WHITE MESA URANIUM MILL SITE LICENSING

PUBLIC HEARING

WHITE MESA HEARING - 6/8/17

Alpine Court Reporting
Locations in Salt Lake City and Provo
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PUBLIC HEARING

Proposed licensing action to renew the Energy Fuels Resources (USA) Inc. (Licensee) 11e.(2) Byproduct Radioactive Material License (RML UT1900479) and the Groundwater Quality Discharge Permit (Permit UGW370004) for the White Mesa Uranium Mill site near Blanding, San Juan County, Utah

June 8, 2017

1:02 p.m. - 5:13 p.m.

** Bracketed words [*] are corrections provided by the Division.

Reported by: Emily A. Gibb, RPR, CSR, CCR

A P P E A R A N C E S

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PANEL TO ANSWER QUESTIONS:

Gwyn Galloway

Tom Rushing

Russ Topham

Ryan Johnson

Phil Goble

Bret Randall, Esq.

Craig Anderson, Esq.

David Frydenlund

Harold Roberts

Michael Zody, Esq.

Jon Luellen

Gary Merrell

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I N D E X

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P R O C E E D I N G S

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MR. ANDERSON: Okay. Well, let's get started. My name is Craig Anderson. I'm the hearing officer for this afternoon's proceedings. This is the time and place scheduled for the question-and-answer hearing on licensing actions proposed by Utah Division of Waste Management and Radiation Control.

The licensing actions that we'll be discussing this afternoon deal with the renewal of the 11e.(2) byproduct license and the ground water discharge permit relating to the White Mesa Uranium Mill near Blanding in San Juan County. The mill is owned and operated by Energy Fuels Resources. This licensing action also includes a request by Energy Fuels to receive as alternative feed certain byproduct materials from Sequoyah -- that's S-e-q-u-o-y-a-h, for the court reporter -- Fuels.

The purpose of this hearing is a little bit unusual and varies from most of the hearing procedures that we usually follow here. This is limited to a question-and-answer hearing, and it is implemented to satisfy the requirements of the

Federal Atomic Energy Act that requires that agreement states provide an opportunity for cross-examination for major permitting actions.

The former radiation control board adopted procedural rules to meet this requirement, and they're found in Utah Administrative Code R313-17-4. That provision of the Administrative Code sets forth the procedures and the requirements and the basis for this particular proceeding.

Under these rules, only persons who have previously submitted written questions will be recognized and allowed to ask questions during today's hearing. The scope of the questions will be limited to matters relevant to the licensing actions that I mentioned just a moment ago.

Staff from the Division and the Division's contractor and representatives of Energy Fuels are present and will be answering the questions that will be propounded [proposed] this afternoon.

One of the major limitations that we're looking at today is that under the rules, the hearings are normally not to exceed three hours. Today's hearing, however, has been scheduled for four hours due to the extensive number of questions that have been submitted in advance. So we are hoping to

be able to conclude by 5 p.m. this afternoon. A number of our participants have flights to catch this evening, so I'm hopeful that we'll be able to get through all of the questions and wrap things up around 5 p.m. But that's the timetable for -- for the hearing today.

As I mentioned, the following parties have submitted written questions as provided for the rules and will be heard in the following order: Greenaction, Grand Canyon Trust, and following Grand Canyon Trust, depending upon where we are question wise and time wise, we'll probably take a short break.

And then following the break, Ute Mountain Utes [Ute Mountain Ute Tribe] will be recognized, and then following Ute Mountain Utes [Ute Mountain Ute Tribe], Uranium Watch.

This hearing is being recorded and transcribed by our court reporter. The transcript will become part of the administrative record. And a couple of ground rules regarding our reporter. In order to have a clear record, it's important that the questioners and respondents not talk over each other. That allows the court reporter to get everyone's statements down and not try and sort out who's

talking at what time.

In addition, a number of the questions that have been submitted are compound, meaning that there are several questions contained within a question. And for this reason, I'm going to ask the questioners to wait for a response to each discrete question before moving on to the next part of their question so there's a clear record of the question and the response.

Also, since the questions have been submitted in advance and are already in the record, it will not be necessary to make any kind of narrative statement or introductory statement before moving into the question. We would request that you go directly to the question and not include any type of an opening statement.

As previously noted, due to the number of questions, it is not anticipated that there will be sufficient time for general public comments to be received today. However, a public comment hearing [meeting] is set on June 15th at 5 p.m. in Blanding. In addition, the Division will accept written comments through July 31st of 2017. So members of the public who wish to comment can appear at the public hearing in Blanding and also may submit

written comments that must be received on or before July 31, 2017.

So with all that said, I'd like to invite the parties to state their appearances for the record, and then we'll get into the questions and answers.

So I'm Craig Anderson. I'm with the Utah Attorney General's Office.

MR. RANDALL: I'm Bret Randall. I'm also with the Utah Attorney General's Office. I'm here as counsel for the Division and ...

MR. GOBLE: I'm Phil Goble. I am the Uranium Mill's and Radon Materials section manager for the Division of Waste Management and Radiation Control.

MR. JOHNSON: I'm Ryan Johnson. I'm with the Division, environmental scientist and project lead.

MR. TOPHAM: Russ Topham. I am an environmental engineer with the Division.

MR. RUSHING: Tom Rushing, environmental scientist with the Division.

MS. GALLOWAY: I'm Gwyn Galloway, environmental scientist for the Division.

MR. MERRELL: I'm Gary Merrell with URS.

I'm a contractor to the Division and participated in the development of the SER.

MR. LUELLEN: Jon Luellen with URS as well. Similar role on the project, helped develop the SER and helped do the submittal documents.

MR. ZODY: I'm Michael Zody. I'm an attorney with Parsons Behle & Latimer law firm, legal counsel for Energy Fuels.

MR. FRYDENLUND: Dave Frydenlund, senior vice president, general counsel, and corporate secretary of Energy Fuels.

MR. ROBERTS: My name is Harold Roberts and I'm a former executive and officer of Energy Fuels Resources and currently a consultant for the company.

