geologic storage).
- *Clarifying and Expanding the State Role:* Many participants expressed the need for clearer, more robust roles for states in the siting process. They agreed that States should be engaged early in the siting process, and some argued that the state policing role is key to establishing support among local parties. Participants noted that while the federal government has the role of setting parameters, there are a number of roles that state governments can play in the siting process:
  1. States can play a central role in building partnerships with federal entities and local authorities
  2. State agencies can provide more scientific support to make sound siting decisions
  3. States must play a critical role when there are disagreements within or between communities affected by a specific siting proposal
  4. States that have waste at active facilities should be engaged in finding disposal solutions along with federal authorities

- *More Specificity Needed:* Several participants noted that the report needed more specific guidance on several areas, including:
  1. How transparency and the consent-based approach will be implemented in the context of the NRC licensing process.
  2. The role, functions, and authorities of the new waste management agency proposed in the report.
  3. The meaning of the "consultative role" for local communities identified in the report, as well as the meaning of "affected communities."
  4. A broader discussion of transportation issues, including the need for regulatory reform to manage transport of nuclear waste material, the appropriate mode of transportation (rail vs. truck), development of optimal routing systems, and emergency response training.
  5. Next steps on establishing siting guidelines and protocols
- *Site Suitability and Tribal Lands:* The BRC report does not provide enough detail on using suitability as a significant criterion for siting waste facilities. Some participants were concerned that political and economic considerations may trump site suitability issues in some siting cases. This issue needs to be addressed early in the siting process, and the report should provide some additional guidance to demonstrate how that would be done
- *Tribal Lands Issues:* Some participants suggested that the BRC should recommend that tribal lands be removed from consideration for nuclear waste disposal sites. Some commenters also said if a tribe surrounded by a state is a candidate, that state's governor should have a veto or other authority over the decision.
- *Addressing the Front End of the Nuclear Cycle:* Some participants were disappointed that the report only discussed the back end of the nuclear cycle and asserted that the report should address the front end of the nuclear cycle as well (e.g., disposition of mill tailings and the mining and milling process).
- *Separation of Defense and Utility Waste:* Some participants posited that separating the issue of disposal of spent fuel separately from the question of whether or not to use nuclear power in the future is a good approach, while others suggested the issue of disposal is necessary but not sufficient and the BRC should develop a broader, more strategic approach to the broader issue of nuclear power development. Some participants noted that the disposal of defense nuclear waste

materials could demonstrate the ability to safely dispose of discrete quantities of waste.

Next Steps to Improve Interactions between the Federal Government and Tribes, States, and Localities

Participants offered suggestions for engagement in the broader development of nuclear power policy, including:

- *Review Boards:* Create review boards that include technical experts, local and state government interests, and citizen groups to review siting proposals and empower these boards to make binding recommendations on final siting decisions.
- *Radioactive Literacy:* Education of the general public on the technical capacity for managing nuclear waste is key to building trust among all parties. Both state and federal agencies have a significant role to play in this function. Some participants suggested that a specific agency be given responsibility for this task (possibly DOE or NRC) and partner with state governments to develop programs and activities that build the knowledge base among the public.
- *Expertise Needed at the Local Levels:* Individuals with expert knowledge of nuclear waste disposal issues will be necessary at the local level to foster a robust consent-based decision making structure. Participants suggested that federal entities work with state and local agencies to build such capacity at the local levels.
- *Support for Public Engagement:* Federal and state governments should provide financial and travel support to enable states and state regional groups to participate and engage in the discussion (e.g., WGA efforts to support public participation).
- *Caution Against Changing the Atomic Energy Act:* Some participants suggested that changing the Atomic Energy Act would potentially allow all fifty states to define their own approaches to securing nuclear waste material, which would be a problem. The Atomic Energy Act sets up uniform standards for safety and security for special nuclear material/radiated material. A better option may be to change the Nuclear Waste Policy Act.

Suggestions for Future Regional Workshops

- *Increase Attendance from Public Interest Groups:* Several participants suggested that the participation of individuals from NGOs engaged in the nuclear power discussion was surprisingly low. They recommend that the BRC expand the

invitation list and increase public information about the future workshops to encourage greater attendance by public interest groups and individuals from affected/potentially affected communities.

- ***Responding to Public Comments:*** At future meetings and on the website, explain the process the BRC will use to assess and respond to comments. It was suggested that the BRC incorporate consensus changes into the report and articulate different points of view.
- Question: Will comments /testimony provided between release of draft report and first public meeting be available on BRC website?

September 13, 2011

The Honorable Lee Hamilton
The Honorable Brent Scowcroft
Co-Chairmen
Blue Ribbon Commission on America's Nuclear Future
U.S. Department of Energy
Forrestal Building 7A-257
1000 Independence Avenue, SW
Washington D.C. 20585

Dear Chairmen,

I am writing as Chairman of the Yankee Rowe Spent Fuel Storage & Transportation Community Advisory Board (Rowe CAB) to provide comments on the Blue Ribbon Commission on America's Nuclear Future Draft Report to the Secretary of Energy dated July 29, 2011.

The Rowe CAB was established to enhance open communication, public involvement and education of the decommissioning and spent fuel storage at the former Yankee Atomic Electric Company nuclear power reactor site located in Rowe, Massachusetts. The power plant site has been fully decommissioned and all that remains at the Rowe site today is the Independent Spent Fuel Storage Installation (ISFSI) facility that was constructed to store the spent nuclear fuel (SNF) and Greater-Than-Class-C (GTCC) waste stranded there because of the federal government's failure to fulfill its obligation under the Nuclear Waste Policy Act of 1982 to remove this material beginning in 1998.

I am pleased that the Commission responded to the concerns raised in my May 12, 2010 letter to the BRC Co-Chairs; as well as to our request that the Commission hold a public meeting in Maine and tour the Maine Yankee spent fuel storage site to learn firsthand about the unique circumstances confronting single-unit decommissioned reactor sites – which the Commission's Subcommittee on Transportation & Storage did on August 10, 2010.

As Chairman of the Rowe CAB, I am also encouraged by the several statements and recommendations in the BRC Draft Report that directly address the urgent need to remove the SNF/GTCC waste on a priority basis from permanently shutdown reactor sites such as Yankee Rowe and we urge their adoption in the Commission's final report. In particular, the Commission's conclusion that, "Developing consolidated interim storage capacity would allow the federal government to begin the orderly transfer of spent fuel from reactor sites to safe and secure centralized facilities independent of the schedule for operating a permanent repository. The arguments in favor of consolidated storage are strongest for "stranded" spent fuel from

shutdown plant sites. Stranded fuel should be first in line for transfer to a consolidated facility so that these plant sites can be completely decommissioned and put to other beneficial uses".

