

WM2013 Conference Panel Report

PANEL SESSION 102: The Future of Consent-Based SNF/HLW Disposal Siting and Discussions of the Alternatives

Co-Chairs: Eric Knox, *URS*
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Panel Reporter: Robert Edmonds, *AREVA*

Panelists:

1. **Irena Mele**, *Head of IAEA Waste Technology Section, IAEA (Austria)*
2. **Olle Olsson**, *Vice President, Strategy and Programme, SKB (Sweden)*
3. **Mariano Molina**, *Head of Department of International Relations, ENRESA (Spain)*
4. **Ciara Walsh**, *Project Manager, Upstream Optioneering, Radioactive Waste Management Directorate, NDA (United Kingdom)*
5. **Matti Kojo**, *School of Management, University of Tampere (Finland)*
6. **George Dials**, *President and Project Manager, B&W Conversion Services, LLC*
7. **John Heaton**, *Chairman, Eddy Lea Energy Alliance, New Mexico*
8. **Glenn Paulson**, *Science Advisor to the Administration, US EPA*
9. **Donald Vieth**, *Retired former Program Manager Yucca Mountain Project (1982-1987)*

About 60 people attended this panel session which focused on the Consent-based siting process as practiced by several European countries and which was proposed by the Blue Ribbon Commission on America's Nuclear Future (BRC). The session opened with four international panelists providing a description of the geological repository or interim storage facility siting process in their country. **Irena Mele** provided an overview from the IAEA perspective. This was followed by a question and answer session which included questions on the federal and local governments' role in the process, and the ownership of the site. Following the international panel, four panelists gave perspectives on the US siting process. This too was followed by a Question and Answer session which focused on the BRC report findings and the role of governors and states, the role of economic benefits in local/state decision making, and the timing of the decisions which must be made by local/state entities.

Summary of Presentations from Panel 1 – International Experience

Irena Mele noted that IAEA gives high priority to storage. Provided a global perspective noting the encouraging progress for some European programs (Finland, Sweden & France) but that progress in member states was slow with 25 countries having L/ILW repositories but there were still no facilities for SF or HLW disposal. She noted that in many countries there were still no clear policies and strategies for RW disposal and that many newcomers placed emphasis on NPP construction without consideration for SF and waste management needs. She said lessons learned include the fact that 1) siting is very country specific, and 2) the sharing of approaches is much more difficult than sharing of technologies, and 3) political support is crucial to success. She also advised that IAEA have established a CONNECT network platform of c. 1000 professionals to revolutionize training and engagement of member states.

Olle Olsson was in charge of the siting program for Sweden's geological repository. It took 32 years to select the site from 1997 to 2009.. Early on there were multiple protests, to the point

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that the program was put on hold for many years. It was restarted in 1993 when letters were sent to counties with little response even though the national sentiment for a repository had improved from 70% negative to 55% negative. SKB then turned to the nuclear facility sites as candidate hosts. The process down selected to 2 sites before the site at Forsmark Nuclear Power Plant was selected in June of 2009 because it had more stable geology.

Mariano Molina Martin provided some background to the Spanish energy program including the fact that Spain has 8 Nuclear Power Plants and fuel fabrication and other nuclear waste producer sites. There are 3 Independent Spent Fuel Storage Installations (ISFSIs) at 3 NPPs and 2 are under construction. Spain committed to have a Centralized Storage facility in 2017. The facility called ATC will operate from 2017-2077 when a deep geological repository will be available. The repository site selection program was being largely driven in a top down approach until 1995 when public opposition surfaced in the form of stakeholders. The Spanish Senate redirected the program to take into account local input, and in 2004 the decision was made to go to Centralized Interim Storage. Siting of the ATC took place in 3 phases: 1) go to the association of Nuclear Facility host sites and ask them to develop recommendations on siting, 2) government turned recommendations into legislation, 3) solicit volunteer sites. This last step was in 2009. 14 sites volunteered and were down-selected to 8 based on suitability. A final site was selected at Las Bolanzas, with licensing to begin later this year. He noted that the ATC will be centralized temporary storage (60-year life, 100-year design), enhancing safety, security and providing economic advantage, noting that the storage site acceptance was enhanced by combining it with a research and development facility.