MR. ANDERSON: Okay. With the introductions done, we're going to ask that each of our questioners step to the table and submit their question at the microphone so that it can be recorded. We have Bradley Angel as the individual who submitted questions.

Mr. Angel.

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MR. ANGEL: Good afternoon. My name is Bradley Angel, and I submitted questions on behalf of the organization for which I'm executive director of,

Greenaction for Health & Environmental Justice on behalf of our constituents at the White Mesa Ute community and the surrounding communities.

And just for the record, on the agenda it has our name as Green Action two separate words. That is not our name. And I hope there's more attention to detail and facts in your decision-making process.

Question No. 1: What laws and regulations apply to and are used by DEQ and the Division in permitting and license decisions for the White Mesa Uranium Mill?

MR. GOBLE: So for the groundwater permit, it's the Groundwater Protection Rules, which is R317-6, and that is under the Utah Water Quality Act, Title 19, Chapter 5.

For the radioactive materials license it's Radiation Control Rules R312, 14, 15-- oh, sorry, R313-12, 14, 15, 17, 18, 19, 22, 24, and 70. And the Utah Radiation Control Act is 19-3.

MR. ANGEL: And that's the complete list that the permit decision is based on?

MR. GOBLE: Yes, sir.

MR. ANGEL: And is that the complete list that in terms of applicable laws is considered in

your decision?

MR. GOBLE: Yes, sir. Because what the federal rules are referenced are actually referenced in the rules, so yes.

MR. ANGEL: And so --

MR. GOBLE: We as an agreement state are basically the NRC for the rollover over [regulatory] uranium rules for oversight.

MR. ANGEL: Right. And so it's -- the Divisions and DEQ's contention that there are no other laws that need to be considered are applicable to this decision?

MR. RANDALL: I'm going to object because that calls for a legal conclusion.

MR. ANGEL: Okay. I'll ask the question differently.

Does your agency -- so just to confirm what Mr. Goble just said, you provided the full list of laws in consideration of this decision, right, to make a decision?

MR. GOBLE: There are NRC guidance documents, regulatory guides, we follow those as well.

MR. ANGEL: Right. And -- okay. Great.

But in terms of laws.

MR. GOBLE: Yes.
MR. ANGEL: Okay. So there was another law I was wondering why it's not on the list.
Is the Department and Division aware of Title VI in the United States Civil Rights act of 1964?
MR. RANDALL: I object because that question was not submitted previously in writing as pursuant to our rules.
MR. ANGEL: I'll reframe it.
Title VI of the United Stated Civil Rights Act of 1964 is not one of the laws that you stated was applicable to your decision; is that correct?
MR. RANDALL: Can we move on to the questions that were presented.
MR. ANGEL: This was a question presented. I'm just clarifying. I asked what laws and regulations applied to this decision. So I'm just clarifying that Title VI is not one of those ones mentioned in your response.
MR. RANDALL: No, not directly, but the question has to do with the licensing action.
MR. ANGEL: Absolutely.
MR. RANDALL: So it doesn't directly apply to the licensing action.

MR. ANGEL: Well, it actually does, sir. With all due respect, I believe Utah is in the United States of America, and this is not rhetoric, sir. Title VI of the United States Civil Rights Act applies to all states. And so --

MR. RANDALL: So we can list the United States Constitution and Utah has a constitution.

MR. ANGEL: That's right. Let's move on.

What is -- 2: What is the closest community to the White Mesa Uranium Mill?

MR. GOBLE: The White Mesa Ute Mountain Ute Tribe community is 4.5 miles away.

MR. ANGEL: And then is there a reason that in the opening when the June 15th hearing was announced that the reference was to Blanding and not to the White Mesa concerned community, which is clearly the closest community?

MR. ZODY: Object. That's not a -- question seems to be argumentative to me.

MR. ANDERSON: Sustained.

MR. ANGEL: Well, I believe you answered Question No. 3, how close is it to the boundary. So thank you.

Is that correct, Mr. Goble?

MR. GOBLE: To the boundary, yeah.

MR. ANGEL: Okay. Thanks.
Question No. 4: Do air emissions, including from the stack, piles, or any other source leave the mill boundary?
MR. JOHNSON: Yes. However, the environmental monitoring indicates that it's below regulatory limits.
MR. ANGEL: That wasn't my question. But it leaves the boundary.
MR. JOHNSON: Yes.
MR. ANGEL: Thank you.
And have any contaminants whatsoever left the boundary?
MR. JOHNSON: Same as before --
MR. ANGEL: Yes.
MR. JOHNSON: -- yes, but they are below regulatory limits.
MR. ANGEL: Question No. 6: Does DEQ acknowledge the presence of a large number of archaeological and culturally significant sites within and adjacent to the mill boundary?
MR. GOBLE: Yes.
MR. ANGEL: Question No. 7, I got a letter a couple of days ago, an email with a letter attached from your agency saying you would not answer the --

my question: Does the DEQ receive any federal funding, as though it wasn't relevant. And I was wondering if that could be explained. Seems directly relevant.

MR. RANDALL: It's not relevant to this licensing action.

MR. ANGEL: It is if Title VI of the Civil Rights Act applies, which it does. But we can leave it at that.

Number 8: Please describe the outreach and public notice conducted by DEQ, if any, to tribal members at the White Mesa Ute community for this permitting process.

MR. GOBLE: So on April 11th of 2017, the Division sent the Ute Mountain Ute Tribe all the documents associated with the licensing action. This allowed the tribe to present any questions or concerns they had regarding the licensing action before the documents were sent out for public comment, and we received no such question or comment from the tribe before the period began.

MR. ANGEL: And -- thanks for that information. However, that's not the question I asked.

What public -- outreach and public notice

was conducted by the agency to tribal members at the White Mesa Ute community?

MR. GOBLE: Our point of contact is Scott Clow and Colin Larrick and their attorney Leland Begay. That's who we sent it to.

After we sent it to them, I don't know how they disseminated the information to the tribal members.

MR. ANGEL: So your agency did not directly disseminate information and notice to tribal members at White Mesa directly. You used your outreach to --

MR. GOBLE: I explained what we did.

