

## MINUTES

**Wednesday, January 23<sup>rd</sup>**

Idaho State Capitol (Lincoln Auditorium)

700 W Jefferson St, Boise, ID 83702

9:00 am – 3:30 pm

### Commissioners Present:

Mark Nye	John Grossenbacher
Janet Nelson	Wendy Horman
Scott Synder	Scott Bedke
Bobbi-Jo Meuleman	Joe Weismann
Mark Peters	
John Tippetts	
Rebecca Casper	
Fred Hughes	
Lawrence Wasden	
Noel Bakhtian	<u>Staff Present</u>
Harold Blackman	Elli Brown
Rose Bernal	Nate Fisher Jr
Jeff Feeler	John Revier
Tom Kealey	Brian Wonderlich
Janice McGeachin	
Steve Laflin	

### **Welcome and Introductions**

Co-Chair Peters: called meeting to order at 9:05 a.m. Welcomed new commissioners: Lt Governor McGeachin, Idaho Commerce Director Tom Kealey, Joe Weismann with US Ecology, Scott Synder with Idaho State University, and new Co-Chair Bobbi Jo Meuleman on behalf of Governor Little.

Co-Chair Meuleman: Commission will be hearing from Governor Little today. LINE is being moved into Governor's Office - look forward to having LINE as a priority for this administration.

Wasden: have an opportunity for the commission to look at the Executive Order – role of commissioners and the charge for the commission going forward.

### **Approval of Minutes**

*Wasden moved to approved October 10, 2018 meeting minutes.* Tippetts had amendments to minutes. Minutes will reflect his suggested changes. Motion to approve minutes to include suggested amendments.  
*Seconded by Tippetts.*  
*Motion passed.*

**Betsy Forinash, Director Department of Energy National Transuranic Waste Program, gave update on AMWTP future mission.** See PowerPoint.

### **DOE AMWTP Q&A**

Tippets —What is the \$3M/month cost while the facility is idle?

A: Mostly personnel cost and some maintenance as well as maintaining regulatory permits.Grossenbacher – have there been cost considerations, from a national perspective, on recreating a similar facility somewhere else in the country? Not easy and not cheap. Did you consider that factor?

A: Yes, you are correct. We took a hard look at it. We don't have a great track record with building expensive and difficult facilities. We are aware that building new facilities is a challenge.

Casper – It is my understanding AMWTP was built with capacity and ability to treat more than Idaho waste streams. If that is the case, why did the site profile change or why didn't the design take something like the Hanford site characteristics into consideration?

A: Cannot comment on conversation or decisions I was not privy to.

**Jack Zimmerman, Department of Energy – Idaho provided a brief cleanup update.** See PowerPoint presentation.

### **DOE ID Q&A**

Wasden – Very encouraged by progress on IWTU. Appreciate the dedicated effort.

A: Appreciate everyone's patience with this process.

Lafin – When IWTU is operational, 900,000 gallons won't take too long to process. Are you considering reuse of the facility?

A: Two things – First, once operational the processing rate will be lower than projected, meaning it will take longer to treat 900,000 gallons than expected. (3 years or so) Second, we don't see any other reuse for facility. It is unique for the complex. Very complicated to ship – no viable off site source. Looking at cleaning out facility to potentially treat calcine.

Grossenbacher – In your monitoring of the tanks, have you seen any indication of added risk for the storage integrity?

A: None.

Grossenbacher - Can you give us a better sense about dry storage of the fuel – describe the facilities - Where did it go?

A: Multiple locations – facility 603 designed for spent nuclear fuel within INTEC complex, Navy fuel was returned to Navy, fraction of fuel is going to Materials and Fuels Complex (MFC) to going through a process that BEA is responsible for. We have an option to move some fuel to MFC and go into dry storage. There is enough capacity to move all material into dry storage.

Blackman – Throughout the process of getting IWTU started you have gained unique information and knowledge. How are you ensuring that information can be shared with others as a lesson learned?