The BRC Draft Report correctly states that the continued presence of spent fuel at shutdown reactor sites is problematic and costly. Also that it prevents shutdown sites such as Rowe from being completely decommissioned and reclaimed for economically productive or otherwise desirable uses that would benefit the surrounding communities. Moreover, as the report states, towns such as Rowe and the surrounding communities were never asked about and never contemplated the conversion of the former reactor site into an indefinite long-term storage facility. Concerns also exist that the Rowe site no longer has the capability to remove the spent fuel from the storage canisters for inspection should long-term relicensing related issues potentially emerge that might affect the ability of the federal government to transport the canisters. Accordingly we see the development of a consolidated storage site and removal of these canisters to such as site as an urgent priority matter for the federal government.

The impacts to the shutdown reactor site communities associated with indefinite long term storage at the site, combined with the associated cost considerations outlined in the BRC's draft report, provide a compelling reason as stated in the draft report to remove the SNF/GTCC waste stranded at shutdown reactor sites such as Yankee Rowe as quickly as possible and that these sites be "first in line" for transfer to consolidated interim storage.

The Commission correctly recognizes that it will take time to implement some of the reports important recommendations. Given the uncertainty about how long that will take and the fact that DOE remains responsible for the nuclear waste management activities of the federal government, we very much support immediate adoption of the following specific near-term actions included in the draft report:

- Using existing authority in the NWPA, DOE should begin laying the groundwork for implementing consolidated storage and for improving the overall integration of storage as a planned part of the waste management system without further delay. This effort should include development of the necessary agreements to remove the SNF/GTCC waste from shutdown sites such as Yankee Rowe on a priority basis

- Extensive planning and preparation for transport arrangements will be required even if only the 2,800 metric tons of spent fuel currently being stored at shutdown reactors are slated for initial transfer to consolidated storage. Because this planning needs to involve state, tribal and local officials, the federal government should complete the development of procedures and regulations for providing technical assistance and funds (pursuant to section 180 (c) of the NWPA) for training local and tribal officials in areas traversed by spent fuel shipments, in preparation for movement of spent fuel from shutdown reactor sites to consolidated storage.

In addition, I urge the Commission in its final report to endorse the FY 2012 House Energy & Water Development Committee Report language that directs the DOE, "... to submit, with its fiscal year 2013 budget request, a plan containing options to develop interim storage capacity

that would, as a priority matter, provide a means of consolidating the spent nuclear fuel and other high level waste present at permanently shut-down reactors."

Indefinite long term storage of spent fuel and nuclear waste at single-unit shutdown reactor sites such as Yankee Rowe is unacceptable. Such a situation was never intended as a matter of federal policy or under the provisions of the Nuclear Waste Policy Act. Because the Department of Energy has taken steps to eliminate the long standing federal radioactive waste management program and Yucca Mountain repository license application, the Blue Ribbon Commission final report needs to emphasize as a priority matter the expedited removal of the nuclear waste stranded at former reactor sites that have been decommissioned such as Yankee Rowe to a centralized interim storage facility.

Thank you for your consideration of our comments regarding this important and urgent nuclear waste storage concern.

Sincerely,

Leonard Laffond

Leonard Laffond
Chairman, Yankee Rowe Spent Fuel Storage & Transportation Community Advisory Board

Copy:

U.S. Senator John Kerry
U.S. Senator Scott Brown
Congressman John Olver
Governor Deval Patrick
State Senator Ben Downing
State Representative Gail Cariddi

NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION
Office of Public Affairs Telephone: 301/415-8200
Washington, D.C. 20555-0001
E-mail: opa.resource@nrc.gov Site: www.nrc.gov
Blog: http://public-blog.nrc-gateway.gov

No. 11-172 September 13, 2011

NRC ISSUES FINAL YUCCA MOUNTAIN TECHNICAL REPORT, NEARS CLOSURE OF LICENSING REVIEW

The Nuclear Regulatory Commission has issued the last of three Technical Evaluation Reports (TERs) on the Department of Energy's license application for the Yucca Mountain nuclear waste repository, and is nearing the successful completion of its orderly closure of the licensing review process.

"Technical Evaluation Report on the Content of the U.S. Department of Energy's Yucca Mountain Repository License Application; Administrative and Programmatic Volume," contains the NRC staff's assessment of information DOE provided about a dozen administrative and programmatic areas relating to repository operations. It does not contain any regulatory conclusions about whether DOE's proposal would have satisfied NRC requirements.

Issuance of this TER follows previous volumes on post-closure safety, issued July 21, and pre-closure safety, issued Sept. 1. Together, the three reports represent the staff's primary knowledge management records of its technical review of the DOE license application.

All three TERs are available on the NRC website's Yucca Mountain page.

In addition to the TERs, the NRC is on schedule to complete the orderly closure of the Yucca Mountain Program by the end of the fiscal year on Sept. 30. The close-out efforts include:

- The NRC's Office of Nuclear Material Safety and Safeguards (NMSS) and its contractor, the Center for Nuclear Waste Regulatory Analyses, have developed 46 reports intended to capture important technical and regulatory information, insights, and lessons learned from more than 25 years of work during the pre-licensing and licensing phases of the Yucca Mountain Program. The reports cover scientific and engineering topics such as lava flow cooling processes, corrosion of Alloy 22 and titanium drip shield materials, and interactions between magma and waste containers.

- The NRC, through the General Services Administration, has terminated its lease for the Las Vegas Hearing Facility, effective Sept. 30. The facility was designed to house the adjudicatory hearings on the Yucca Mountain application. The hearing room has been dismantled, its computer and video equipment are being transferred to other NRC or federal government locations or donated to local schools, and the facility will be returned to the landlord in a "broom-clean" condition by Sept. 30.

- The NRC's Atomic Safety and Licensing Board terminated operation of the Licensing Support Network, an online database of documents related to the Yucca Mountain hearing, on Aug. 5. As of that date, each of the parties to the hearing are responsible for maintaining their own documents, and they were directed to submit their LSN document collections to the NRC Office of the Secretary on approved optical storage media. The LSN, including a contract with AT&T, will be fully decommissioned by Sept. 30.

- On Sept. 9, the Commission declared itself evenly divided on whether to take the affirmative action of overturning or upholding the ASLB's June 2010 ruling on DOE's motion to withdraw its application, and directed the ASLB to "complete all necessary and appropriate case management activities, including disposal of all matters currently pending before it and comprehensively documenting the full history of the adjudicatory proceeding," by Sept. 30.