MR. ANGEL: Okay. Thank you.

And I guess that's the answer to No. 9: How many tribal members, if any, were sent notice of opportunities for public comment on this permit/license renewal process? And I guess the answer is other than your point of contact.

MR. GOBLE: Yes, sir. Same answer.

MR. ANGEL: All right. Well, thank you very much.

MR. GOBLE: Yep.

MR. ANDERSON: Thank you, Mr. Angel.

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In the order that we've set out, as I

explained before, the next is Grand Canyon Trust.

Would you please state your name for the reporter.

MR. PAUL: My name's Aaron Paul. I'm the staff attorney with Grand Canyon Trust.

Thank you for taking the time today to answer the questions that we posed. We appreciate it.

MR. ANDERSON: Thanks for coming.

MR. PAUL: First question on our list was the following: In its discussion of Reclamation Plan Revision 5.1, the Division's Technical Evaluation and environmental Assessment observes Energy Fuels "could not resolve all of the staff's concerns" with the proposed evapotranspirative cover system. I'm wondering what the Divisions unresolved concerns are.

MR. TOPHAM: The licensee is required to provide a plan that has a high probability of success. Quoting from 10 CFR 40, Appendix A Criterion 4(d), which is referenced in our state rules, "A full self-sustaining vegetative cover must be established or rock cover employed to reduce wind and water erosion to negligible levels. Where a full vegetative cover is not likely to be self-sustaining due to climatic or other conditions, such as in

semi-arid and arid regions, rock cover must be employed on slopes of the impoundment system. The NRC" -- or I might add parenthetically in this case, the state -- "will consider relaxing this requirement for extremely gentle slopes such as those which may exist on the top of the pile."

The -- federal government has provided guidance documents including NUREG/CR 7028 to provide guidance on designing and constructing evapotranspirative covers such as has been proposed in Reclamation plan 5.1. Too little data existed in the public record or in sources that the licensee provided to the state to convince us that the evapotranspirative cover would meet these requirements.

Just to make sure that I have fully covered your question there.

MR. PAUL: So if I understood correctly, the primary concern is that not enough vegetation will be established on the evapotranspirative cover to adequately promote evapotranspiration?

MR. TOPHAM: Correct. We were not convinced that the diversity and density of vegetation could be achieved.

MR. PAUL: Okay. So it wasn't under --

MR. TOPHAM: We're open to other data, to additional data.

MR. PAUL: Understood. So it wasn't other issues with, say, the layers and the cover and lack of a capillary break, things of that nature? It was basically the vegetation issue?

MR. TOPHAM: I believe the questions on capillary break and so forth come up a little bit later. Your general concern here had to do with diversity and density on vegetation as well as biointrusion.

MR. PAUL: Okay.

MR. TOPHAM: And I believe biointrusion also comes up later.

MR. PAUL: So let me move on, then.

So my second question was: Why the Division is proposing to require the company to revert to the 1996 cover design if the test section for the evapotranspirative cover fails to meet the performance criteria that is set out in the Stipulation and Consent Agreement.

MR. TOPHAM: As we view it, it's not really a reversion to the rock cover because the rock armor cover is fully approved. In 1996 the Nuclear Regulatory Commission approved that cover. And we

need to have something in the reclamation plan that can be used should the -- should closure proceed at this point.

MR. PAUL: So if I understood the consent agreement correctly, it seems with some conditions to provide for a fallback, basically, an automatic fallback to the 1996 cover design if the Division is ultimately unsatisfied with ET -- ET meaning evapotranspirative -- ET cover or any adjustments that are made to the cover.

Am I understanding the consent agreement correctly?

MR. TOPHAM: Our intention was to make clear that there was an approved system that could be employed and that entering into the agreement, the Stipulation and Consent Agreement, would not extend an automatic approval of the new system, that it was a demonstration project, and it's a way to hold the licensee accountable for the terms that were negotiated in that process.

MR. PAUL: Okay. I'll move on to my third question and perhaps ask for follow-up in that context.

So why isn't the Division requiring the 1996 cover design to meet the same performance standards

as the ET cover design is being required to meet?

MR. TOPHAM: I would answer that in two ways. The first is that the technical standards for the two systems are different. Therefore, the review process would have to be different.

And the second is that the rock armor system had already been fully vetted. It had been through a review process and had been approved. So there was no reason since it wasn't being submitted as a new element to review it again.

MR. PAUL: I guess to get at the heart of my confusion, I mean, is there any expectation that the 1996 cover design will perform better than the ET cover? Does the Division think that the 1996 cover design may be better than the ET cover?

MR. TOPHAM: That is why we are doing the data collection and analysis and demonstration project. We don't know which will be better in this particular climate. We're hopeful that we find a solution, and then we would use the superior solution.

MR. PAUL: But if the 1996 cover isn't being tested, how are you going to determine which solution is superior?

MR. TOPHAM: I believe if you read the

Stipulation and Consent Agreement carefully, you'll see a lot of what we're looking for, trying to determine which parameters -- trying to determine that the parameters that are outlined in 10 CFR 40 -- if I go back to my notes here, the cited section in Appendix A, if -- if -- we're trying to see that the new cover system meets those criteria.

MR. PAUL: Uh-huh.

MR. TOPHAM: If it does, then the licensee has -- has made a proposal that we could consider fully vetted.

MR. PAUL: And if it doesn't? And if it doesn't, my understanding is they can -- the licensee can submit some changes to the ET cover, which the Division will consider and perhaps implement, but ultimately the Division is unsatisfied. I think that the consent agreement says the 1996 cover will be built.

Am I -- I just -- I'm not trying to -- this isn't a gotcha question. I'm just trying to understand that that's the system that's --

MR. TOPHAM: If the data cannot support the new cover design, we have a fully approved cover that we could implement. That's the extent to which I'm willing to speculate at this point.

MR. PAUL: Okay. I'll move on.

So why did the Division enter into the Stipulation and Consent Agreement to govern reclamation of Cell 2?

MR. TOPHAM: I began to mention earlier that the Stipulation and Consent Agreement was a mechanism to hold the licensee accountable for the agreements that we had negotiated in terms of collecting additional data and assessing the performance of the new system.

