



IDAHO CLEANUP PROJECT

CITIZENS ADVISORY BOARD

Meeting Minutes

August 18, 2021

List of Acronyms

AoA	Analysis of Alternatives	IDIQ	Indefinite Delivery Indefinite Quantity
ATR	Advanced Test Reactor	IEC	Idaho Environmental Coalition
CAB	Citizens Advisory Board	INL	Idaho National Laboratory
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	INTEC	Idaho Nuclear Technology and Engineering Center
DDFO	Deputy Designated Federal Officer	ISA	Idaho Settlement Agreement
D&D	Decontamination and Decommissioning	IWTU	Integrated Waste Treatment Unit
DEQ	Department of Environmental Quality	MCL	Maximum Contaminant Level
DNFSB	Defense Nuclear Facilities Safety Board	MFC	Materials and Fuels Complex
DOE	U.S Department of Energy	NEPA	National Environmental Policy Act
DOE-ID	U.S. Department of Energy Idaho Operations Office	NRF	Naval Reactor Facility
EBR-II	Experimental Breeder Reactor II	PCE	Perchloroethylene
EM	DOE Office of Environmental Management	ppb	parts per billion
EPA	Environmental Protection Agency	ppm	parts per million
ESCM	End State Contracting Model	RCRA	Resource Conservation and Recovery Act
ESER	Environmental Surveillance, Education, and Research	RWMC	Radioactive Waste Management Complex
HEPA	High-efficiency particulate air	SNF	spent nuclear fuel
ICDF	Idaho CERCLA Disposal Facility	TAN	Test Area North
ICP	Idaho Cleanup Project	TCE	Trichloroethylene
		TMI	Three-Mile Island

The Idaho Cleanup Project (ICP) Citizens Advisory Board (CAB) held a meeting on Wednesday, August 18, 2021 virtually via Zoom. An audio recording of the meeting was created and may be reviewed by calling CAB Support Staff at 208-557-7886.

Members Present

Josh Bartlome
Brad Christensen
Teri Ehresman
Monica Hampton
Roger Hernandez
Brandon Leatham
Talia Martin
Dick Meservey
Mark Permann
Bob Skinner

Member(s) Not Present

Jackie Agenbroad

Deputy Designated Federal Officer (DDFO), Federal Coordinator, and Liaisons Present

Connie Flohr, DDFO, U.S. Department of Energy Idaho Operations Office (DOE-ID)
Danielle Miller, Federal Coordinator, DOE-ID
Fred Hughes, Program Manager, Fluor Idaho
Mark Clough, State of Idaho
Pete Johansen, Idaho Department of Environmental Quality (DEQ)
Benjamin Leake, U.S. Environmental Protection Agency (EPA)

Others Present

Ann Riedesel, Fluor Idaho	Aaron Nebeker, DOE-ID
Tami Thatcher	Colin Jones, IEC
Nicole Badrov, DOE-ID	Shelby Goodwin, DOE-ID
Ted Livieratos, DEQ	Beatrice Brailsford
Mark Brown, DOE-ID	Rusty O'Malley
Scott McMullin	Berta Oates, High Desert Consulting Services
Joel Case, DOE-ID	Tim Hunt, DNFSB
Sergio Hernandez, DOE-ID	Tali Jenkins
Amy Ochs, IEC	Wendolyn Holland
Alan Carvo, INL	Chris Henvit, NRF
Brandt Meagher, Navarro	Alicia Wichmann, DOE-ID
Bill Kirby, IEC	Betsy McBride
Jamie Miura, North Wind	John Stang, RadWaste Monitor, Weapons Complex Monitor
Laurie Hernandez, Shoshone-Bannock Tribes	Ty Blackford, IEC
Trent Neville, DOE-ID	Jade Dye, North Wind
Jack MacRae, North Wind	Sandra Todoro, Navarro
Cathy Hickey, Navarro	Nick Balsmeier, DOE-ID
Shelby Goodwin, DOE-ID	Rick Dale, Fluor Idaho
Kelsey Shank, The Edge	Bryant Kuechle, ICP CAB Facilitator
Jordan Davies, ICP CAB Support Staff	Kelly Green, ICP CAB Support Staff

Opening Remarks

Facilitator Bryant Kuechle began the meeting at 3:00 p.m. He introduced himself, reviewed the day's agenda, and noted that one public comment period would be held at 4:45 p.m. Interested members of the public were invited to register in advance. Kuechle also outlined the "Rules of Zoom" for the CAB's all-virtual meeting. He reminded attendees of the process for public comments during the meeting, time permitting, or via questions submitted in writing. He did a roll call of the CAB members so everyone would be aware of who was present for the virtual meeting.

