



IDAHO CLEANUP PROJECT

C I T I Z E N S A D V I S O R Y B O A R D

Meeting Minutes

October 23, 2024

List of Acronyms

ARP	Accelerated Retrieval Project	ICP	Idaho Cleanup Project
BEA	Batelle Energy Alliance	IDEQ	Idaho Department of Environmental Quality
CAB	Citizens Advisory Board	IDWR	Idaho Department of Water Resources
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	IEC	Idaho Environmental Coalition
D&D	decontamination and decommissioning	INL	Idaho National Laboratory
DDFO	Deputy Designated Federal Officer	IWTU	Integrated Waste Treatment Unit
DEQ	Department of Environmental Quality	NR	Naval Reactors
DOE	U.S. Department of Energy	NRF	Naval Reactors Facility
DOE-ID	U.S. Department of Energy Idaho Operations Office	ORPS	Occurrence Reporting and Processing System
EECA	Engineering Evaluation and Cost Analysis	RBA	Radiological Buffer Area
EM	DOE Office of Environmental Management	RWMC	Radioactive Waste Management Complex
EPA	Environmental Protection Agency	SSAB	Site Specific Advisory Board
FY	Fiscal Year	TAN	Test Area North
ICDF	Idaho CERCLA Disposal Facility	TCE	Trichloroethylene
		TLG	The Langdon Group
		VOC	volatile organic compound
		WAG	Waste Area Group
		WIPP	Waste Isolation Pilot Plant

The Idaho Cleanup Project (ICP) Citizens Advisory Board (CAB) held its triannual meeting on Wednesday, October 23, 2024. The public was invited to attend in-person at the Sun Valley Resort in Sun Valley, Idaho and virtually via Zoom. An audio recording of the meeting was created and may be reviewed by calling CAB Support Staff at 208-557-7857.

Members Present

Jackie Agenbroad
Teri Ehresman
Debi Farber
Nate Francisco
Monica Hampton

Talia Martin
Dick Meservey
Mark Permann
Jessica Prather
Bob Skinner

Members Not Present

Ladd Edmo
Roger Hernandez
John Sigler

Deputy Designated Federal Officer, Federal Coordinator, and Liaisons Present

Mark Brown, Deputy Designated Federal Officer (DDFO), U.S. Department of Energy Idaho Operations Office (DOE-ID)

Danielle Miller, Federal Coordinator, DOE-ID

Ty Blackford, Program Manager, Idaho Environmental Coalition, LLC (IEC)

Mark Clough, Idaho National Laboratory (INL) Settlement Agreement Coordinator, Idaho Department of Environmental Quality (IDEQ)

Pete Johansen, IDEQ

Ben Leake, Environmental Protection Agency (EPA)

Others Present

Amin Almahie, DOE-ID

Greg Balsmeier, DOE-ID

Nicholas Balsmeier, DOE-ID

Wayne Barber, Exchange Monitor

Nicole Brooks, DOE-ID

Jennifer Cate, DOE-ID

Dan Coyne, IEC

Jeni Goff, The Langdon Group (TLG)

Kelly Green, ICP CAB Support Staff

Carter Harrison, IEC

Chris Henvit, Naval Reactors Facility (NRF)

Nicole Hernandez, DOE-ID

Jean Holdren, IEC

Betsy Holmes, DOE-ID

Lori Howell

Mark Hutchison, NRF

Alan Johnson, ANDX

Mark Jones, DOE-ID

Bryant Keuchle, TLG

Daryl Koch, DOE-ID

Eric Larsen, DOE-ID

Daphne Larsen, DOE-ID

Ted Livieratos, DEQ

Kent Miller, Battelle Energy Alliance (BEA)

Cody Montgomery, DOE-ID

Trent Neville, DOE-ID

Stacy Nottestad, BEA

Mariah Porter, ICP CAB Support Staff

Hayley Price, ANDX

Doug Pruitt, DOE-ID

Scott Reno, DOE-ID

Craig Richins, DOE-ID

Charly Rosenlund

Curtis Roth

Ty Sanders, DOE-ID

Kelsey Shank, theEDGE

Tami Thatcher

Jessica Vasseur, IEC

Steven Wahnschaffe, DOE-ID

Natalie Walker, DEQ

Jonnie Zobell, DOE-ID

Welcome and Opening Remarks

Facilitator Bryant Kuechle began the meeting at 9:00 a.m. He reviewed the agenda and noted the time of the breaks and public comment periods. He reminded attendees of the process for public questions during the meeting, time permitting. He also brought attention to the S5G Engineering Evaluation and Cost Analysis (EECA) presentation on the agenda. He informed everyone that portion of the meeting would be an official public comment period for that project, and it will be open to the public to provide comment for at least five minutes.