MR. RANDALL: Let me explain it this way: The 1996 cover is -- has -- was approved by the NRC. It was deemed to meet all applicable performance criteria. The NRC's approved that. We're not going to revisit that. There's no reason to.

The licensee applied for us to consider the evapotranspirative cover. The staff reviewed the application and determined that there was insufficient data to decide whether or not the new proposed cover, the alternate cover, would meet applicable criteria.

The purpose of that consent agreement is to set out the parameters for testing of the evaporative -- the ET cover so that the Division has sufficient data to make a final decision up to seven

years from now to decide whether the ET cover meets applicable criteria.

That's the only reason for the consent agreement was to set the parameters under which the data would be collected upon which a decision could be made in the future.

MR. PAUL: Was there a concern that the company might not meet its obligations without a consent agreement to -- to carry out the testing as proposed? I mean, it just seemed unusual to me that there was a consent agreement on this. And so I'm just curious what motivated that. Sounds like you guys just wanted to have a better enforcement mechanism in place.

Am I understanding that correctly?

MR. RANDALL: I think that's correct. I mean, the proposal was to put -- you know, Cell 2 has been covered -- and we'll get into this later, but Cell 2 is completely covered with a radon barrier, and we just want the formal mechanism -- enforcement mechanism to describe the basis upon which the testing would occur and what would happen.

If it fails, they have to use the approved cover.

MR. PAUL: So one of the subparts to my

question was whether the Division concluded that the company violated any regulatory requirements before entering in the Stipulation and Consent Agreement?

MR. RANDALL: No, none whatsoever.

MR. PAUL: This is a pretty technical question, No. 5. Or at least for me it's technical, perhaps not for other folks out there. But the test section, the primary test section, as I understand it, of the evapotranspirative cover is supposed to be installed in the southeast corner of Cell 2 in an area that's sloped at a grade of 1 percent, meaning that the top layer is going to have a topsoil gravel mixture rather than all topsoil.

And so I'm curious whether in light of that difference and what's going to happen on the vast majority of the cover, the Division thinks the test section is going to be representative of the rest of the evapotranspirative cover.

MR. TOPHAM: I realize it's going to take a little bit longer than a yes or no answer here.

Appendix A to the reclamation plan included test data on all of the stockpiles of material that were intended for use on the Cell 2 cover. That included all of the topsoil. That material, the topsoil material, included a gravel fraction and, in

fact, it's the same material as specified for the test section.

So with that in mind, using the same materials we would expect the same performance, yes.

MR. PAUL: And even though there's -- if I understood correctly, even though there's going to be some gravel, which I would assume would inhibit plant growth to some degree in a 1 percent sloped area, is what you're saying is you think the -- when you say performance, the plant growth on the -- in the all topsoil section on the cover that's at a slope of less than 1 percent is going to be the same -- the same performance?

MR. TOPHAM: The purpose of the gravel -- and I hope this helps answer the question -- is to provide some erosion protection while the plants are having an opportunity to take and establish their root systems.

MR. PAUL: Okay.

MR. TOPHAM: And that will be required so that the licensee doesn't have to go in and mess up the plants, so to speak, to repair areas that may have eroded. It is a small amount of erosion protection that's there for a temporary protection until the root system takes.

So the -- the answer is we do expect the same performance.

MR. PAUL: Okay. My sixth question was whether the Division evaluated an off-site disposal option for the uranium byproduct material of the White Mesa Mill?

MR. GOBLE: So the answer is no. And the reason why is because in 10 CFR 40, Appendix A -- sorry. In 10 CFR 40, Appendix A, the intention for 11e.(2) byproduct material, whether that be tailings or other 11e.(2) waste, its intention is for it to be disposed of on-site tailing cells in accordance with Criterion 6. Criterion 2 describes it is federal policy that in order to avoid small proliferation of small waste -- small waste disposal sites, byproduct material from the In-Situ leach operations, such as residues from solution extraction and contaminated control processes and wastes from small remote above ground extraction operations must be disposed of in existing large mill tailings disposal site. The White Mesa Uranium Mill is allowed by their license to receive byproduct material from In-Situ lease extraction operations.

So it's federal policy it's disposed of on site.

MR. PAUL: Well, I won't try to quibble with your interpretation of Appendix A right now, but are you basically saying that it's the Division's view that Appendix A prohibits off-site disposal of the tailings of the White Mesa Mill?

MR. GOBLE: It doesn't prohibit, but it's pretty clearly the intention that it will be disposed on site.

MR. PAUL: Okay. My seventh question was whether the -- well, let me start over.

So the company developed a model of infiltration and contaminant transport, and one of the types of covers the company modeled in that report was an evapotranspirative design that had a capillary break in -- I think it was the third cover design model in the ICTM, which means Infiltration and Contaminant Transport Model reports. The third cover in the ICTM had a capillary break.

I'd like to know why it was not included in the final cover design.

MR. RUSHING: Yeah, the proposed cover design never included a capillary break. One of the Division's comments when reviewing the Infiltration and Contaminant Transport Model was to provide sensitivity showing that a capillary break in fact

was not needed. So the model was conducted with that layer and was shown that it wasn't needed.

MR. PAUL: If I understood the ICTM report correctly, it looked to me like the predicted, the model infiltration into the tailings through the cover design that included a capillary break would be lower as in it would -- at least on that metric would perform better than the model with the ET cover.

Did I understand that right?

MR. RUSHING: Whether or not it was lower, the cover without the capillary break met the design requirements.

MR. PAUL: I see.

So assuming I'm right that it was lower, what you're basically saying is that the model with the cover was good enough that the difference between those two covers wasn't significant enough to mean that the capillary break would be of -- I guess of use or would be a better cover system?

MR. RUSHING: Correct.

MR. PAUL: Okay. My eighth question was why the proposed cover design doesn't include -- I'm sorry. Why doesn't the proposed cover design include a geosynthetic root barrier to deter biointrusion into the tailings?