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UNITED STATES
NUCLEAR WASTE TECHNICAL REVIEW BOARD
2300 Clarendon Boulevard, Suite 1300
Arlington, VA 22201

Agenda

Fall 2011 Board Meeting

Little America Hotel
500 South Main Street
Salt Lake City, Utah
801-596-5700

September 13, 2011

8:00 – 8:15 am	***Call To Order (Chairman Garrick)***
8:15 – 8:30 am	***Welcome from the Salt Lake City Government***
	The Honorable Ralph Becker Mayor of Salt Lake City
8:30 – 9:00 am	***Preservation of Yucca Mountain Project Documents***
	John Montgomery Site Manager Legacy Management Business Center Office of Legacy Management U.S. Department of Energy
9:00 – 9:20 am	***Questions and Answers***
9:20 – 9:50 am	***Overview of the DOE-NE Used Nuclear Fuel Disposition Program***
	William Boyle Director Office of Used Fuel Disposition Research and Development Office of Nuclear Energy U.S. Department of Energy

9:50 - 10:20 am	***Questions and Answers***
10:20 – 10:35 am	***Break***
10:35 – 11:20 am	***Basis for Identification of Disposal Options for Research and Development***
	Peter Swift National Technical Director Used Fuel Disposition Campaign Sandia National Laboratories
11:20 – 11:45 am	***Questions and Answers***
11:45 – 1:00 pm	***Lunch***
1:00 – 1:45 am	***Used Nuclear Fuel Disposition R&D Roadmap***
	Mark Nutt Deputy National Technology Director Used Fuel Cycle Campaign Argonne National Laboratory
1:45 – 2:10 pm	***Questions and Answers***
2:10 – 3:10 pm	***Generic Natural System and EBS Evaluation***
	Discrete Fracture Network Modeling
	Scott Painter Computational Earth Sciences Group Los Alamos National Laboratory
	R&D Activities Supporting Disposal in Clay/Shale Repositories
	Jens Birkholzer Technical Lead for International Activities Used Fuel Disposition Campaign Lawrence Berkeley National Laboratory
3:10 – 3:40 pm	***Questions and Answers***
3:40 – 3:55 pm	***Break***

3:55 – 4:30 pm	***Used Fuel R&D and Alternatives to Gather Data***
	Brady Hanson Staff Scientist and Used Fuel Project Manager Pacific Northwest National Laboratory
4:30 – 5:00 pm	***Questions and Answers***
5:00 – 5:30 pm	***Public Comments***
5:30 pm	***Adjourn***

September 14, 2011

8:00 – 8:15 am	***Call To Order (Chairman Garrick)***
8:15 – 9:00 am	***Transportation R&D and Long-term Storage Engineering Analysis***
	Paul McConnell Transportation Team Leader Used Fuel Disposition Campaign Sandia National Laboratories
	John Wagner Group Leader for Design, Safety, and Simulation Integration Reactor and Nuclear Systems Division Oak Ridge National Laboratory
9:00 – 9:30 am	***Questions and Answers***
9:30 – 9:45 am	***Break***
9:45 – 11:15 am	***Presentation on Draft Blue Ribbon Commission Report***
	John Kotek Executive Director Blue Ribbon Commission on the America's Nuclear Future
	Ward Sproat Principal Vice President and Project Director Bechtel Corporation Former Director Office of Civilian Radioactive Waste Management U.S. Department of Energy

11:15 – 11:45 am	***Questions and Answers***
11:45 – 1:15 pm	***Lunch***
1:15 – 2:15 pm	***Extended Storage Collaboration Program (ESCP)***
	John Kessler Manager High-Level Waste and Spent Fuel Management Program Electric Power Research Institute
	Adam Levin Director Spent Fuel and Decomissioning Exelon Corporation
	James Rubenstone Chief Repository Site Branch Office of Nuclear Materials Safety and Safeguards U.S. Nuclear Regulatory Commission
2:15 – 2:45 pm	***Questions and Answers***
2:45 – 3:00 pm	***Break***
3:00 – 4:15 pm	***Implications for Waste Management of Using MOX Fuel***
	Wolfgang Faber Head of Core Design, Fuel Technology, and Fuel Disposal E.On-Kernkraft
	Patrice Fortier Trans Nuclear Corporation
	Daniel Stout Senior Manager Nuclear Generation Development and Construction Tennessee Valley Authority
4:15 – 5:00 pm	***Questions and Answers***
5:00 – 5:30 pm	***Public Comments***
5:30 pm	***Adjourn***

U.S. Nuclear Waste Technical Review Board

THE IMPORTANCE OF QUANTIFYING THE RADIATION SOURCE TERM IN A GEOLOGIC REPOSITORY

The radiation "source term" sets the boundary condition for assessing the containment capability of the undisturbed geology in a repository system. Knowing the source term accurately is crucial for properly assessing the performance of a repository and the potential radiation dose to the public.

Because of the complexity of the source term, designers of geologic repositories have preferred making "bounding" or conservative assumptions to quantify the source term. Comprehensive research and analysis on site-specific factors affecting the radiation source term could result in a better fundamental understanding of the realistic performance characteristics of a proposed repository, thus reducing uncertainties and potentially resulting in a less complex and less costly repository design.

Geologic repositories for the disposal of high-activity radioactive waste use a combination of natural and engineered barriers to isolate radionuclides from the accessible environment. *Engineered* components of a geologic repository system include the waste forms (e.g., spent nuclear fuel and high-level radioactive waste) and containers for the waste forms, as well as any shielding, packing, and other absorbent materials immediately surrounding individual waste containers. Water-diversion devices (e.g., drip shields) also may be part of an engineered system in a geologic repository. *Natural* components of a geologic repository system include the geology in which the waste forms and containers will be emplaced and the geology below and overlying the host rock. The geology in the immediate vicinity of the emplaced waste is disturbed by the decay heat of the waste and by excavation associated with constructing the repository. The geology farther away from the emplaced waste is undisturbed by these factors. Radionuclides from the waste forms eventually will be transported—primarily by water—through the engineered system and the disturbed geology into the undisturbed natural system below the repository. From this point, the undisturbed geology will determine when and at what levels the radionuclides ultimately will emerge in the accessible environment.

The *radiation source term* must be confined by the undisturbed geologic environment to meet repository performance goals. A technical definition of the radiation source term is: the mass flow rates and the chemical and physical forms of radionuclides that enter the undisturbed geologic environment from the disturbed geology as a function of time. Depending on which radionuclides are in the waste that is emplaced in the repository, the radiation source term may exist for hundreds of thousands or even millions of years before all radionuclides decay to inconsequential amounts.