Bob Skinner, ICP CAB Chair, welcomed everyone to the meeting and remarked that there were many nice topics lined up on the agenda. He expressed appreciation for all the presenters taking the time out of their busy schedules to come brief the CAB.

Mark Brown, DDFO, DOE-ID welcomed everyone to the first CAB meeting of Fiscal Year (FY) 2025. He expressed appreciation for the CAB members' time and concerted efforts to attend the meeting. He also expressed appreciation for the public's involvement. He recognized Pete Johanson and Mark Clough from IDEQ and expressed appreciation for their attendance as well.

Mark Clough, IDEQ, introduced himself and welcomed the members of the public and the CAB to the meeting. He said he was looking forward to a good, interesting discussion as always.

Pete Johansen, IDEQ, introduced himself. He referenced the S5G EECA presentation on the agenda and said he wanted to explain a bit about the process. He said there are a lot of documents that feed into that analysis and DEQ and EPA reviewed several draft documents including risk assessments for human health involving radiological, non-radiological, heavy metals and organic compounds, as well as an ecological risk assessment. He said all these documents support the EECA which evaluated four different alternatives. He said that DEQ concurs with DOE on alternative 4, which is the complete removal of the S5G prototype reactor. He said he is available to answer questions that may come up later.

Ben Leake, EPA, introduced himself and said he was thankful for everyone taking the time out of their lives to attend the meeting and be part of the cleanup at the INL. He said he was excited that the agenda covered so many Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) projects and remarked that there really is a lot of cleanup work happening at the site. He said he was looking forward to hearing those updates.

Ty Blackford, IEC, said he was happy to be in attendance to update everyone on what they've been doing for the last quarter. He said it was his last CAB meeting and introduced Dan Coyne, who will be taking over as the president and program manager for IEC. He said he appreciated the last three years and said it has been wonderful to keep the CAB and the public updated on what they are doing, why they are doing it, and the progress that has been made.

Dan Coyne, IEC, introduced himself and said he was happy to be back home in Idaho where his kids and grandkids are located. He said he did some time previously at the Idaho Site and worked on many milestones there. He said he looks forward to the opportunity to continue the noble mission to protect the environment and the aquifer.

Recent Public Outreach

Danielle Miller, DOE-ID, reviewed recent public outreach activities. The document is available on the ICP CAB website: <https://www.energy.gov/em/icpcab/articles/icp-cab-meeting-materials-october-2024>

ICP Overview

Doug Pruitt, Jonnie Zobell, Nicole Brooks, and Nick Balsmeier, DOE-ID, provided an overview presentation highlighting ICP activities and performance. The presentation is available on the ICP CAB website: <https://www.energy.gov/em/icpcab/articles/icp-cab-meeting-materials-october-2024>

Teri Ehresman asked for more information on the Occurrence Reporting and Processing System (ORPS) reportable incidents. Zobell said two events were related to crane usage. He said one was using an auxiliary crane without having the annual inspection done, an oversight which was quickly caught and rectified, and the other was a damaged wire rope found on another crane. He said another incident was that DOE self-identified that they were not up to compliance in some areas and reported those to DEQ. He said they received a letter from DEQ which triggers the ORPS reporting criteria. Another incident involved a person burning the top of their hand with a radio frequency welder.

Bob Skinner asked if they were using the existing polar crane. Brooks confirmed that the crane was able to be refurbished and reused.

Monica Hampton asked for more information about worker safety regarding contamination in the area and why workers only had chainsaws and respirators and not full protective suits. Eric Larson emphasized that the reactors have been defueled and the navy keeps their facilities very clean, radiologically. He said most areas in those prototypes do not require any kind of radiological protection. Referencing the part of the video with the chainsaws, he said the prototype for the Nautilus was the first prototype the Navy built in the early 50's. He explained that there was not a lot of information available about how it was built so they were surprised to find lead shielding around the reactor. He said the workers had to use electric chainsaws and appropriate protective equipment to cut the lead into manageable chunks and remove it. He said that IEC has a very robust worker safety and health program and everything they do is evaluated. He said if they come across anything unexpected, they step back, stop work, and reevaluate to make sure to keep workers safe.

Talia Martin asked if the 80,000 gallons of processed fuel is only referring to the radiological waste or if it includes simulant. Balsmeier said each time the facility starts up, they begin with a blend of simulant and sodium bearing waste. He said the mixture is run for generally a week or less and then they transition to 100% sodium bearing waste. He said simulant is needed to start up the facility and likened it to putting lighter fluid on a charcoal grill to get it started. He said the simulant is a very small percentage of the actual product and is not counted in the reported volume of processed waste.