MR. TOPHAM: In this case, the licensee is relying on a combination of plant diversity, thick layers of soil cover, and a highly compacted layer at depth to resist biointrusion. And this was covered in Reclamation Plan Revision 5.1, Appendix A, page 17.

While the design shows promise, part of the demonstration -- demonstration study includes looking at this biointrusion element. There is more than one way to prevent biointrusion. A geosynthetic mat is a good way, but there are other ways that work as well, and they have elected to go a different direction.

MR. PAUL: Okay. If I understood the design of the primary test section for the ET cover correctly, and I think this is also in Appendix A, the test section does include a -- some sort of geosynthetic root barrier in it; is that right?

MR. TOPHAM: The only geosynthetic barrier that I am aware of in the test section is laterally to keep any edge effects from getting in and influencing the test itself.

MR. PAUL: Yeah, it was called the Reemay [sic] Biobarrier. Is that what you're talking about?

MR. TOPHAM: That is only on the edges. It is not -- it is not meant to prevent vertical

penetration of roots.

MR. PAUL: Got it.

So it's to protect the test section from outside intrusion to make sure that what's represented in the test section is going to look like the final cover that's ultimately to be --

MR. TOPHAM: Yes.

MR. PAUL: Makes sense.

If I could just try to move on by summarizing my ninth question quickly, it's my understanding that there's a new version of MILDOS available as of about a year ago, March 2016, and it looks like the Division didn't use that new version of MILDOS in its modeling and I'm curious why.

MS. GALLOWAY: MILDOS is, as you indicated, a modeling program. We began the process of following or doing our model back in 2011. It took a number of years to collect all the information, to input into the program, and to compile the results once the program was run.

We felt that when it -- when the new version came out in March 2016, it wasn't worth delaying putting the renewal out another three or four years in order to redo what we had done to this point.

At the next amendment or modification to the

license where they will be doing anything affect -- that may affect those, they'll be required to submit a new model using the newer version.

MR. PAUL: Do you have any idea whether the newer model, how much it might affect the results of the modeling that was done?

MS. GALLOWAY: Given that the results were substantially below the -- the amounts or the limits produced, or the standards I should say, we don't anticipate that the results would have been affected with the new model, no.

MR. PAUL: Would you be able to describe for me just the key changes in the modeling? And I realize that's pretty specific and narrow. And if you can't, I understand.

MS. GALLOWAY: Well, and to be perfectly honest with you, I did a little of the beta testing on the new model. However, I haven't looked at the new model since it came out, so I don't know exactly what came out. So I -- I'd kind of be speculating as to what those changes actually end up being.

I apologize that I haven't had a chance to do that as of yet, but ...

MR. PAUL: It wasn't the question I wrote up specifically, so I understand.

My tenth question asks about variability that shows up in Table 1 of the technical evaluation, and I just didn't understand why that variability exists. And the figure I pulled out was for whole body or single organ doses through annual exposure varying from 2 mrem in 2007 to 16.2 in 2010.

I was curious if you could describe what the main reasons for that variability are?

MS. GALLOWAY: Yeah. The Table 1 that you're pointing to, there's two potential things you may be observing.

One is there's three columns in that table. Each of those columns relates to a different standard, and the different standards require different things be taken into account. Two of the columns would have included radon and one would not have. So that's going to be a difference in the results right there.

If you're considering the year-to-year difference within the column itself --

MR. PAUL: Mm-hmm.

MS. GALLOWAY: -- we tried to run the model as realistically as possible and took into account what -- what the licensee received each year and what they processed. And because there were times when

the mill was not running, you know, and there were a lot of downtimes, some years they received more, some years they didn't receive as much.

So that's going to cause a pretty wide variability.

MR. PAUL: Did the type of feed the mill was processing contribute much to the variability in the year to year?

MS. GALLOWAY: That was taken into account for each year. We -- as I indicated, we developed the model based on what they received and what they processed. So based on what they received, what they processed, you know, the ores, whether it be Arizona strip, Colorado plateau, alternate feed, whatever the case may be, that was all taken into account.

So yeah, that would have been included in the model, so ...

MR. PAUL: Is there a document where that would be available for me to study as we go to comment on the -- is that printed out anywhere?

MS. GALLOWAY: I'm not certain what document you're trying or what --

MR. PAUL: The modeling results and input or output.

I mean, is there a way that I could see?

MS. GALLOWAY: This is one year (indicating).
MR. PAUL: Got it.
MS. GALLOWAY: And there are eight years of it.
MR. PAUL: Is it available electronically as something the public could have access to?
MS. GALLOWAY: I imagine we could get it if we received a GRAMA request --
MR. GOBLE: If you wanted to request it, we can provide it.
MR. PAUL: Okay. Thank you.
My 11th question asked about a specific condition in the revisions to the radioactive materials license, Condition 9.5, which says, "On or before March 4, 2018, the annual surety estimate shall also include all costs necessary to remediate any groundwater contamination required by License Condition 10.21, after facility closure, to be determined by the director.
And I just was confused about that phrasing. And I was hoping you-all could clarify that what means.
MR. TOPHAM: Well, thank you for pointing that out. That was a clerical error. The clause in

the license to which you referred had reference to work that had already been completed and it was left in inadvertently. And then in our -- and somebody's insert was they changed the date due on it even though the work was already done.

So that is being totally stricken from the license.

MR. PAUL: The language "after facility closure, to be determined by the Director"?

MR. TOPHAM: Yes.

MR. PAUL: Yeah.

MR. TOPHAM: That related to one of the contaminant clauses that is already under abbreviation, and the work that was contemplated with that particular clause is already complete.

MR. PAUL: That makes sense. Thank you.

Number 12, why is the Division proposing to give Energy Fuels until March of next year to update the surety to include groundwater remediation costs rather than doing that right now?

MR. TOPHAM: We asked that the -- we require that the licensee update their surety annually.

March 2018 would be the next recurring -- would be the next regular due date of a surety if that license were to be renewed before then. So

that's why that date appears in there.

It's just clear that we're not leapfrogging a cycle. We receive what comes out on -- a submittal every year to update the surety.

MR. PAUL: So are you saying that the current reclamation cost estimate that was submitted last year and is approved now already includes costs for remediating groundwater?