A: We are collaborating with other sites with similar issues in real time. Evolving mechanisms to avoid that issue in the future and gathering lessons learned for white papers. An example: change in requirements to ensure a technology is at the right level for full scale deployment before construction.

Peters – You are mentioning simulant run 3 being 50 days, as well as Phase 3, Phase 4 – can you give me a sense when hot operations start?

A: Cannot comment until we talk through timing with Flour. Phase 4 is radioactive operation.

Wasden - Can you give me a sense of timing, as much as you can estimate, would it be reasonable to assume startup in 2019?

A: Hesitate to commit but in a perfect world, best case, end of 2019.

**John Wagner, Director Nuclear Science and Technology at INL, provided an overview of the National Reactor Innovation Center (NRIC). See PowerPoint.**

#### **NRIC Q&A**

Meuleman – NRIC would be a good opportunity for the lab and the state. What's the timeline for decision of location? Should LINE consider as a commission how we can be supportive?

A: We believe the decision is already made – expecting official announcement later this month.

Wasden – It appears that the NRIC is a defined mission for INL for some time in the future

A: Yes. We believe we are already there and doing this work. NRIC defines and clarifies it for reactor developers. It also has a nice relationship with GAIN that connects private investors and government.

Wasden – With the establishment of NRIC, this allows you to focus on the future and ensures the long term sustainability of the INL. Is that correct?

A: Yes. We are reemerging from dark times in the nuclear industry to do positive things with these new advanced reactors for the private sector.

Kealey – Are there enough resources given the various partners of INL and its mission to converge these ideas?

A: Resources are significant challenge – money and prioritization. Federal government is a key component. Also dependent on private sector dollars. Human capital resources is another significant issue – we worry about having enough people to achieve all of these things we are talking about. We are very focused on our talent pipeline. We are 20% understaffed and can't hire fast enough.

Peters – Labor pool requires partnerships with universities, community colleges and high schools. Strategic partnerships are key. The Issue is broader than just scientific talent.

Nye – Idaho State Senate stands ready to support as you need it.

Grossenbacher – Is there a role for the state in its relationship with NRC and DOE to facilitate success in reducing cost and time of licensing process for the major projects? Explore with the state potential options on how we can support as a commission.

Snyder – You mentioned an understaffing of 20%, what is your biggest workforce need now and in the future?

A: Specifically: Nuclear, mechanical, electrical, chemical, industrial, system engineers.

Baktian – CAES is excited to support addressing the human capital issue with universities and laboratory

Blackman – Complex systems proposed within NRIC, what does the lab have planned for demonstrating the safety and risk of the systems?

A: A big part is demonstrating full scale of the systems, getting the data. Key is building up to that platform by utilizing current reactors online. None of these systems will be commercially deployed if they are not commercially cost competitive. (Construction, timing, operation)

#### **Governor Little Addressed LINE Commission**

The Governor welcomed the committee and mentioned his excitement about receiving wise council from the Commission. The impact and footprint continues to grow with all the great work taking place on the research and development as well as cleanup. Would like to be proactive for the role of the laboratory –

the state of Idaho wants to be supportive. Encouraged continued statewide outreach. He thanked Commissioners for their service and look forward to the periodic reports. The dialogue is a key component to Commissioner's success and the state of Idaho.

Wasden – Thank you for the open dialogue and congratulations.

McGeachin – Thank you for continued support for LINE and recognizing INL as the asset.

**Shannon Bragg-Sitton, Integrated Energy Systems Lead at INL, addressed Joint Use Modular Plant(JUMP) dealing with the Small Modular Reactor project. See PowerPoint presentation.**

Tippets – viability of the project is still somewhat in question (customers, cost, etc). JUMP increases viability of the project that provides certainty. Can you give me your assessment of viability?

A: The first module would be dedicated to JUMP which allows DOE to assume the risk associated with development. Personally hopeful the project will move forward. There are many stakeholders involved in its success. DOE is very interested in seeing this project through to the finish line.