Ten-Year Plan and Budget Overview

Jennifer Cate (DOE-ID) provided an overview highlighting recent updates to the plan outlining ICP scope for the next ten years. The presentation is available on the ICP CAB website: <https://www.energy.gov/em/icpcab/articles/icp-cab-meeting-materials-october-2024>

Ehresman asked if this new method of doing things is working smoothly after three years, and if they have any lessons learned. Cate said she would be talking more about that in her further slides, but the short answer is yes.

Skinner asked if DOE-ID is going to be involved with packaging and making the Fort St. Vrain fuel road ready. Mark Brown said that the Idaho Settlement Agreement stipulates that all the spent fuel in Idaho must be packaged before they can bring any Fort St. Vrain fuel over from Colorado. Skinner asked if DOE-ID will be controlling the financial process once the fuel can be brought here. Brown said that they would.

Martin asked if the contractor is being evaluated in a pass/ fail type of evaluation and if they are penalized for receiving an unsatisfactory evaluation. Cate said there are four evaluation categories required for all federal contractors. She said they also include regulatory compliance and facility operations and safety. She said it's not pass/fail but it is reported into a database and past performance is heavily evaluated by the federal government when procuring work. She said if IEC bids on another contract, that office will pull the report and see their ratings. She said the contract also has a performance management incentive, where the contractor can earn an additional incentive based on exceptional performance. She said if the contractor falls below satisfactory levels, DOE-ID can issue a fee reduction. She said, if DOE determines, the contractor also has an opportunity to develop a corrective action plan to fix the issue and potentially earn some or all fee that was withheld.

Skinner asked if the contractor gets to see the evaluations throughout, or if it is only given to them at the end. Cate said they do a quarterly project status review where the contractor provides its own self-assessment and DOE provides an assessment. She said they are doing the 4th quarter FY24 project status review in 2 weeks. She said there are times when the IEC and DOE assessments don't agree, but the project status review is a setting where they can sit down together and talk about any issues. She said once the draft report is written, the contractor has an opportunity to do a factual accuracy review. She said the contractor is also able to provide their own comments once the report is in the system. She said opinion is kept out of the report and it is all factual.

The CAB discussed the potential to submit a recommendation regarding DOE's ten-year budget plan. Martin said she thinks it is important to take note of the accomplishments and that they have been under budget on some activities. Skinner asked what happens to money that is left over when something is completed under budget. Cate said that money for line-item scope or capital projects where the funding is specifically for that work must go back to headquarters if completed under budget. She said other scope, if it's a cost-plus incentive fee task order such as the Radioactive Waste Management Complex (RWMC) closure, gives the contractor the opportunity to earn 30% on the dollar of anything that's under run. She said working with the contractor, DOE looks at priorities to put the extra savings toward additional scope. She explained using the scenario of the Accelerated Retrieval Project (ARP) decontamination and decommissioning (D&D) coming in 10 million dollars under budget. She said the contractor would earn their 30% on the dollar, and DOE can then put the 7 million dollars leftover towards additional scope.

Debi Farber volunteered to draft a recommendation that captures recognitions and prioritizations, to bring to the next CAB meeting. Ehresman volunteered to review.

Idaho CERCLA Disposal Facility (ICDF) Progress Update

Amin Almahie, DOE-ID, provided a presentation reviewing the current construction status and outlook of the ICDF. The presentation is available on the ICP CAB website:

<https://www.energy.gov/em/icpcab/articles/icp-cab-meeting-materials-october-2024>

Farber asked what measures are implemented to ensure stockpiled material doesn't blow away in the wind or wash away. Almahie said the edges are logged and stabilized and the water runoff is managed. Farber asked if there is anything that prevents material from blowing away in the wind. Almahie said that to his knowledge there is nothing covering the material, but he will check.

Skinner asked if this facility is a completely separate entity from the other facility with different rules and permits. Almahie said they are physically separate, but the operational procedure and permits are the same.

Nate Francisco asked if they stockpiled topsoil separate from fill material for the cap so that they have a vegetative layer. Almahie confirmed that they did.

Tami Thatcher asked if both evaporation ponds are already in use and where the liquid radioactive waste going into them is coming from. Almahie said the leachate is coming from the rain and the water that is going through the waste which is collected and bound to the evaporation ponds.

Hampton asked if the change in orientation of the evaporation ponds was a change in the footprint or just the sump and crest pad. Almahie said the change was the bottom slope. He said in cell 1 the slope is from south to north and in this new cell it is from west to east.