MR. TOPHAM: We require that upon discovery of a plume, the plume be characterized and an estimate put together of what it would take to perform the remediation, and that money is immediately added to the surety.

So the answer to your question is yes.

MR. PAUL: Okay. I've seen those provisions.

Is there anything that's going to be different about what they do next year as a result of this requirement?

MR. TOPHAM: Our procedure is not going to change.

MR. PAUL: Got it.

MR. TOPHAM: Unless we get some data that indicates we need to make an improvement there.

MR. PAUL: Question 13, the company plans to

complete a lot of reclamation tasks at some point in the future.

Do the cost estimates that are in the current backup for the surety, Attachment C to the Reclamation Plan Revision 5.1, do they account for inflation?

MR. TOPHAM: The simple answer is yes. And the way that is accomplished is by asking for a new estimate every year. That way, we're using current costs rather than costs that need to be inflation adjusted.

MR. PAUL: And what about costs within the plan that won't occur for a long time? Are those escalated in some way to account for inflation?

So, for example, dewatering takes a while, so all the tasks that will happen after dewatering is complete presumably will be anywhere from 7 to 10 to 15 years out in the future.

Are those already -- do they already include inflation?

MR. TOPHAM: I think I can clear that up fairly easily.

The assumption behind the surety is not that we will exercise the surety in 7, 10, or 15 years. The assumption behind the surety is that in the event

something happens and we need to close the facility this year, this is the money that would be required. So 15, 20 years out, we would have -- we would have reviewed an additional submittal 15, 20 times, and it would have been updated that many times.

This is to cover what happens between now and the next submittal.

MR. PAUL: Right. And I think I understand that element of my question, but I'm going to try again with a slightly separate question.

If, say, the mill were to shut down tomorrow and you-all were to exercise your rights of that surety, does that amount that was calculated into the surety already include inflation for all the tasks that will happen ten years from now? Because it's going to take a long time before the cover is placed on Cells 3, 4A and 4B; right? A lot of tasks in the estimate itself would occur a long time from now even if the company defaulted tomorrow.

So my question is, do those estimates include inflation?

MR. TOPHAM: The work plan that a company's surety contemplates closing and reclaiming the facility within two years.

So the only things that might be remaining

might be a small amount of remedial work and the long-term care that will be done when this is turned over to the Department of Energy. And there is -- there is a provision for some of that.

MR. PAUL: Is that a question the company can answer? I mean, I literally can't tell with the cost estimates whether inflation for tasks that will happen far into the future is included in that attachment.

MR. ROBERTS: The estimate, as Mr. Topham said, is an estimate about what the costs are. If the company would turn that money over to the State and the State would take that money, then use it for the costs going forward.

So it may not directly include a factor for inflation, but it also doesn't include any factor for the -- the investment value or the increase in value of the surety money that the State would inherit should that occur.

MR. PAUL: Question 14, in short, is why was a contingency of 25 percent selected for the contingency in the surety estimate?

MR. TOPHAM: Beginning about five years ago, we took a long hard look at the current state of industry practice. We consulted a number of sources,

including RSMeans, American Society for Testing and Materials. We looked at all of the literature that the NRC had put out, and it was determined that at the stage of planning that was possible at this -- with the plant remaining in operation, it was most appropriate to move to 25 percent from the previous value of 15 percent.

MR. PAUL: And was that adopted directly from NUREG-1757?

MR. TOPHAM: If you look in our rules, it's currently located in R313-22, 35(3)(h). It refers to Volume 3 of NUREG-1757.

MR. PAUL: Impressive memory of the recitation.

MR. TOPHAM: I've had to deal with it once or twice.

MR. PAUL: Got it.

And if I understand Volume 3 of NUREG-1757 correctly, it basically says a 25 percent is the -- the minimum contingency factor that the NRC recommends for surety requirements.

Is my understanding; right?

MR. TOPHAM: Yes. That also comported along with the other literature I cited. The exception to that is NUREG-1620, and that seemed to be the only

outlier.

MR. PAUL: My 15th question, I'll skip all the introductory stuff.

I'm just curious, one, whether I'm reading the groundwater discharge permit correctly when I understand it to be saying that the slimes-drain pumps in each of the cells aren't going to be turned on until closure of each cell begins; is that right?

MR. TOPHAM: That is essentially correct.

During operation prior to placing cover, fluid is being placed on top of the tailings. So it makes more sense to recirculate fluids from the top rather than the bottom of the pile. You're not dewatering if you're replenishing the water as fast as it is pulled out.

MR. PAUL: And why can't you do both? Is there a technical reason?

MR. TOPHAM: It's -- I suppose if the licensee wanted to, they could. But there's no -- that's no benefit to it.

MR. PAUL: So your expectation is that the impoundments could not be watered -- dewatered any faster if you were pumping both from the slimes-drain and from the surface water on top of the mound.

MR. TOPHAM: While you're regenerating the

slimes -- the process fluids, but you're still introducing process fluids while the tailing cell is still open and precipitation can get in there, dewatering is not going to occur. It will just recharge.

MR. PAUL: There's just too much -- too small amount they pump out of the slimes-drain, basically, that it's irrelevant in the grand scheme of things? Is that --

MR. TOPHAM: Well, there's only -- the fluid can only move through the tailings mass so fast. It's going to be constantly recharged as fast as we can pull -- as fast as the licensee can pull the -- pull the fluid out.

So it really doesn't give any benefit to be pulling water from the bottom if you're already pulling it from the top.

MR. PAUL: Okay. Question 16 had to do with the license amendment for the Sequoyah Fuels material. And to summarize, it looks to me like the Division, through its consultant, URS, reached the conclusion that the Sequoyah Fuels material is not hazardous waste under an exemption that I understand is commonly called the Bevell Amendment, but basically an exemption from hazardous waste rules for

mining wastes, yet the Sequoyah Fuels material is sort of, as I understand it, a waste that was produced by processing yellowcake.

And the Bevell Amendment applies to waste produced by processing ore, and so I didn't understand how that conclusion was reached that the Sequoyah Fuels material is a waste from processing ore.