Ciara Walsh from UK NDA gave the current status of siting a deep geological repository. The framework was published in 2008, with a recommendation of deep geological repository 200-1000 m below the surface. Scotland did not accept the framework decision and chose surface or near-surface storage. Communities were solicited for interest in 2008. Two communities, Allerdale and Copeland, in Cumbria region volunteered. One key point is that a partnership was formed in each community in which trade unions, local authorities, businesses, and others to provide input and recommendations to the local decision makers in the volunteer communities. The final approval to be a volunteer community required a vote of one or both local communities as well as the positive vote of the Cumbria authorities. The vote in January 2013 failed because, while both communities said “yes”, the Cumbria authorities said “no”. NDA is in the process of evaluating lessons learned before they go back to the selection process. A major lesson learned is that the “benefits package” needs to be an early and transparent part of the process. The NDA did not bring the issue of tax revenue/benefits into the discussion early enough. Second issue is that the communities did not encourage the formation of advocacy groups until after the anti’s had gained momentum.

Matti Kojo from the University of Tampere in Finland discussed the site selection process for the Finnish Repository. Finland has accumulated around 9000MTU of used fuel. Repository site selection began in the 1970s and continued to the 1990s. After a broad search, volunteer sites faced strong opposition and failed to achieve results, the utilities TVO and Posiva agreed to host on property they controlled. A site at Olkiluoto was chosen. Then, a new nuclear utility, Fennovoima was formed and requested the use of the chosen site. Fennovoima and Posiva are currently in disagreement over allowing them to use the Olkiluoto site. Mr. Kojo stated that the questions are: 1) Will the government force a solution?, 2) Will Fennovoima be forced to open

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their site?, and 3) Will the government utilize a consent-based process since the local authorities will ultimately have final say as to the use of the facility they are hosting.

Questions and Answers –Panel 1 – International

Abe Van Luik asked Mr. Kojo why the government would allow the disagreement between the 2 utilities to proceed as he described. **Mr Kojo** said that everyone wants to respect the consent process and let the parties find consent themselves.

New Mexico Environment Secretary David Martin asked the panel 1) who owns the site in their country? And 2) who selects the contractor to develop the site? **Olle Olsson** stated that SKB in Sweden owns the site and they self perform development. **Mariano Molina** said in Spain the generators of the waste are required to guarantee the solution. He said that waste management is the responsibility of the government sector and is provided as a public service. The state delegated ENRESA (a public company) to manage the waste. ENRESA owns the site for Interim Storage and will own the site for repository until it is closed when it will be transferred to the government.

Larry Camper of NRC asked Irena if IAEA would collect and distribute approaches and experience. **Irena Mele** stated that the COLOM project is serving this purpose but could be expanded. Mr. Camper followed up with a question about what the role of the regulator is in educating the public. **Ciara Walsh** responded that in the UK the regulator is not responsible for educating but they are required to be accessible to the public. **Olle Olsson** said the regulator in Sweden has done education. **Mariano Molina** said the role of the regulator in Spain is to be a referee and not an educator.

Summary of Presentations from Panel 2 – United States Experience

George Dials presented a schedule for the WIPP project which he stated was one of the keys to success in public participation and consensus gaining. The schedule showed regulatory decisions, stakeholder/oversight plans, experimental program and PA, waste characterization certification and inventory, and operations. He noted that the early and detailed involvement with community stakeholders and regulators was the key. He noted that all stakeholders are important, local and distant. He said he forced WIPP project leaders to move to Carlsbad. He noted that it is critical for the project team to interact often with regulators. This also goes for politicians, local and national. He said a major key to community and state acceptance was the early involvement of internal community to perform an independent review of the project. He noted that the transportation routes, many of which pass through major population centers, will impact many more people than the actual project and that educating the public on transportation is crucial.