Public Comment Session #1

Tami Thatcher said that taking down the ARPs was expensive and dangerous and released a lot of airborne radioactivity. She said the focus was to exhume a very small amount of targeted, chemically laden waste. She said the lion's share of all the americium and other radionuclides are staying perched over the aquifer and able to leach in. She said the graphic shown of the subsurface disposal area did not clearly show the raised area of stacked barrels that were never disposed of or moved, and glossed over a large problem that the soil cap depth is required to be enormous. She said DOE seems to avoid stating in a straightforward manner that the maximum depth of the soil cap is going to drive up the cost and require 30 feet of soil to be brought in. She said they have a stack of barrels that are too dangerous to remove because DOE decided to stack the nitrate uranium laden waste above ground instead of burying it. She said that she didn't appreciate how that issue was glossed over. She said it was good that DOE pointed out there are 10 thousand drums of above ground waste. She said the difficult waste is the last to be dealt with and there is a lot of work to do.

She said IEC sent drums leaking radioactive liquid material to the Waste Isolation Pilot Plant (WIPP) which is not allowed and not a new requirement. She said Idaho was loading very heavy drums with the compacter and not using enough liquid absorbent which caused the drums to corrode through quickly even though they were not very old. She said the ownership of that problem needs to be recognized. She said there was not a new regulation from WIPP that created more concerns about container integrity. She said there were problems on Idaho's end because they sent corroded drums that they knew were corroded. She said this forced WIPP to have an evacuation, send drums back to Idaho, and tell Idaho to figure out why they sent leaking drums.

She said the presentation on CPP 603 was very concise. She said she appreciated that it pointed out the Idaho Settlement Agreement milestone of January 1st, 2025, to remove the spent nuclear fuel from Idaho. She said the fact that the process to repack the fuel won't be complete for decades after 2035 is carefully omitted. She said it will not be completed for decades beyond the Idaho Settlement Agreement milestone and the calcine will not be completed for decades past the milestone.

CERCLA Overview

Nicole Brooks, DOE-ID, provided an overview of CERCLA sites with a focus on groundwater. The presentation is available on the ICP CAB website: <https://www.energy.gov/em/icpcab/articles/icp-cab-meeting-materials-october-2024>

Francisco asked how the drinking water standards on the downstream side compare with the background concentrations on the upstream end of the site, and if they are comparing those background concentrations to see if any of that detected contamination is coming from the site or potentially other sources, such as nitrate from farms. Brooks said they do evaluate that. Regarding the nitrate example, she said they look at the wells in central because that is where they have the nitrate plume. She said they

look at groundwater pathways and flows to try to determine where the contaminants could be coming from. She said one of the reasons for the Waste Area Group (WAG) 10 record of decision is to evaluate and see if there are any commingled plumes that could cause a cumulative health effect.

Francisco asked if more of those constituents are leaving the site than are coming onto the site at the background wells. Brooks said there are not. She said none of the contaminants of concern being monitored are above drinking water levels. She said she needs to check if anything is detected at detection limits, which is well below drinking water standards. She said those are evaluated as well, to see if any are coming from a specific source.

Francisco asked if they have wells of differing depths to sample from the entire vertical. Brooks said they do have wells at different depths that they monitor. She said that since it's a fractured basalt subsurface, it is very difficult to predict groundwater flow and treatment outcomes.

In regard to the listed reporting where the annual reports are available, Farber asked if the 5-year reviews are also available. Brooks said they are available, and they just ended the cutoff date for the evaluation to begin for the next 5-year review, so they will be presenting that to the CAB again in the next year.

Skinner asked if the various entities that conduct sampling split samples or if they each conduct their own individual sampling. Brooks said she would have to verify, but she believes that they each take their own samples. She said that the United States Geological Survey takes their own samples, but she is unsure if DOE-ID splits samples with IDEQ. She said BEA takes their own samples as well. Skinner asked if they compare their results with other sampling entities. Brooks confirmed and said that the reason they take independent samples is to verify that DOE-ID is getting accurate and consistent results.

Dick Meservey asked why the contaminated water at Test Area North (TAN) hasn't been flushed out or diluted on its own after so many years. Brooks said that plumes do expand, migrate and disperse, but the flows in the TAN area are migrating downwards. She said you can see in the monitoring results that the highest concentrations used to be in one area and are gradually making their way down. She said as the treatment is implemented, they pump water out, treat it and discharge it downstream, the flux of the trichloroethylene (TCE) as it comes down toward the plume is reduced. She said they verify that it's at the maximum contaminant level at the edge of the plume. She said the plume has expanded by about 17% since the beginning of the treatment.