MR. JOHNSON: So the NRC actually determined that the Sequoyah Fuels material is already 11e.(2) material based on the fact that they were just -- they were taking yellowcake and making it to spec versus before the enrichment process.

So in their document, SECY -- it's S-E-C-Y -- -02-0095, the commission ruled that this material was 11e.(2).

MR. PAUL: And so if I'm understanding correctly, there's an assumption that the EPA's definition of ore under its hazardous waste rules is the same as the commission's definition of what ore is?

MR. JOHNSON: So in this case where it's been ruled 11e.(2) material, the EPA regulations don't even apply.

MR. PAUL: And is that because it could be

disposed of directly into the impoundment's developing process at the mill?

MR. JOHNSON: If that was the choice, yes.

MR. PAUL: Is there any possibility that will happen with the Sequoyah Fuels material?

MR. ZODY: Objection. Calls for speculation.

MR. JOHNSON: Right now, it's -- the plan is that the Sequoyah Fuels material would be processed first for its uranium content.

MR. PAUL: Due to time constraints, I'll just skip Question 17.

My last question is, you know, in reading the report about the Sequoyah Fuels material, there is a handful of circumstances under which the licensee will be required to apply water to the material while it sits on the ore pad. And one of those circumstances is if a Super Sack is leaking. And so I'm just wondering if there's any risk that the practice of applying the water into the material while it's in the ore pad could cause groundwater contamination.

MR. GOBLE: So the answer is no.

So as you described, the material is received in Super Sacks, and the only time the Energy

Fuels would be required to apply water will be if there's a damaged sack or it's leaking. And the amount of water we're talking about is more like a water spray from a water truck. It's kind of de minimus. It's not going to be enough water to actually cause infiltration on the ore pad.

MR. PAUL: So it would just contaminate the soil beneath the ore pad and not groundwater? Is that --

MR. GOBLE: Well, it would just basically keep the material damp so it's not dispersible for -- under the wind conditions. And if, let's say, it contaminated the ore storage pad anyways, that actually all gets cleaned up and then put in the tailing cell in the reclamation anyways, so ...

MR. PAUL: Okay. That's all I have.

Thank you.

MR. GOBLE: All right. Thank you, Aaron.

MR. ANDERSON: We did have a break built into the schedule, but since we're moving along, I think we might as well stay on schedule.

MR. GOBLE: Sure. That's fine.

MR. ANDERSON: So next is Ute Mountain Utes.

* * * * *

MR. CLOW: Thank you. Can you hear me?

MR. RANDALL: Could you state your name for the reporter, please.

MR. CLOW: I'm Scott Clow. I'm the environmental programs director for the tribe. And this is Michael Keller. He represents us in the state of Utah.

Looks like we're well ahead of what we thought we would be timewise, so thank you for -- for having us here today.

MR. ANDERSON: Thank you.

MR. CLOW: Our first question is what is the expected remaining operational and pre-reclamation life of the White Mesa Mill?

MR. ROBERTS: That the mill has no predetermined operational life. The mill operational schedule is to determine or is dependent on the availability of both the ore from conventional mines which is dependent on the price of uranium which could fluctuate wildly as other commodities do.

Each of the tailing cells is reclaimed as it is filled and according to milestones set out in the reclamation plan.

Since there's no set schedule for filling any one of the ponds, there's no set schedule for actual final closure of the mill.

MR. CLOW: Thank you.

Our second question: Has an environmental assessment been conducted that assesses the impacts of the mill on surrounding communities over the mill's entire past 37 plus years and projected remaining operational and pre-reclamation life?

MR. GOBLE: So the -- an environmental impact statement was conducted by the NRC and was completed before the mill existed to assess the impacts of social impacts of the mill. There isn't currently a requirement for one to be performed again; however, there is a rigorous environmental monitoring program at the mill for all types of media including air, soil, water, surface water, and vegetation. And there are regulatory standards that the mill is required to meet.

As long as the standards are met, the effects on the public should be minimal. According to the sample results, the licensee hasn't exceeded any regulatory limits at their property boundary. Therefore, no individual member of the public has received a dose greater than the public dose limit of 100 millirem per calendar year.

This dose limit and the dose limit for radiation workers were established after several

multiyear international health studies.

MR. CLOW: Thank you.

Question 3: How has the Division determined the projected cumulative radiologic impacts of the mill on people living in White Mesa and other nearby communities over the period of time the mill has operated since 1979 and will continue to be in operation or pre-reclamation?

MR. GOBLE: So as I stated before, the analytical results show that the mill has not exceeded the regulatory limits of their property boundary. So, therefore, no individual member of the public have received a dose greater than 100 millirem in a calendar year.

The regulatory limits is 5,000 millirem a year per calendar year for a radiation worker. Therefore, no individual -- sorry. I'm reading the wrong one. I apologize.

So over this last ten years, the total effective dose equivalent, average dose, so that's basically a dose for the public for everything they're exposed to. That's internal, outernal [external], what they might inhale, ingest, et cetera.

Over the last ten years for our work [a

worker] at the White Mesa Mill has averaged 80 millirem to 180 millirem versus the standard of 5,000 millirem, and it's been well below the regulatory limit.

Again, as I stated, there hasn't been a -- an exceedance of the property boundary levels, so it's not expected based off the calculations of the limit that anyone has received a dose greater than that what's allowed.

MR. CLOW: Thank you.

Our fourth question: Has the Division assessed the cumulative radiologic impacts of the mill to people living in White Mesa and other nearby communities in light of the much higher radioactive material content over that of local uranium ores of the alternative feed materials approved and being approved for processing and disposal at the mill? I think that was partially answered earlier.

MR. GOBLE: We have -- we've got another part to that that might help provide some information for you, Scott.

So as we said, there's not a requirement for one to be performed. But the Sequoyah Fuels alternate feed is similar to actually what's already been accepted at the mill. So the impact for what

will be received is pretty much the same of what's already been received.

And Gwyn had some more she wanted to add to that.

MS. GALLOWAY: As indicated before, we took the alternate feeds into account when we did the MILDOS modeling, and it showed that no limits were exceeded.