Quantifying the radiation source term involves more than determining the inventory of radionuclides in the waste form, it also is necessary to understand how the radionuclides interact with environments affected by degrading components of the engineered system and by components of the disturbed natural system.

Scientific studies have confirmed that engineered barriers such as robust (i.e., thick-walled and corrosion-resistant) waste containers and devices that protect and prevent or delay water from contacting the waste containers (e.g., drip shields and backfill materials) are very important in reducing uncertainties related to the performance of the natural system. In addition, corrosion products from degrading waste forms and waste containers together with their interactions with rock materials and other near-field debris can inhibit water flow and alter water chemistry. Engineered features that affect environmental conditions surrounding the waste containers can be critical factors in mobilization of the waste and therefore in quantifying the radiation source term.

With all these factors to consider, quantifying the radiation source term realistically is not an easy task. Designers of geologic repositories have therefore preferred using alternative approaches in demonstrating compliance with repository performance requirements, such as making "bounding" or conservative assumptions about the effects on the radiation source term of events and processes in the engineered barrier system or in the disturbed geology. Although the bounding approach may facilitate the demonstration of compliance with regulations, it can compromise fundamental understanding of the uncertainties associated with the performance of a repository.

More-comprehensive research and analysis than has been performed in the past on site-specific radiation source-term factors could result in a more realistic understanding of how a repository might perform, thus increasing confidence in repository performance estimates. This improved understanding also could reduce the costs and complexity of repository designs.

Sustainable Fuel Cycle
TASK FORCE
www.sustainablefuelcycle.com

Immediate Release
September 15, 2011

26 Organizations Call for Resumption of Yucca Mountain Review

Washington DC -- More than two dozen prominent national, state, local and Native American organizations have written to the U.S. Senate expressing their support for funding for the resumption of the Yucca Mountain Project review by the U.S. Nuclear Regulatory Commission (NRC) and related licensing-support activities at the U.S. Department of Energy (DOE).

The 26 organizations -- which comprise a cross-section of energy consumers, regulators, elected officials, Native Americans and community entities and businesses -- include the National Association of Regulatory Utility Commissioners, U.S. Chamber of Commerce, Prairie Island Indian Community, U.S. Nuclear Infrastructure Council, Institute for 21st Century Energy, Nuclear Waste Strategy Coalition, U.S. Nuclear Energy Foundation and the Sustainable Fuel Cycle Task Force. Citing recent findings by the Nuclear Regulatory Commission, Blue Ribbon Commission on America's Nuclear Future and the Senate Appropriations Committee as well as a July vote by the U.S. House of Representatives to restore funding for the review, the letter states that "we agree that the need for the Federal government to meet its responsibility for commercial spent fuel and defense waste management under the Nuclear Waste Policy Act is a matter of urgency -- and that further delay is only exacerbating taxpayer liability and diminishing confidence in resolution of this national concern.

"It is increasingly clear that termination of the Yucca Mountain license application without clear legal authority and without an alternative plan has proven to be premature and unwise as well as deleterious generally to the nation's energy independence, economic competitiveness and environmental progress.

"To this end, funding to facilitate resumption of the Yucca Mountain review in FY2012 - a site which heretofore has been found to be safe and viable and which is the highest confidence option currently available-- is strongly warranted."

Further Information:
Edward Davis
Sustainable Fuel Cycle Task Force
202-403-7711
edavis@sustainablefuelcycle.com

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Text of the Letter Follows

Sustainable Fuel Cycle
TASK FORCE

www.sustainablefuelcycle.com

September 15, 2011

United States Senate
U.S. Capitol
Washington, DC 20510

To the United States Senate:

The undersigned organizations, which collectively represent a national cross-section of energy consumers, regulators, elected officials, Native Americans, community organizations and businesses, are writing to advise you of our strong support for funding in the FY2012 Energy and Water Development appropriations bill for the resumption of the Yucca Mountain Project review by the U.S. Nuclear Regulatory Commission (NRC) and related licensing-support activities at the U.S. Department of Energy (DOE).

As you know, on July 15, the House passed the FY2012 Energy and Water Appropriations bill, which provides a total of $20 million to the NRC for the continuation of the license review for the Yucca Mountain Project (reached through the bipartisan approval of a floor amendment doubling the original funding mark of $10 million by a resounding vote of 297-130) and $25 million to DOE for continuing its activities towards completing the Yucca Mountain licensing application.

In addition, a recent House Science, Space, and Technology Committee review of the Yucca Mountain Safety Evaluation Report (Volume III) found the licensing application "complies with applicable NRC safety requirements, including those related to human health and groundwater protection, and the specific performance objectives called for in NRC regulations for disposal of high-level radioactive wastes at Yucca Mountain." Just this past week, on September 9, the NRC issued a decision that allows the Construction Authorization Board's June 29, 2010 denial of the DOE motion to withdraw its Yucca Mountain license application to stand.

And although no funding was provided in the Senate Appropriations Committee's FY2012 Energy and Water Appropriations Bill, as approved on September 7, its report states that the Committee "is extremely concerned that the United States continues to accumulate spent fuel from nuclear reactors without a comprehensive plan to collect the fuel or dispose of it safely, and as a result faces a $15,400,000,000 liability by 2020" – and that "the Committee supports taking near- and mid-term steps that can begin without new legislation and which provide value regardless of the ultimate policy the United States adopts."

Moreover, on July 29, in a draft report to Energy Secretary Steven Chu, the Blue Ribbon Commission on America's Nuclear Future (BRC) stressed their "shared sense of urgency" with respect to addressing the back-end of the fuel cycle noting that "this nation's failure to come to grips with the nuclear waste issue has already proved damaging and costly and it will be more damaging and more costly the longer it continues." The BRC draft report concludes that "deep geologic disposal capacity is an essential component of a comprehensive nuclear waste management system" while calling for "prompt efforts to develop one or more geological disposal facilities."

The BRC further adds: 'The recent decision by the Administration to attempt to withdraw the Yucca Mountain license application has further diminished confidence in the government's ability to provide a safe and timely solution for the disposal of spent fuel and HLWs [High Level Waste]"... and ..."it is clear to the Commission that waste cleanup commitments were made to states and communities across the United States, and to the nuclear utility industry and its ratepayers and shareholders, that have not been upheld. The decision to suspend work on the repository has left all of these parties wondering, not for the first time, if the federal government will ever deliver on its promises."

As further stipulated by the BRC, the continued spent fuel management stalemate is "damaging to prospects for maintaining a potentially important energy supply option for the future, damaging to state–federal relations and public confidence in the federal government's competence, and damaging to America's standing in the world— not only as a source of nuclear technology and policy expertise but as a leader on global issues of nuclear safety, non-proliferation, and security. Continued stalemate is also costly—to utility ratepayers, to communities that have become unwilling hosts of long-term nuclear waste storage facilities, and to U.S. taxpayers who face mounting liabilities, already running into billions of dollars, as a result of the failure by both the executive and legislative branches to meet federal waste management commitments."