Skinner asked for more information about the perched water. Brooks said the perched water is interesting. She said the hope is that the radionuclides in the perched water will sorb to the soil and decay. She said if there isn't a source of infiltration to drive those contaminants from the perched water to the aquifer, then they will stay, sorb to the soil, and decay. She said that the goal of the remedy for WAG 7 and WAG 3 is to prevent infiltration or prevent the source of water from driving those contaminants into the aquifer and keep them in the subsurface.

Permann said that the aquifer levels have dropped fairly substantially over the last five years, but the monitoring shows that things are staying about the same. He asked if that suggests that the plume is being reduced and would show as such, were the aquifer levels to remain as high as they were 10, 15, or 20 years ago. Brooks asked which WAG Permann is referring to. Permann said he was referring to the TAN area. Brooks said that water levels are declining but they still have wells at the necessary depths to continue to sample. She said they are only having difficulties sampling because of declining levels at WAG 4 and perhaps a few wells of WAG 3. Brooks said she would have to ask her technical experts to see if the declining water level is really causing a difference in dilution, but she expects that there is so much water in the aquifer that it wouldn't make a difference. She said there is a transmissivity issue where sampling can be affected by flows. She gave the example that in a wet water year, they might see a

spike in contaminants at a well if there was a lot of flow through that area. She said that does happen sometimes.

Mesurvey asked how much fluctuation they see in the aquifer level. Brooks said she thinks they have seen a decline of about 20 feet at TAN, but she would need to verify to get an exact number. She said WAG 4 has seen the biggest decline

Skinner asked what the average flow rate of water moving through the aquifer under the site is, and how long the water takes to travel from the site to Thousand Springs. Brooks said it ranges from about 1.5 to 10 feet per day. She said it takes 150-250 years to travel from the INL to Thousand Springs.

S5G Engineering Evaluation and Cost Analysis

Eric Larsen, DOE-ID, and Chris Henvit, Naval Reactors (NR) Idaho Branch Office, provided a presentation on the likely option for D&D of the S5G prototype. The presentation is available on the ICP CAB website: <https://www.energy.gov/em/icpcab/articles/icp-cab-meeting-materials-october-2024>. The presentation and the comment opportunity afterward served as the public meeting for the Engineering Evaluation and Cost Analysis process.

Referring to the increased volume that would be disposed of in the ICDF in Alternative 4, Francisco asked if the cost of space that would be taken is included in the cost estimates. Larsen said the cost of disposal is calculated in the estimate. He clarified that there are hazardous materials that would have to be disposed of elsewhere so not all the waste transports would go to the ICDF. He said anything that does not meet the waste acceptance criteria for ICDF would go to a demolition landfill or get recycled. Francisco asked if, regardless of where it's going, the disposal cost is included in the estimate. Larsen confirmed that it is.

Francisco asked for clarification on what type of materials would be warehoused. Larsen said they are in the early stages of studying how they can use the facility when it is returned to NRF. He said their assumption had previously been that they would be demolishing the entire building. He said warehousing was referring to supplies and material equipment needed to support their ongoing operations. He said they need an environmentally controlled area to store the material until it's needed. He said they do currently have a warehouse with a utilization rate of about 98% which is very inefficient, so this could perhaps expand their warehousing operations. He said it is all conceptual at this point, and no final decisions have been made.

Francisco said Alternative 4 makes the most sense because it increases safety and lowers costs and seems straightforward.

Skinner asked if they would be using an elevator or a crane to get things down into the floor. Larsen said there are two cranes currently in the facility, and NR is going to let Environmental Management (EM) borrow one of them for the demolition work. Skinner asked what they will use after the demolition is complete. Henvit said the floor will be ground level and the facilities two cranes will be available to support operations after EM returns the building to NRF. Skinner asked if there is other ancillary equipment such as heating, that will need to be removed as well. Henvit said the equipment above grade that will need to be removed are the reactor fill systems and the diesel fill generators that were used to support the prototype operations. He said a lot of the equipment shown in the photo is just for utilities that support electrical power to the building and all of that would remain in place.

Farber asked what type of findings would trigger long term monitoring. Larsen said once all the hazardous material is removed, they will do surveys which will be part of a survey plan that is submitted to the agencies to confirm that they have met the removal action objectives and confirm there are no

levels of contaminants that would violate those objectives. He said the agencies concur. Because they haven't done these types of surveys yet, he said they don't know what they will find, but with removal of the entire prototype, they expect the surveys will show nothing left and the basin will be filled. Henvit said that under Alternative 3, material would be left in place 10 feet below grade. He said CERCLA allows this as long as you can demonstrate that leaving it in place is protective of human health, but they would be required to do ongoing monitoring to ensure that it remains protective. He said under Alternative 3, the expectation is that it would become a CERCLA site and require institutional controls to make sure there is no inadvertent exposure to workers or to the environment. He said under Alternative 4; everything is removed so it would likely not become a CERCLA site.