Brad Christensen (CAB Chair) said he was sad to have his last meeting in a virtual format. However, he is looking forward to a good agenda. He commented that there were a lot of people attendance, so having an evening meeting appears to be successful in getting more people involved. Christensen noted that he was sorry the CAB members did not get to participate in a site tour this year, and that he hopes things get back to normal soon.

Connie Flohr (DOE-ID) welcomed everyone to the meeting and expressed regret that they were unable to meet in person. She said she was pleased with the progress at the Integrated Waste Treatment Unit (IWTU) and DOE's award of the new contract, both of which will be covered in detail during the meeting. She commented that the new Program Manager, Ty Blackford, had joined the call and will introduce himself later. Flohr said she looked forward to the day's discussion and thanked everyone for participating.

Mark Clough (State of Idaho, Idaho Settlement Agreement [ISA] Coordinator) thanked Christensen for his service. He agreed that he wished the tour had been able to occur and said he hoped Flohr and her team would be able to put together another tour at some point in the future. Clough welcomed all members of the public and said he was looking forward to the day's agenda, and in particular, the presentation on spent nuclear fuel (SNF).

Pete Johansen (Idaho DEQ) stated that he, too, was looking forward to a future tour. He commented that CAB members are encouraged to reach out with questions and to use the Idaho DEQ website as a resource. He said he was looking forward to the meeting.

Benjamin Leake (EPA) commented that he had been assigned to help Lynne Hood (EPA) and would be working on the Idaho Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Disposal Facility (ICDF) and Decontamination and Decommissioning (D&D) at the Naval Reactors Facility (NRF). Leake said he was happy to be working with DOE as he used to work at DOE-ID, and very much looking forward to working with the community again.

Fred Hughes (Fluor Idaho) stated that he was looking forward to sharing the progress Fluor Idaho had made since the last meeting.

Recent Public Outreach

Danielle Miller (DOE-ID) reviewed recent public outreach activities. The document is available on the ICP CAB website: <https://energy.gov/em/icpcab>.

Idaho Cleanup Project Overview

Connie Flohr, Nicole Badrov, and Joel Case (DOE-ID) provided a presentation on the status of cleanup at the Idaho site. The presentation is available on the ICP CAB website: <https://energy.gov/em/icpcab>.

During Case's presentation, Flohr commented that DOE-ID has been working on an Analysis of Alternatives (AoA) for some time and is briefing the Acting Assistant Secretary for the Office of Environmental Management (EM), Ike White, next Wednesday on the recommendations for path forward. She said she hoped they would be able to provide more information on plans for 2022 during the October meeting.

During Badrov's discussion of test wells, Christensen asked if, following drilling for a core sample, the area is capped or if there is a sleeve that closes the area off. Badrov explained that the well is essentially drilled out, the cores are removed from the subsurface, and a casing is set into the well so it can either be used for sampling or injection. This well will be used not only as an injection well to inject the in-situ bioremediation treatment amendment, but also as a monitoring well to monitor the trichloroethylene (TCE) concentrations.

Mark Brown (DOE-ID) asked Badrov to also talk about well decommissioning. Badrov said that decommissioning of a well is fairly simple and typically just involves grouting with bentonite so nothing can get into the well. She committed to providing some photos of the process at a future CAB meeting.

Integrated Waste Treatment Unit (IWTU) Overview

Trent Neville (DOE-ID) provided a presentation update on IWTU. The presentation is available on the ICP CAB website: <https://energy.gov/em/icpcab>.

Kuechle read a question submitted from a member of the public in the chat: Is off-gas only measured at the end, or further back to be able to close off emissions before the facility leaks? Neville responded that there are numerous samples taken in the off-gas stream, starting at the primary reaction vessel and continuing all the way through. These samples monitor for process conditions and if any of those go outside of established process parameters, the system is shut down and put into safe mode. Neville clarified that the monitoring he was referring to at the end of the process is for emissions permitting from a Resource Conservation and Recovery Act (RCRA) standpoint. That monitoring shows what is leaving the stack.

Bob Skinner (CAB member) asked about disposal of filter media and the off-gas. Neville commented that if Skinner was referring to the process gas filter and the off-gas filter, they are not expecting to have to change those out during processing. If, however, they do need to be changed, they will be handled as the appropriate waste stream. If, on the other hand, Skinner was referring to the high-efficiency particulate air (HEPA) filters, those will be handled as low-level waste.

Flohr commended Fluor Idaho for an outstanding job of going through a very methodical process to take this plant from non-operational to this point. She said it is starting to get serious and she is very excited about moving into the next phase. She added that she looks forward to hopefully sharing even more good news in October and that it is nice to be ahead of schedule for a change. She thanked Hughes and his team.

Westbay Well Rehabilitation Update

Shelby Goodwin (DOE-ID) provided a presentation on the Westbay Well rehabilitation. The presentation is available on the ICP CAB website: <https://energy.gov/em/icpcab>.