John Heaton presented an overview of both the successful WIPP experience and the path the local Carlsbad community is pursuing for WIPP mission expansion and Consolidated Storage of UNF. Congress authorized WIPP in 1979 and in 1980 the New Mexico Attorney General filed a lawsuit opposing the project. Construction began in 1981, but the public and Attorney General were not convinced the project should proceed. Through education programs discussed by George Dials the project was able to satisfy the public and Attorney General and actually opened

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in 1999. Mr Heaton described a two pronged approach by the Carlsbad Economic Development office to seek authorization to bring HLW to New Mexico at a location near WIPP and to be a host site for Consolidated UNF storage. He said regarding Consolidated Storage that the Host Agreement between the State and DOE will be the critical item for moving forward.

Glenn Paulson described the BRC's approach to consent based siting. He noted the 8 findings of the BRC and detailed each one. One key recommendation was to decouple the timing of interim storage from the repository. He noted that President Obama has signaled that details on how the government will address the BRC findings would be included in the President's FY2014 budget request (usually submitted in February, but delayed to March this year).

Donald Vieth was Program Manager for the Yucca Mountain Project from 1982 to 1987. His time on the project spanned the passage of the Nuclear Waste Policy Act in 1982 and the Nuclear Waste Policy Act Amendments in 1987. He offered his perspective on that time period and the most recent BRC report findings. Regarding consent-based siting, he noted that the 1987 Amendments were unusual in that Congress inserted itself into the siting process whereas this had been the purview of the Administration up to that point. He observed that the approach of having Congress choose only one site was not consent-based. He observed that the BRC report had imbedded assumptions including: that politics before siting can yield results. He observed that the BRC report provided no "plan B" in the event no volunteer sites stepped forward. He said that the report's assertions that WIPP was consent-based were wrong. He observed also that the WIPP project was not a consent-based siting approach in the usual sense because the Congress also designated the site and then the project and the Carlsbad community successfully defended the choice and ultimately gained the public support and political agreement. On WIPP there was no licensing on the front end, only on the back end of the process. Finally, he observed that the BRC report was highly "aspirational" and lacked necessary detail.

Questions and Answers – Panel 2 – US Panel

Bob Halstead from Nevada asked how the panel saw the role of State Governors, especially if put in the position where they can't say "my site is best of a set of good sites?" **George Dials** noted that the Governors rule at the discretion of the people so they must represent the will of the people.

Ciara Walsh noted in discussions that the UK siting experience may have been different if the requests for volunteer sites had been sent to a wider group and not just to the County Council Chairmen. She believed that there would have been more volunteer sites identified.

Don Peek asked how much economic benefits play in gaining volunteer site approval. **Ciara Walsh** said that in the UK benefits were not addressed in Phase 1 and that had they been addressed then it may have improved the chances of acceptance. **Olle Olsson** said it was not considered proper to discuss benefits in the early phases. It was assumed that site development expenditures and spinoffs would be adequate. But later a benefits package was deemed desirable and was added. He noted that a large fraction of the benefits funds were awarded to the site that was NOT chosen. **Mariano Molina** noted that in Spain they did not use the term "compensation" because the government didn't feel they were compensating for anything. He said they chose to call the benefits "added value". He said that the LLW waste facility

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community received €1M/year added value. He said that incentives are necessary, especially for mayors and governors. He said that citizens were mostly not concerned with benefits. **John Heaton** noted that the State of NM received benefits of \$20M/year for 15 years. The state chose to put the funds into the state road construction fund, therefore essentially bonding the \$s and preserving them for transportation and not for other uses.

Bill Wallace, citizen, took issue with Donald Vieth's characterization of WIPP not being consent-based, and stated that in his opinion it was consent based. **Donald Vieth** noted that in his definition of consent-based it means that each party to the consent has equal power and that this was not the case of the Congressional designation of WIPP at the site.

Tom Cotton of Complex Systems Croup asked "What kind of engagement with the State and Governors is needed." He observed that in the case of the Nuclear Waste Negotiator in the US, the Governors were asked to make go/no-go decisions too soon, forcing the Governor of Wyoming to say "no" because he felt he was being put in the position of having the US government place a decision in his "lap" that he was not prepared to make. **Ciara Walsh** observed that she believed the Counties in UK were given too little information before being asked to decide. **Mariano Molina** said that the issues are often mischaracterized as a "Government Problem" when they should be characterized as the "nation's problem", in that the nation benefits from nuclear power and the nation must find a solution.