Permann asked if the current status of the area is a Radiological Buffer Area (RBA) and what type of cleanup and remediation is there for heating, ventilation and air conditioning, etc. Larsen said all the systems that supported the prototype when it was in operation will be remediated. He said they will be removed as part of the non-time critical removal action and appropriate steps will be taken for worker safety. He said it is currently considered an RBA. Henvit clarified that the specific area that NRF will be turning over to EM is not managed as an RBA today. He said the 1st thing that IEC will do once they receive it from NRF is characterize the area and then control it per DOE requirements which differ from NRF requirements. He said he doesn't know how DOE will be controlling those areas because they have not yet characterized them.

Meservey asked when they consider leaving radioactive materials in place, if they look at things like the number of isotopes that will decay to background levels in a specified amount of time. Larsen said that is part of the risk evaluation. He said both the radiological and hazardous risk evaluations can be found in the administrative record of the evaluation. He said most of the materials at risk are activated metals from the defueled reactor vessel and are still controlled in some areas. Regarding Permann's question about RBAs, Larsen said he was thinking of the controlled metals. He said under Alternative 3, the reactor vessel, which is below 10 feet, and some of the lead protective shielding would be left in place. He said under Alternative 4 everything including the reactor vessel, and the lead would be removed. Henvit said that because of the nature of the naval reactor plants, over 99% of the radioactivity is contained within the reactor vessel. He said under alternative 4 the reactor vessel would not remain in place, so the vast majority of the radioactivity would be removed.

Skinner asked if it would be beneficial to the process if the CAB put forth a recommendation supporting Alternative 4. Mark Brown asked if it would be beneficial to give a recommendation, or if the CAB should just state for the record during the meeting, what their recommendation is. Larsen said that either way is fine and they accept all input from the CAB, the public, and tribal stakeholders now or in the future.

The CAB stated for the record that as a citizen's advisory board, they unanimously support moving forward with alternative 4.

As part of the public meeting, a 15-minute public comment session was held for both virtual and in-person attendees. No one present in person made comments. One person, Tami Thatcher, participated virtually.

Thatcher said that counting this presentation as a public meeting is very problematic to her because there was very little advertisement. She said participants had to be signed up many days in advance, so people couldn't find out about it the day before and tune in. She said because the meeting was held in Sun Valley, there is no population present to attend the meeting in person. She said there was a lot of stealth involved in how the meeting was not announced or advertised and a limited 15 minute total was given for questions. She said that was inadequate to discuss the ICDF, the lead and other aspects. She said that, well known in radiological protection, cancer risk is one of the primary concerns. Looking at

2022 cancer statistics, she said that roughly 4 in 10 people will get cancer in the United States general population. She said she wonders if people at NRF know that a study of 65,000 naval personnel was conducted and outside experts concluded that their cancer risk was 9.2 times higher than the national population, despite their very low average radiation doses. She said she wonders why the Navy doesn't study or talk about that.

The final 5 minutes of the public comment session was observed in silence as no additional commentators came forward.

Proposed Extended INL Site Hunting Boundaries

Nicole Brooks and Craig Richins (DOE-ID) provided a presentation on the proposed hunting boundary expansion and its impact on wildlife management. The presentation is available on the ICP CAB website: <https://www.energy.gov/em/icpcab/articles/icp-cab-meeting-materials-october-2024>

Farber asked if the increase in damage claims that started around 2022 has been directly correlated to animal populations or if there are other potential contributing factors. Richins said they go through a very specific claim process when an agriculturist says they have been damaged. He said each claim is investigated by Fish and Game and they see if specific animal damage has occurred. He said that some of the worst damage occurs on corn crop because the animals tend to knock down the corn to eat the cobs. He said if crop disappears, there must be proof that the crop was there in the first place. Farber asked if herd population growth increased around that time. Richins said it has been a gradual increase, if we assume that herd strength is proportional to depredation claims, there has been a tailing up since the mid 2015 timeframe. He said they are seeing tremendous herd strength increases in some areas. He said there are herds of about 6,000 animals moving in south of the site, potentially coming out of Wyoming. He said in his personal experience working with ranchers and managing the grazing areas that are part of INL's stewardship, he has seen 4 or 5 hundred antelope in an agricultural field at a time.