We agree that the need for the Federal government to meet its responsibility for commercial spent fuel and defense waste management under the Nuclear Waste Policy Act is a matter of urgency -- and that further delay is only exacerbating taxpayer liability and diminishing confidence in resolution of this national concern. It is increasingly clear that termination of the Yucca Mountain license application without clear legal authority and without an alternative plan has proven to be premature and unwise as well as deleterious generally to the nation's energy independence, economic competitiveness and environmental progress. To this end, funding to facilitate resumption of the Yucca Mountain review in FY2012 – a site which heretofore has been found to be safe and viable and which is the highest confidence option currently available-- is strongly warranted.

We hope that these views will be helpful in the full Senate consideration of the final FY2012 Energy and Water Development Appropriations.

Please note that – while these opinions represent the consensus viewpoints of the undersigned organization -- they do not necessarily represent the specific views of every individual member of these organizations.

Sincerely,

National Association of Regulatory Utility Commissioners

U.S. Chamber of Commerce

U.S. Nuclear Infrastructure Council

U.S. Nuclear Energy Foundation

Partnership for Science & Technology

Citizens for Nuclear Technology Awareness

Citizen Outreach

Greater Aiken
Chamber of Commerce

Fuel Cycle Science Panel

Idaho Falls Chamber of Commerce

Nancy Black, Vice Chair, Mineral County Commission (NV)

Lander County Commission (NV)

Lincoln County Commission (NV)

Sustainable Fuel Cycle Task Force

Prairie Island Indian Community

Institute for 21st Century Energy

Nuclear Waste Strategy Coalition

Nuclear Fuels Reprocessing Coalition

SRS Community Reuse
Organization

Tri-City Development Council

Economic Development Partnership –
Aiken & Edgefield Counties

Coalition 21

Nevadans for Carbon Free Energy

Gary Hollis, Chair, Nye County Commission (NV)

Churchill County Commission (NV)

Esmeralda County Commission (NV)

September 2011

GAO
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Highlights

Highlights of GAO-11-847, a report to the Majority Leader, U.S. Senate

YUCCA MOUNTAIN

Information on Alternative Uses of the Site and Related Challenges

Why GAO Did This Study

The future of the Yucca Mountain project in Nevada—originally designated for permanent storage of nuclear waste—is uncertain. Since 1983, the Department of Energy (DOE) has spent billions of dollars to evaluate the Yucca Mountain site for potential use as a nuclear waste repository. In February 2010, the President proposed eliminating funding for the project, and in March 2010, DOE filed a motion to withdraw its license application. Stakeholders—federal officials, state and local government officials, private companies, and others—have expressed interest in whether the site's characteristics are suitable for alternative uses.

GAO was asked to examine alternative uses for the Yucca Mountain site. This report examines: (1) the characteristics of the Yucca Mountain site; (2) stakeholders' proposed alternative uses, and experts' evaluations of them; and (3) challenges, if any, in pursuing alternative uses. We selected a nonprobability sample of experts that included experts affiliated with nationally recognized research organizations, universities, and national laboratories, and that did not represent or benefit from any of the stakeholders' proposed alternative uses of the site. Using a data collection instrument, we elicited comments from these experts on stakeholders' proposed uses. The alternative uses discussed in this report reflect the alternative uses these stakeholders proposed; they may not reflect all potential uses of the site. This report contains no recommendations. Interior generally agreed with our findings, while DOE, the U.S. Air Force, and NRC neither agreed nor disagreed.

View GAO-11-847 or key components.
For more information, contact Frank Rusco at (202) 512-3841 or ruscof@gao.gov.

What GAO Found

The Yucca Mountain site has several geographical, structural, and geophysical characteristics that may be relevant in considering potential alternative uses. Geographically, the site spans a large land area in a remote part of Nevada and partially includes some of the lands of two adjacent highly-secure national security sites—the Air Force's Nevada Test and Training Range and DOE's Nevada National Security Site. The site's lands were historically under the control of three federal agencies: DOE, the Department of Defense, and the Bureau of Land Management (BLM) under the Department of the Interior. The most notable structural features include two large tunnels—one about 5 miles long and 25 feet in diameter, and another 2 miles long that branches off of the main tunnel. Geophysically, the Yucca Mountain area is semiarid and has little surface water; is comprised of strong, very low permeability volcanic rock; and is located in an area with low levels of seismic activity.

Stakeholders we contacted proposed 30 alternative uses of the Yucca Mountain site; however, there was no broad consensus regarding the benefits and challenges of these uses among the experts we consulted. The alternative uses span five broad categories: (1) nuclear or radiological uses, such as locating a nuclear reprocessing complex at or near the site; (2) defense or homeland security activities, such as testing systems to detect and identify radioactive materials; (3) information technology uses, such as secure electronic data storage; (4) energy development or storage, such as using the site for renewable energy development; and (5) scientific research, such as geology or mining research. While some experts we contacted identified benefits of the site for certain uses, experts also noted that many of these proposed uses would be costly and may face significant challenges. Several experts also noted that Yucca Mountain's characteristics would not be critical to a number of the proposed uses, and that many could be undertaken elsewhere.

Alternative uses of the Yucca Mountain site face a number of legal and administrative challenges. First, DOE's withdrawal of its application to build a repository at Yucca Mountain is subject to continuing legal proceedings, and resolution of these proceedings could preclude or significantly delay alternative uses of the site. Second, potential litigation regarding mining claims may affect alternative uses of the site. Following the 2010 expiration of a land withdrawal order, 35 mining claims were recorded and processed by BLM. Although BLM declared these claims void in August 2011, their legitimacy could be litigated, which could delay or pose challenges to alternative uses of the site. Third, because control of the site is divided among three different federal agencies, potential alternative uses may face challenges related to management of the site's lands. Fourth, potential alternative uses of the site may be limited by national security activities that currently take place on adjacent lands. Fifth, as with any activity, proposed uses of the site will require the user to comply with applicable federal and state regulations.