Kealey – Timeline of the JUMP: When does R&D stop and production start?

A: R&D is starting now by enhancing existing programs. Timing is unknown, will be based on research flexibility structure. We expect some research to end on a 2020 timeframe, but research will be ongoing. NuScale submitted designs in 2017, this is undergoing review currently. We will work with Nuscale and UAMPS on any amendments to certification/applications as necessary.

Grossenbacher – has NuScale put restrictions on IP/data associated with their commercial activities?

A: Chris Colbert, NuScale Power: NuScale has had a proactive approach with laboratories in publishing results. There is proprietary information that we will protect. Chief technology officer has been a strong advocate in making sure as much information is in the public as necessary and useful.

**Dana Kirkham, REDI CEO, gave a report on potential economic impact the east Idaho region would see with the SMR project. See PowerPoint and Report.**

#### **REDI Q&A**

Meuleman – what information did you look at when studying the supply chain?

A: No specifics for the supply chain, got information from NuScale. Those details fall into next steps – what kind of industry, what kind of manufacturing and businesses that would want to become a supplier?

#### **Nuclear Advocates Panel with John Kotek (NEI) and Dana Kirkham (REDI)**

Kirkham gave an overview of local grassroots effort taking place – trying to be in lock step with existing and national organizations instead of recreating the wheel. See the emerging workforce and next generation being interested in nuclear industry. She asked the Commissioners, “Who is telling the nuclear story on the state level?” Kirkham challenged the Commission to set guidelines. Who are the people that are going to engage?

Kotek, as a charter member of LINE understand the importance of LINE mission and appreciates Commissioner's dedication to these issues. Gave overview of national activity for nuclear advocacy to ensure a thriving nuclear industry in the US. The goal is to do a better job telling the nuclear story – its value and potential for positive impacts or role it can play in the clean energy system going forward.

#### **Nuclear Advocates Q&A**

Weismann – Are subsidies for renewable energy sources distorting pricing?

A: Depends on plant – system wide the issue is the low price of natural gas

Weismann – Why isn't nuclear getting much traction surrounding discussions of carbon free energy?

A: We need to keep pushing the message, especially in the legislative branch. With democrats taking control of the US House of Representatives, we have an opportunity to work with them as they push for less carbon-based energy development.

Casper – public power is different than private power – not profit driven vs. profit driven. Public power is uniquely positioned to bring new technology, like SMR, online because they can assume more risk and benefit from the advantages.

Grossenbacher – One of the missing pieces are folks who are knowledgeable about the industry but are honest brokers and not beholden to a particular industry or sector of energy. Universities make the most sense. They understand the issues and the state and will enrich the public dialogue. They have a voice and they have trust. They would not provide the answer, but they would provide the insight into both sides of this issue.

Synder – appreciate the comment, universities do have an important role. Does NEI have any educational programs to help implement or/and develop?

A: NEI is an advocacy focused on federal and state policy. ANS would be more involved in the university vein. Education is one component of messaging – not the only lead to deliver messages.

Blackman – we are in position and ready to assist, ready to work together thanks to our unique partnership with CAES. Energy Policy Institute (EPI) can play an important role with independent input. Need the infrastructure and funding. There is a degree program opportunity within this arena for Idaho children.

Nelson – Universities are in a good place to be an honest broker and convene these conversations. We house the McClure Institute that could also be leveraged.

Peters – We should engage CAES and Energy Policy Institute on a grander scale.

Horman – From a state legislative perspective we announced the Energy and Technology Caucus this week, based on Pennsylvania caucus, the first meeting is scheduled for February 7<sup>th</sup>.

Peters – There is a need for a coordination function, the lab can't do it. Who is the organizing principal? What does it look like in Idaho? Different than protecting existing fleet.