Francisco asked how the new hunting boundary was determined. Richins said when the state approached DOE, they were interested in moving the entire northern part of the site into the hunting boundary. He said determining the boundary was a two-fold process based on Fish and Game expertise and buffer recommendation and then matching that with a boundary that would be appropriate from a security and safety standpoint.

Francisco asked what the financial and operational impact will be for security and signage or whatever else is necessary to expand the boundary. Richins said one of the major costs will be the signage. He said their security forces aren't actively patrolling. He said Fish and Game officers patrol specifically for the hunt. He said the security officers at INL are aware of the hunting boundary and watch for incursion, but they don't see the boundary change as significantly affecting the cost. He said they don't anticipate adding any additional security forces. He said from a security standpoint they want to discourage incursion into the area so signs will be placed line of sight. He said this means that if you are standing at any sign, you will be able to see the next sign to the left and to the right, so on hills or where line of sight is limited, the signs will be placed fairly close together. He said they want to make sure people understand that they cannot go beyond that point. Francisco asked if they have a cost estimate. Richins said they have not put the estimate together but in general they do have a fund that pays for signage and road maintenance, and they believe it is adequate to cover the cost for the new boundary.

Francisco said that most crop loss deterrent hunts that have been put in place over the last few years are set within one mile of irrigated agricultural land. Given that, he asked why a larger buffer makes sense in this case. Richins said that Fish and Game are the experts, but as it was explained to him, the goal is to

change the habits of the animals themselves. He said the officers who patrol the area see the animals will just move a few hundred yards beyond the current boundary and sit and wait for hunters to go away. He said the intention is to press the animals, so they must change the way they think and how far they have to travel. He said a 2–3-mile boundary creates a bigger travel pattern and forces animals to move at a more rapid pace, earlier in the morning which translates to less damage to the crops.

Francisco said that there was a crop loss deterrent hunt that included part of the expanded boundaries that was removed a few years ago. He said, to him, the hunt removal suggests a decline in populations or crop loss payouts. He asked if Richins had any feedback on that. Richins said he did not have specific knowledge about that, but it does vary year by year. He said they meet with Fish and Game on an annual basis to review their needs and try to match up as best as they can.

Martin said that there is overlap of the proposed boundary with some of the low areas of institutional control and asked if DOE is considering moving the boundaries to remove that overlap. She said there is a concern for letting the public into those areas because they could be exposed. Richins said this was something they discussed for about a year and half. He said they have gone back and forth on it. He said the Mud Lake area is the biggest area that intrudes into the circular buffer. He said there are specific landmarks within that area that will become a refuge for the elk and they really need to push them beyond those refuges to create a new habit, otherwise they won't see a decrease in depredation. Richins referenced a point on the map where highway 33 passes through the site. He said that Brooks found, in her investigations, that munitions have never been found north of that site. Based on that, Richins said they were able to come to the decision that it should be safe to include it in the hunting area. Even so, he said that hunters will have to be certified through a web-based course on munitions. He said if DOE does end up getting reports of munitions they will have to make an adjustment. He said there are other areas where they were unable to compromise, even in places where Fish and Game had significant concerns. Martin said her concern is if they put depredation issues over safety, but she understands that this will be reviewed yearly and could change if need be.

Martin asked if there are plans to do cultural resource surveys in the areas that hunting will be expanded to. Richins said there will be expanded cultural work in those areas. He said they also removed the Birch Creek area from the expansion because it is tremendously sensitive from a cultural standpoint. He said that all the hunting that will be expanded is occurring on current cattle grazing allotments, so all those areas were cleared previously through BLM. He said there are a couple of places where they want to consult with the tribes and take a better look at, and if they find something significant, they will exclude it from the hunting expansion or protect it in some way.

Martin said in the past, tribal elders have talked about how there used to be hunting allowed, and then there wasn't. She said there have been proposals and requests by the tribes, to expand hunting areas which have been denied. She said tribal members have inherent treaty rights that should supersede these types of agreements. She said she thinks it is important to acknowledge that this was requested in the past by tribal individuals and for people to know that this isn't just about landowners or agriculture, but it is important to all hunters and the tribal ancestors. Richins recognized Martin's comment and said that DOE is aware, but it is a conversation that falls to the state.

Skinner said there is a concern with the speed of response times for the security forces to come retrieve an animal if it goes beyond the boundary and dies. Richins said, in the past with the half mile boundary, hunters could call a number included with the permit and the security forces would come locate the animal and retrieve it from beyond the boundary. He said with the new boundary they believe that hunting will change quite a bit. He said instead of hunters shooting outward toward the INL from the agricultural side, many of the hunters will be on the other side shooting in different directions. He said

from a security standpoint, they cannot allow anything beyond the new boundary, so if you are pursuing a wounded animal and it passes the new boundary, it's considered lost.