FINAL AGENDA

MEETING TO INFORM STAKEHOLDER ABOUT

EXTENDED STORAGE AND WASTE CONFIDENCE ACTIVITIES

FOR SPENT FUEL STORAGE AND TRANSPORTATION

SEPTEMBER 28, 2011, 10:00 A.M – 4:00 P.M. (Eastern Daylight Time)

10:00 a.m. – 10:30 a.m.	Check-in *(Security)*
10:30 a.m. – 10:40 a.m.	Ground Rules *[Facilitators]*
10:40 a.m. – 11:00 a.m.	Introduction and opening remarks *[NRC]*
11:00 a.m. – 11:15 a.m.	Overview of regulatory program activities *[NRC]*
11:15 a.m. – 11:45 a.m.	Stakeholder questions and feedback
11:45 a.m. – 1:00 p.m.	Lunch
1:00 p.m. – 1:30 p.m.	Current Waste Confidence Decision (2010) and Staff plans and activities supporting the Waste Confidence Update to reflect long-term storage *[NRC]*
1:30 p.m. – 2:00 p.m.	Stakeholder questions and feedback
2:00 p.m. – 2:20 p.m.	Staff plans and activities related to extended storage regulatory program research *[NRC]*
2:20 p.m. – 2:45 p.m.	Stakeholder questions and feedback
2:45 p.m. – 3:00 p.m.	Break
3:00 p.m. – 3:45 p.m.	Summary Discussions *[Facilitators]*
3:45 p.m. – 4:00 p.m.	Closing Remarks *[NRC]*
4:00 PM	Adjourn

Enclosure

Sustainable Fuel Cycle
TASK FORCE
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Sustainable Fuel Cycle Task Force Science Panel

September 29, 2011

The Honorable Lee H. Hamilton
Co-Chairman
Blue Ribbon Commission on America's Nuclear Future
U.S. Department of Energy
C/O Mr. Timothy A. Frazier
1000 Independence Ave., SW
Washington, DC 20585-1290

The Honorable Brent Scowcroft
Co-Chairman
Blue Ribbon Commission on America's Nuclear Future
U.S. Department of Energy
C/O Mr. Timothy A. Frazier
1000 Independence Ave., SW
Washington, DC 20585-1290

Dear Co-Chairman Hamilton and Co-Chairman Scowcroft:

As you have requested, the Sustainable Fuel Cycle Task Force Science Panel is pleased to make the following input on the July 2011 draft Blue Ribbon Commission (BRC) report.

While we support many of the constructive recommendations in the draft report, e.g. assurance of funding and local community consensus, we are disappointed that the BRC did not recommend the completion of the NRC Yucca Mountain licensing proceeding. We certainly agree with the draft BRC conclusion that geologic disposal capacity is promptly needed and we strongly believe that nation will be in a better position to decide on a path forward if the independent NRC licensing safety process is concluded in an open and transparent manner. Finishing the nearly completed licensing process will allow a comparison of the thoroughly evaluated real Yucca Mountain site (which has taken 30 years of study and $9 Billion) against a hypothetical unknown new site or approach that will likely take many more decades to develop. With this information in hand, a fair comparison can be made that best serves the national needs while respecting state and local concerns. As this is an urgent matter of national importance, we should be seeking to preserve options while we simultaneously seek potentially better options, if such exists and can be implemented in a safe as well as timely and cost effective manner.

Need to Preserve All Alternatives

For the past half century, the United States has undertaken efforts to develop mined geologic disposal facilities to address the ever increasing volumes of high-level nuclear wastes in the country. In the Nuclear Waste Policy Act, Congress found that a national problem had been created by the accumulation of spent nuclear fuel from nuclear reactors, radioactive waste from reprocessing of spent nuclear fuel, and other sources, and set the country on a path to remedy that problem.

Following passage of the Nuclear Waste Policy Act Amendments Act in 1987, Congress set its policy in law and the country focused its efforts on disposing of spent nuclear fuel and high-level radioactive waste in a geologic repository at Yucca Mountain, Nevada. With wastes accumulating at greater rates due to reactor life extensions, and growing interest in advanced reactor technologies, the decision by the Department of Energy to cease the development of that repository and seek an elusive, if not illusionary, better solution is simply not justifiable.

A specific and compelling example of the importance of concluding the NRC's licensing process is the Nuclear Waste Technical Review Board's (NWTRB) endorsement (in their "Technical Advancements and Issues report of June 2011...") of thick unsaturated zones – such as that at Yucca Mountain – as a potential repository environment. Such environments occur throughout the southwest and completion of the NRC's licensing process would greatly expedite evaluation of future repositories in this vast region of our country. In addition, completing the licensing process for Yucca would provide valuable regulatory lessons learned feedback to improve the regulatory process for any possible repository site.

While your report contains numerous valuable recommendations, there is nothing in it that would warrant or justify abandoning a workable policy that was well on its way to achieving the intent of Congress. The creation of the Blue Ribbon Commission was shadowed by an intimation that the science supporting the recommendation and licensing of Yucca Mountain was weak or somehow flawed, in spite of Secretary Chu previously being a signatory to the August 2008 National Laboratory Director's letter on a sustainable energy future urging licensing of the Yucca Mountain repository. Specifically, as Director of Lawrence Berkeley National Laboratory, he was ultimately responsible for some of the most important technical studies of the science of Yucca Mountain. As Secretary of Energy, he requested you to search for a better solution because, in his words, Yucca Mountain "was unworkable."

We believe that it does not matter how one views your recommendations or how the recommendations are packaged, no better solution has been found - there is no "silver bullet". Many of your recommendations bring to mind the earlier work of the Inter-Agency Review Group empanelled by President Carter, the debates that led to the passage of the Nuclear Waste Policy Act and the resulting legislation, and the work of several National Academy of Sciences committees that addressed this issue, most notably, the 2001 study *Disposition of High-Level Waste and Spent Nuclear Fuel: The Continuing Societal and Technical Challenges.*

The policies formulated throughout that time were working, and absent the politicization injected into the program over the past three years, would not only still be working, but would be nearing the accomplishment of a significant milestone directed by law. Starting over, without clearly defined criteria, selecting sites, implementing site characterization programs, and preparing and defending license applications will likely take upwards of twenty plus years to get back to where the Yucca Mountain program is now.

Deep Bore Holes

We are aware that some special interest groups are promoting that our national waste disposal efforts be directed away from mined geologic repositories, e.g. WIPP, Yucca Mountain, Olkiluoto or Forsmark facilities, with efforts placed toward the unproven deep borehole disposal concept. As scientists, who have worked for many decades in this field, we caution against an abrupt shift away from a known disposal concept to a new concept with many unknown unknowns. Although deep borehole disposal has some positive scientific attributes and it is certainly worthy of further scientific study, it is not developed sufficiently to become the primary pathway to meet our national disposal need. A host of scientific and engineering issues (that have already been resolved after decades of international progress on mined geologic repositories) would need to be addressed with at least a decade of deep borehole disposal research and development before that concept could be considered a national path forward approach.