Christensen invited Johansen, Clough, and Leake to comment on perchloroethylene (PCE). He requested confirmation that PCE is not radioactive and asked what potential threat it might pose if it were to reach the aquifer. Johansen explained that PCE is a suspected carcinogen with a maximum contaminant level of 5 micrograms per liter in groundwater. He reiterated Goodwin's assertion that it was found in the tubing fluid only, not in the aquifer.

Christensen asked Goodwin and Johansen to explain the "threat" in terms the CAB members and public can understand and to compare it to other contaminants that have been found in the wells. He added that it seems PCE is not a major contaminant and less alarming than others. Johansen said that at Test Area North (TAN) there is TCE, which is a similar contaminant and a suspected carcinogen. It is a solvent that is found in the groundwater plume up there.

Talia Martin (CAB member) asked why they stop the rehabilitation when they reach 5 micrograms per liter as opposed to continuing until they reach zero. Why not keep rehabilitating until it is completely gone? Goodwin responded that while zero is the ideal, it is not feasible. The maximum contaminant level (MCL) is a standard set by EPA. This level does not pose an unacceptable risk to human health. Once concentrations

become that low, it can be difficult to continue reducing them. She reminded the CAB that every time something is put down the well, there is a risk. If the MCL is reached, it is considered acceptable.

Martin commented that while she understands the MCL is what is acceptable, in terms of aquifer protection there will always be a worry that the PCE will reach the aquifer eventually, especially because they are not sure of the source. She asked for confirmation that the PCE levels are not currently increasing. Goodwin confirmed.

Skinner asked Goodwin to convert the 5 micrograms per liter to parts per million (ppm). Goodwin said micrograms per liter is equivalent to parts per billion (ppb). So, the conversion would be 0.005 ppm. Skinner responded that it is a very small amount.

Public Comment Session

Tami Thatcher (Idaho Falls) said she was looking through DOE occurrence reports and saw that there was a SNF event in June of this year, in addition to four others. While they were noted in the presentation, none of them were discussed. She commented that she hopes the next presentation will talk more about that. She explained that the trailer with the cask detached from the trailer as they were moving Experimental Breeder Reactor (EBR) II fuel from the Idaho Nuclear Technology and Engineering Center (INTEC) to the Materials and Fuels Complex (MFC). She said she was confused about how that could happen with all the inspections that should have taken place and asked for more information.

Regarding the Westbay Well rehabilitation update, Thatcher said she was grateful to hear the multi-level well report and commented that this investigation has been going on a long time. The event itself occurred in the 2016-2017 timeframe. She stated that the wells were being used for a number of years for monitoring the aquifer before the problem was detected. Thatcher said it was interesting to learn that unpredictable amounts of tubing water can enter a sample bottle at any time and that it seems like that would influence the accuracy of monitoring. While today's presentation asserted that a tanker truck used in construction of the well is now the suspected culprit, that is different than the initial hypothesis that the tubing had come contaminated. The tanker truck was used for water to fill up the tubing and Thatcher said she thinks it was filled with water from an INL well somewhere. She commented that she still finds the cause of contamination very mysterious.

Thatcher also said she has been very confused about all the Westbay multi-level deep wells over 1000 feet deep. There are Westbay wells that have been installed but have not been used for samples, including one south of NRF and one north of the Advanced Test Reactor (ATR), which is also curious.

Thatcher commented that she had been trying to access environmental monitoring reports and that Idaho Environmental Surveillance, Education, and Research (ESER) is the contractor for environmental monitoring reports for the Idaho National Laboratory (INL) site. She explained that by June of 2021, the 2020 annual report would have typically been made available, but that Idaho ESER has only made available the first quarter of the 2020 report. Quarterly reports are normally done a couple months following the quarter. There is no annual report for 2020. Idaho DEQ has some environmental monitoring for 2020, but it is also interesting. For 2020 for Idaho Falls, there is no data from July 1 to September 18, 2020. There are interesting things going on with radiological airborne emissions from the INL and huge gaps in the monitoring. People should be aware of this.

Spent Nuclear Fuel (SNF) at the Idaho Site

Joel Case (DOE-ID) provided a presentation on SNF at the Idaho site. The presentation is available on the ICP CAB website: <https://energy.gov/em/icpcab>.

Flohr commented that DOE is often asked why they built the staging facility for the fuel that comes out of the packaging facility before building the packaging facility itself. She reported that it was simply a sequencing issue. During the change in administrations, the staging facility had a much smaller price tag, so

they were able to get it through the budgeting process much easier. It did not have to go up to the Deputy Secretary or the Secretary for approval. Because the actual packaging facility has a larger price tag, it needs to go through higher level approvals. DOE-ID did not think it was the right time to try to get it approved with new people in the office. Now, however, they are able to push the packaging facility documents forward for approval.