Francisco asked if the required hunter training will be developed by the Fish and Game or DOE. Richins said the training comes from the military and is a nationwide process. He said it is a rigorous course that has been developed over a number of years. Francisco asked who would be developing the other components besides the munitions training such as instructions for if you find a cultural resource. Richins said they aren't developing cultural trainings that explain what to look for, it is just information included in the permit that says who to notify if the hunter sees something. Richins said it is published by Fish and Game.

Farber asked if there was a way to quantify the depredation claim relief vs the cost to DOE to do the work of changing the Record of Decision and other administrative tasks. Brooks said there is a way to quantify it, but she doesn't think there are plans to do it. Brown said in general, the work that must be done to support this effort is existing resources. He said those people are already employed, so they could try to track hours, but he doesn't think there is much value in doing that. He said the cost for the signs, is an additional cost but will be done within the current sign budget.

Martin asked when the public comment period ending date is. Brooks said it hasn't yet been issued for public comment, but the end date will be 30 days from when it is issued. She said it should be issued within the next few days.

Martin commented that she thinks it is important to know what the cost to taxpayers is, even if it is a relatively small amount for signs.

Francisco added that this action will increase costs because there is no guarantee that the state's costs will go down in the future, and they likely won't. He said now we are putting costs on the federal side and the state side to solve the same problem.

Public Comment Session #2

Tami Thatcher of Idaho Falls said she was a nuclear safety analyst at the INL. She said her grandparents lived in Howe and her family remembers seeing film badges and dosimeters on her grandmother's white picket fence back in the fifties and sixties. She referenced the question she asked in the earlier portion of the meeting about the evaporator ponds that have been added to the ICDF. She said the answer she was given, that leachate is being put in the evaporator ponds, was not adequate.

Thatcher asked if the leachate is coming from the RWMC or somewhere else. She asked if it is newly generated waste. She said if it was not contaminated with radionuclides, it would just be flushed down a drain and an evaporation pond would not be necessary.

Thatcher said that it is somewhat amazing that the Integrated Waste Treatment Unit (IWTU) is operating again. She said to not forget that there is no way to characterize that project as below cost estimate or on schedule. She said it was supposed to be done in 2012 and the fines are \$6,000 per day until work is complete which is going to take many more years. She said that we learned this summer that IDEQ determines to a large degree where a significant portion of the millions of dollars that DOE is being fined, goes. She said several million dollars went to the Idaho Department of Water Resources (IDWR) for unspecified monitoring not related to the INL. She said she would like to know why that is of public benefit. She said she thinks it is probably benefiting a few mining companies and asked DEQ if they would like to publicly share information about the benefit the millions of dollars of Supplemental Environmental Project money given to IDWR has for the public.

Thatcher said that she asked at the meeting last summer when the TAN pump and treat was conducted, if volatile organic compounds (VOC) were monitored, and if radioactivity released by the pump and treat was monitored. She said she did not receive an answer during the meeting but quite a bit later she received an answer that they don't monitor VOCs or radioactivity from the TAN pump and treat. She said she was told that unless it was 10 milligrams per year to the public, then it doesn't matter. She said that it is simple to talk about whole body doses, but organ dose matters. She said all the counties surrounding the INL have twice the incidence of thyroid cancer than the rest of the country. She said the data is available on the Idaho Cancer Registry and anyone can look up the reports if they know where to look. She said thyroid organ dose matters because whole body dose doesn't tell you what's happening to people's thyroids.

She said that DOE provided her with some answers about Mackay Dam in which they pointed to some older studies where they had incorrectly assessed the Mackay Dam failure rate risk. She said DOE continues to use outdated and incorrect assessment of the risk of Mackay Dam failure. She said the Idaho Nuclear Technical and Engineering Center where CPP 603 is located and the IWTU are on the Big Lost River floodplain. She said a Mackay Dam break is not mitigated by a diversion dam. She said the studies DOE responded with were totally obsolete and used incorrect information.

EM Site Specific Advisory Board (SSAB) Meeting update

Bob Skinner (CAB chair) and Debi Farber (CAB Vice-Chair) provided a summary of the Fall 2024 EM SSAB chairs meeting in Oak Ridge, Tennessee.

Conclusion

Jeni Goff concluded the public portion of the meeting.

Bob Skinner, Chair
Idaho Cleanup Project Citizens Advisory Board