Challenging issues of retrievability, reversibility, deep geologic environmental conditions, and statutory and regulatory requirements would have to be resolved for deep borehole disposal. In addition, if used nuclear fuel is to be disposed of in this method, thousands of tons of already packaged used fuel canisters would have to be cut open and repackaged into smaller packages with a large societal cost of many billions of dollars, health risks, and unknown engineering challenges. For your consideration, we have attached a Swedish paper that addresses some of the issues of the deep borehole disposal concept that have to be adequately addressed.

Your draft report has correctly pointed out that the social political siting challenges are the primary obstacle of selecting a disposal solution. There is no basis to assume that siting a deep borehole disposal facility will be any advancement in that critical area. Some deep borehole studies, e.g. Sandia National Laboratories and MIT, have suggested that most U.S. reactor sites have geologies that might be conducive to deep borehole disposal; however there is no reason to believe that these state and local communities would be supportive of deep borehole disposal at existing reactor sites.

Historical Reality Complications

The fourth and fifth recommendations of your report, that there be prompt efforts to develop one or more geologic disposal facilities, and prompt efforts to develop one or more consolidated interim storage facilities, while desirable, risk repeating history.

Nothing the country has yet undertaken in its attempts to remove wastes from reactor sites can be characterized as prompt, or for that matter successful. Interim storage provisions, as well as provisions for a monitored retrievable storage facility were part of the 1982 Nuclear Waste Policy Act. By statute, construction of a monitored retrievable storage facility could not begin until a license for the construction of a repository had been issued. The interim storage provisions were even more restrictive. The 1987 Amendment to the Act created a Negotiator to attempt to find an entity willing to host a repository or monitored retrievable storage facility at a technically qualified site on reasonable terms; there were no takers even when there was a repository envisioned. Efforts by the Federally designated NWPA Negotiators to obtain a site for interim storage on the Mescalero Apache Indian reservation were achieving some level of progress, until a "not in my backyard" earmark was inserted by a powerful home state U.S. senator, ended DOE's ability to continue that initiative. Similarly, the Private Fuel Storage interim storage facility on the Goshute Indian Reservation was politically derailed by the State of Utah.

It is naive to assume that a willing host would step forward today after observing how readily an administration vacillated and derailed a non-partisan program in the face of political pressure from a single powerful U.S. senator. Moreover, taking your first recommendation literally, that this be a consent base process, starting over would be fraught with opportunities for mischief by those who seek to prevent any program from moving forward. The most prompt method to remove fuel and permanently dispose of spent fuel from shutdown reactors is to just complete Yucca Mountain in accordance with current law.

Regulation Development Complications

Moving forward with a new repository site would also require an entire new suite of regulations, as the existing sets are either non-applicable (Yucca Mountain specific) or not consistent with current thinking on regulating repositories. There is a pattern in the development of U.S. high-level radioactive waste regulations – each time that Pandora's Box has been opened, it has taken longer to close it. The Environmental Protection Agency standard for high-level radioactive waste repositories was remanded in 1987; while it was reinstated for the Waste Isolation Pilot Plant within ten years, the new Yucca Mountain regulation took closer to fifteen.

Three sets of regulations are involved - for siting, implementation, and compliance. How those new regulations could be developed promptly defies comprehension, yet realistically, no first step to implement your recommendations can be taken without the new regulations.

The high-level radioactive waste regulations were changed for Yucca Mountain because Congress recognized that the existing U.S. standards were not appropriate for an unsaturated zone repository, and did not regulate in a manner that would protect those most impacted by the presence of a repository. If, in fact, the U.S. regulations had been appropriate to accommodate a repository in any media, they would not have needed to be changed. The exact situation exists today; should the U.S. decide to pursue borehole or salt disposal, the existing regulations would not be appropriate either. Million-year performance regulations are very difficult to realistically implement as you have acknowledged. Rational alternatives have been suggested, but the Environmental Protection Agency is not likely to lessen a requirement they have promulgated.

Interim Storage is Realistically Linked to Meaningful Repository Progress
Without a timely repository program underway, recommending that the United States proceed promptly to develop one or more consolidated interim storage facilities is likely doomed to fail because potential interim storage hosts would not have confidence that the materials would be removed.

Legislating a program for storage independent of a repository program is simply kicking the can down the road to become a problem for future societies, and is not consistent with policies that have been articulated in this country since 1978. If, in fact, the Blue Ribbon Commission had found a novel solution, there could be cause to welcome your report. Instead there is nothing new.

There should be a priority for stranded fuel at shutdown reactors; unfortunately, the best opportunity to move this fuel was associated with a repository at Yucca Mountain. There is no basis to conclude that any new program could result in that fuel being moved sooner than if it were moved to a fuel aging facility at Yucca Mountain.

The Draft Report notes that even with timely development of consolidated storage facilities, a large quantity of spent fuel will remain at reactor sites for many decades. The report does not address the fact that important criteria for selecting reactor sites, which included the ready availability of water that could be used without significant impact to the surrounding ecosystems, and proximity to transmission lines, are not necessarily ideal for long term surface storage of spent nuclear fuel. It is also true that reactor sites that could once be described as rural are becoming urban as cities expand.

National Needs vs. Consensus

It is not our intention to argue against your recommendation for a consent-based program, that is, in the sense that affected communities have an opportunity to decide whether to accept facility siting decisions and retain significant local control. Rather, the two parts of this recommendation are very different. The Blue Ribbon Commission received testimony of local community consent that apparently was not considered seriously in developing the draft report recommendations. Ignoring the true local community and choosing instead to respond only to population centers 100 miles and 250 miles from Yucca Mountain is wrong. In addition, this recommended approach does not consider the needs of populations beyond the host state borders that are also impacted by the lack of government removal of wastes from their communities. All these communities also should have a vote in deciding how to dispose of the wastes. And for Yucca they did. Their representatives voted to pass the laws setting the U.S. on the path to disposal at Yucca Mountain. The Nuclear Waste Policy Act concept of the opportunity for a state to disapprove the site recommendation was carefully crafted to address the potential for lack of consent at the state level. The requirement for a super-majority to override the notice of disapproval was as fair as Congress could make this difficult decision. The Nuclear Waste Policy Act is just that – a law that Congress passed that included a fair consideration of state and national rights, and the amendment that selected Yucca Mountain as the single site to be studied is also a law.

As for the true local community, once the Yucca Mountain site was designated, Nye County resolved to constructively engage in the federal process to construct and operate a repository in a safe and environmentally protective manner. This consent-based process has been subject to a rigorous scientific and technical process.