Flohr asked Case to talk about how the fuel ended up in Idaho to begin with. Case responded that the National Reactor Testing Station was heavily involved in commercial nuclear safety throughout the 1980s. Idaho became the go-to site simply because the capability was here. For example, Three Mile Island (TMI) fuel was sent to Idaho because Idaho was heavily involved with it already, and the INL then did research on it. A lot of the different reactor configurations came to Idaho just because of the history of the site.

Martin thanked Case for his understandable presentation and asked for clarity about the expansion: Are the staging and packaging facilities two separate projects? Case confirmed and said they are driven by eccentricities in DOE's project management. The concrete slab is not going to be quite as complicated, but the packaging demonstration will be a little more involved because it will be handling fuel. DOE needs the facility to be flexible to allow for efficient loading of various fuel types.

Martin commented that they will put it next to the 2707 area and asked if it will expand beyond the fence line. Case responded that he did not think so, but that it would be part of the next phase. They should have plenty of room and should not have to expand beyond the fence line.

Martin asked, if they do have to expand, whether they would have to go through the National Environmental Policy Act (NEPA) process. Case said they would defer to the NEPA experts and do whatever they were required to do.

Martin commented that there is such a big gap and asked if there was another facility there in the past. Case replied that he did not think so but recognized that they did tear down the coal fired plant which is where the empty space is.

Indefinite Delivery Indefinite Quantity (IDIQ) End State Contracting Model (ESCM); ICP End State Contract

Nick Balsmeier and Aaron Nebeker (DOE-ID) provided a presentation on the IDIQ ESCM ICP End State Contract. The presentation is available on the ICP CAB website: <https://energy.gov/em/icpcab>.

Ty Blackford introduced himself as the program manager for Idaho Environmental Coalition (IEC) and said he is excited to come to the Idaho site with his team. He commented that he is looking forward to meeting everyone in person and working together to meet the needs of DOE now and into the future. He thanked Nebeker and Flohr for inviting him to introduce himself today.

Teri Ehresman (CAB Vice-Chair) commented that contract changes can be destructive to the workforce, especially with uncertainty surround job security. She asked what is being done to protect worker safety during this time. Balsmeier responded that employee safety is always DOE's top priority. He explained that he spent five years as a facility representative at the Radioactive Waste management Complex (RWMC) and oversaw the transition from CWI to Fluor Idaho. Facility representatives and federal staff will always be involved in transitions and closely monitoring worker safety. They will be meeting with both contractors throughout the transition.

Balsmeier added that it is in IEC's contract that there will be no layoffs and all employees will be offered their jobs at IEC with no change to their benefits. He said DOE hopes this will alleviate employee concern and distraction. If workers are not safe, end states cannot be reached.

Ehresman asked if DOE expects all cleanup work to be finished in 15 years. Balsmeier said there are some things they hope can meet end state in 15 years. Conversations about what can be completed in that

timeframe will be part of DOE's partnering process with IEC. The end state contract model is based on early wins, but in order to get those wins there needs to be a repository and a task order process to allow that. They will plan for long lead time items, but also look at short-term things they can accomplish. One short-term item is closure of RWMC. Once complete, they will build on that to continue progress.

Flohr asked Hughes to address the safety question from a Fluor Idaho perspective. How does he intend to keep his workforce safe during transition? Hughes responded that he holds a number of virtual townhalls with employees during which he talks to them about safety and provides updates on COVID. He also meets with union leadership once a month to talk about issues and to ensure they are continuing to work safely. Fluor Idaho has reinvigorated safety teams that are employee-led and they are out among their coworkers reemphasizing the need to work safely. Hughes reported that Fluor Idaho just dropped from 0.6 to 0.53 on a recordable rate, so employees are really paying attention right now. He added that they implemented a new program for a pre-job check to consider potential hazards.

Flohr commented that DOE wanted to make sure IEC had a chance to get task orders in place before they started making adjustments to the workforce. She said ensuring no turnover for one year should help minimize distractions, which lead to accidents.

Meservey asked if DOE knows where the fuel is going yet. Flohr responded no, but that the Department thinks it may not be the best use of taxpayer money to package fuel now using Yucca Mountain waste acceptance criteria as the bar against which packaging is measured. On the other hand, the Navy has been packaging to that standard for a while. If ICP does the same thing, the hope is that the repository will be built to accept the fuel that has been piling up in Idaho because ICP is ahead of the rest of the complex. Secondly, the ISA does not say it has to go to a repository by 2035, it just says it has to be out of the State of Idaho. So if Texas or Wyoming or another state has an interim storage facility, Idaho could still meet that milestone. The important thing is settling the waste acceptance criteria so the fuel can be packaged.

Conclusion

Bryant concluded the public portion of the meeting.

Brad Christensen, Chair
Idaho Cleanup Project Citizens Advisory Board