A: Looking at other state for examples – supportive legislation passed to protect existing fleet (industry), labor (workforce) chamber of commerce. Pulled together coalition New Jersey Needs Nuclear and operated as a clearinghouse for messaging and organize the state legislature hearings and messaging.

A: Maybe consider a layered approach – national, state, local. NEI is the overarching federal approach. State and local levels: who is the convener? University is an option.

Casper – We have an opportunity as the LINE Commission, to have broader discussions surrounding nuclear energy

### **Subcommittee Updates**

- Research Development Demonstration and Deployment, Mark Peters

- Mission of committee: SMR (support and provide information), Advanced Reactor opportunity, Economic Impact (jobs, leadership) big focus going forward
- Final Supply value chain report in commissioners packets – the report frames the issue with a lot more work to take place
- Subcommittee will meet soon to talk about next steps
- Education and Workforce, Amy Lientz
  - Development of nuclear career roadmap website
    - College of Eastern Idaho is the host of the roadmap for maintenance and updates
  - Future of the committee:
    - Focus on rollout of roadmap, will look to industry, economic development and chamber of commerce to post on websites
    - What are the skill sets and curriculum for tomorrow
- Safety and Environment and Risks, Harold Blackman
  - Draft Calcine report in commission packets—this is a prototype, feedback is welcome from Commissioners on format and content
  - Completed drafts of other waste streams—TRU waste, Spent Nuclear Fuel and Remote Handled Low Level Waste—all will be placed into a similar format once Commissioners provide buy-in.
  - Subcommittee may meet in late February: reviewing documents and addressing what's next for subcommittee

### **Public Comment Period**

*Richard McPherson, private citizen* – talked about his personal history within the nuclear industry. Believes INL is the geographical center of commercial nuclear power development and Idaho has an opportunity to capitalize on that role.

*Beatrice Brailsford, Snake River Alliance* – Union of Concerned Scientists conducted a study of subsidies for nuclear power – concluded in many instances it would have been cheaper for the government to buy the electricity and give it away for free than provide the subsidies for decades. That is the context in which we should consider the UAMPS project: UAMPS is assuming the federal taxpayer will pay for 50% of its CPP project. How many 700 megawatt reactors are people in the country willing to buy? If anything could be learned from recent nuclear plant construction failures it is nuclear never gets cheaper.

*Julie Hoffnicks, Snake River Alliance* - 1995 DOE/State of Idaho settlement agreement placed safe limits of the scope of nuclear activity in Idaho – including Idaho not taking in any nuclear waste. Idahoans have been clear about not wanting nuclear waste piling up over aquifer. Believe the NuScale project at INL is against the spirit, if not clearly against the letter of the law of the 1995 settlement agreement. Any waste from production will stay at INL with no long term solution for safe final disposal of nuclear waste. Governor Little spoke about dialogue and public confidence. As an Idaho citizen have questions that haven't been addressed:

1. Water use: Nuclear power requires a lot of water for cooling and INL is located in a desert. Will the water be taken away from farmers? What's the best use of the Snake River Aquifer?
2. What are the findings from the seismic assessments?
3. Proposed to shrink the Emergency Planning Zone as part of the SMR project to the fence line. What would be covered in the event of an accident? How will the public anywhere near INL but outside the fence line be protected?
4. SMR: How long will it take to recoup all of the investments made in this project? What's the payback period?
5. What extent will taxpayer dollars be spent on the projects addressed during the meeting today (NRIC)?

6. Most importantly, what are your plans for safe, permanent disposal for the nuclear waste produced by the SMRs? Without an answer to that question, we should not expand the nuclear footprint in Idaho.

Would like questions addressed as part of a public dialogue.

#### **Commission Discussion**

Next meeting will be May 16<sup>th</sup> in Idaho Falls. More details to follow.

#### **Closing Comments/ Adjournment**

*Wasden moved to close meeting.*

*Meuleman seconded. All in favor.*

*Motion approved.*

**Meeting adjourned at 2:59pm.**