The second part of your recommendation for a consent-based program is that affected communities should retain significant local control and it is perhaps the most meaningful and potentially most useful recommendation of your report. Stakeholders should have an opportunity to understand key decisions and engage the process in a meaningful way, and key decisions should be revisited and modified as necessary along the way rather than being pre-determined. This is exactly the intent of the Safety Case approach that is being followed by most other countries. Nye County's enduring interest and support for the Project flies in the face of any notion that Yucca's closest citizens have been universally opposed.

Legal & Ethical Needs

There is another aspect of law that bears on this issue as well; the contracts that the Department of Energy signed with the utilities as a result of the passage of the Nuclear Waste Policy Act are legally binding. Today, the government is in default on those contracts and U.S. citizens are being taxed to pay the damages for the government's failure to follow the law.

These costs are a wasteful societal cost because the users of the nuclear generated electricity have already paid for its disposal.

Failure to follow existing law and instead recommend replacing it with a nebulous unknown concept for an unachievable future state burdens future generations in a way that would be abhorrent to the crafters of the Nuclear Waste Policy Act, and would force these future generations to continue paying for consequences of the government's current failure to follow the law.

Conclusions

We appreciate the major effort that has gone into the preparation of this comprehensive draft. And, we recognize that the BRC's "charter" dismissed it from commenting on Yucca Mountain as a repository. Nevertheless, while the draft explicitly noted reasons why Yucca Mountain has proven to be politically controversial, it failed to inform readers in the body of the text or barely mentioned the facts that: a) Yucca Mountain was ranked first in DOE's assessments of the three repository finalists prior to passage of the 1987 amendments; b) in 2002, Congress chose Yucca Mountain as the Nation's first repository; c) this site was endorsed by the Directors of all ten National Laboratories in August 2008, including Dr. Chu then head of Lawrence Berkeley National Laboratory; an d) the site has the approval of Nye County, Nevada thereby fulfilling a key recommendation of the BRC's report that a prospective site be endorsed by the hosting community.

At the minimum, we strongly recommend that the BRC's final report consider and preserve *all* alternatives and recommend finishing the NRC's nearly completed licensing of the Yucca Mountain repository.

With this important information in hand, the nation can consider the BRC's other options and make the best decisions for implementing a successful nuclear waste management for our nation's future.

Sincerely,
Science Panel

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Ruth Weiner, Ph.D.

Isaac Winograd, Ph.D.

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LBP-11-24

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Thomas S. Moore, Chairman
Paul S. Ryerson
Richard E. Wardwell

In the Matter of	Docket No. 63-001-HLW
U.S. DEPARTMENT OF ENERGY	ASLBP No. 09-892-HLW-CAB04
(High Level Waste Repository)	September 30, 2011

MEMORANDUM AND ORDER
(Suspending Adjudicatory Proceeding)

This adjudicatory proceeding concerns the application of the Department of Energy (DOE) for authorization to construct a national high-level nuclear waste repository at Yucca Mountain, Nevada.

On March 3, 2010, DOE moved to withdraw the application with prejudice.[1] On June 29, 2010, this Board denied the motion on the ground that the Nuclear Waste Policy Act of 1982, as amended, does not permit DOE to withdraw the application.[2] On June 30, 2010, the Secretary of the Commission invited participants to submit briefs on an expedited schedule as to whether it should review, and reverse or uphold, the Board's decision.[3]

[1] U.S. Department of Energy's Motion to Withdraw (Mar. 3, 2010).

[2] LBP-10-11, 71 NRC __, __ (slip op. at 20) (June 29, 2010).

[3] Secretary Order (June 30, 2010) at 1 (unpublished).

On September 9, 2011, the Commission announced that it was evenly divided on whether to take the affirmative action of overturning or upholding the Board's decision.[4] The Board's decision to deny DOE's motion to withdraw, LBP-10-11, therefore stands.

The seven-year history of this adjudicatory proceeding has involved the work of six Licensing Boards in three phases: (1) preliminary document discovery and case management matters before the Pre-License Application Presiding Officer Board and the Advisory Pre-License Application Presiding Officer Board; (2) consideration of initial petitions and identification of participants and admitted contentions by three separate Construction Authorization Boards (i.e., CAB-01, CAB-02, CAB-03); and (3) consideration of additional proffered contentions, new petitions, and various case management matters by this Board (the fourth Construction Authorization Board — CAB-04). The full history of the adjudicatory proceeding is contained in the principal substantive and procedural rulings of the six Licensing Boards and of the Commission, as well as in certain key pleadings of the parties, as set forth in the attached Appendix.

As of this date, fourteen parties have been permitted to intervene in the proceeding: (1) the State of Nevada; (2) the Nuclear Energy Institute; (3) Nye County, Nevada; (4) the four Nevada Counties of Churchill, Esmeralda, Lander, and Mineral (jointly); (5) the State of California; (6) Clark County, Nevada; (7) the County of Inyo, California; (8) White Pine County, Nevada; (9) the Joint Timbisha Shoshone Tribal Group; (9) the Native Community Action Council; (10) the State of Washington; (11) the State of South Carolina; (12) Aiken County, South Carolina; (13) the Prairie Island Indian Community; and (14) the National Association of Regulatory Utility Commissioners. Two Nevada counties — Eureka County and Lincoln County — have been permitted to participate as interested governmental bodies pursuant to 10 C.F.R. § 2.315(c), and the Florida Public Service Commission was permitted to participate as

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[4] CLI-11-07, 74 NRC __, __ (slip op. at 1) (Sept. 9, 2011).

amicus curiae. Two hundred eighty-eight admitted contentions are pending. They would be ripe for adjudication at evidentiary hearings after deposition discovery, issuance by the NRC Staff of applicable Safety Evaluation Reports and (in the case of contentions arising under the National Environmental Policy Act) any necessary supplementation by the NRC Staff of DOE's Environmental Impact Statement.

Although we have been informed that the agency has current appropriated Fiscal Year 2011 Nuclear Waste Funds (NWFs) that could be carried over into the next fiscal year, there are no Full-Time Equivalent (FTE) positions (i.e., federal employee positions) requested in the President's Fiscal Year 2012 Budget for Yucca Mountain High-Level Waste activities. Therefore, because both future appropriated NWF dollars and FTEs for this proceeding are uncertain, and consistent with the Commission's Memorandum and Order of September 9, 2011, this proceeding is suspended.

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD

/RA/

Thomas S. Moore, Chairman
ADMINISTRATIVE JUDGE

/RA/

Paul S. Ryerson
ADMINISTRATIVE JUDGE

/RA/

Richard E. Wardwell
ADMINISTRATIVE JUDGE

Rockville, Maryland
September 30, 2011