MR. CLOW: In the techno -- technical evaluation document for the license, the license, there's a table that has the MILDOS calculations from 2007 to 2015, I believe it was.

Do you have those calculations in the -- did the Division perform those prior to 2007?

MS. GALLOWAY: No.

MR. CLOW: Thank you.

Our fifth question: What measures have been and will be taken by the Division and EFR to ensure that off-site impacts from the White Mesa Mill identified in the 2012 USGS report, Scientific Investigations Report 2011-5231, have been remediated and do not pose a hazard to the public or the environment?

MR. GOBLE: So the majority of the impacts that were identified with the USGS report were

actually located on the Energy Fuels' property. Therefore, they will be addressed at closure as applicable.

For off-site areas, the value of the uranium samples ranged from 2.6 parts per million to 6.6 ppm. These samples are below backgrounds -- now, these included samples that are below background that the USGS determined were as a result of natural weathering rather than ore migration.

The value of vanadium samples ranged from 56 parts per million to 79 parts per million. The EPA level at which the EPA immediate action would be triggered is 207 parts per million and 390 parts per million, respectively for a residential scenario.

The off-site samples were all significantly lower than the immediate action level. Plus the areas where the samples were collected is not a residential area. Therefore, no remediation has been performed at this time.

MR. CLOW: Thanks.

Similarly, Question 6: What measures are the Division taking or requiring EFR to take to ensure that off-site impacts from the White Mesa Mill of the type and nature identified in the 2012 USGS report are no longer occurring and will not occur in

the future?

MR. GOBLE: So the license was last revised on July 10, 2014, and that revised license added License Condition 11.9 which was in direct response to the results observed in the USGS report. And we required the licensee to submit a revised environmental protection manual that included two additional air monitoring stations and a revised soil and vegetative sampling program.

The licensee was also required to begin sampling for thorium 232 and radium 222 -- sorry, radon 222 at each air monitoring station. The revised environmental manual was approved by the director on December 10, 2014. Since then, the licensee has implemented the required changes in their environmental management plan, and it is expected that any potential for off-site release will be identified by the enhanced environmental monitoring plan.

MR. CLOW: Thanks. We appreciate that.

Question 7: How long will it take until Cell 2 is permanently capped and no longer poses a source of radon or other radionuclides to the atmosphere?

MR. TOPHAM: I'll answer the second part

first.

Beginning last summer and including early May of this year, radon barrier was installed on Cell 2. That installation is complete.

The latest round of testing for radon resulted in levels of .5 picocuries per square meter per second, which is well below the limits established in 10 CFR 40, Appendix A, Criterion 6, at 20 picocuries per square meter per second. So with that in mind, the radon issue for that particular cell appears to be resolved. Ongoing monitoring will -- will take place to confirm that.

As far as final closure of that -- that tailing cell, what that would require is the -- the construction of the remaining layers of the cover system. And there is nothing that -- that would indicate that has to be done immediately. We have a licensee on site who can make repairs to the radon barriers should erosion occur.

And the thing we would gain by placing remaining layers would be the wind and water erosion protection. What we might lose is the ability -- with the additional material that's been placed compressing the tailings, is the ability to wait until settlement is complete. If we wait until

settlement is complete, we'll have less chance of the cover system being compromised due to differential settling. So it's better to wait for the remainder of the construction.

As far as a timetable, that's really up to the licensee. But we're monitoring their reports of settlement.

MR. CLOW: Thanks.

Similarly, how long will it take until Cell 3 is permanently capped and no longer poses a source of radon or other radionuclides to the atmosphere?

MR. FRYDENLUND: I'll answer that, and this answer applies to all the cells. So it addresses your Questions 8, 9, and 10.

We -- milestones for the closure of each tailings impoundment commence once it is filled with tailings. The time it takes to fully reclaim an impoundment depends on a number of factors, including the time it takes to dewater the tailings sufficiently out of the cell and prior to placing the final layers of the reclamation cover.

So we first have to fill the cells. Then milestones kick in and we've got to go through a reclamation timetable. But that could vary depending

on each cell depending on how long it takes to dewater.

As Mr. Topham said, we're finding the cell, two, that the -- the radon amount has been reduced significantly by partial reclamation. But I want to remind you that the standard for a cell that is fully reclaimed is not zero radon. It's 20 picocuries per meter squared per second.

MR. CLOW: So just relative to that time frame, once Cell 3 is -- is full, you would place the radon barrier or would you wait until more settling occurs before placing the radon barrier?

MR. FRYDENLUND: The reclamation plan sets out a number of milestones, including, you know, eliminating freestanding water, contouring, things like that. Maybe Harold can address that.

MR. ROBERTS: Yeah. Once the cell is officially declared closed and is full, then the interim layer would be the first one to be placed on the cell, which is basically the bottom layer, the platform layer for construction of the remaining portions of the CAP. There's a significant portion of that actual layer already placed on Cell 3, but there's still a portion of the cell that is in active operation. So until that -- until the cell is fully

utilized and declared closed, then it won't start the final sequencing of reclamation.

But part of the reclamation is placement of the interim layer which puts a surcharge on the tailings and helps to consolidate those, and then we continually monitor the settlement monitors to see how the sands are consolidating and what kind of stability we're seeing in the tailing cell itself.

MR. CLOW: About how long did it take for the majority of the settling to occur on Cell 2 after the first base layer was put on there?

MR. ROBERTS: I think that information is contained in the records. The annual evaluation is done on the tailings, so those records and graphs are contained in that report.

MR. CLOW: Thanks.

MR. TOPHAM: I think it's worth noting that on placement of the radon barrier, the amount of water that was being withdrawn increased due to the consolidation that was induced, but with the additional material. It also kicked off a new round of settlement. So we -- we're seeing beneficial effects from the placement of the radon barrier on Cell 2.

I would anticipate that with the placement

of the platform fill that Mr. Roberts has indicated on Cell 3, we would begin that process to start seeing the beneficial effects immediately.

MR. CLOW: Okay. Well, in the interest of time, as Mr. Frydenlund explained, Questions 8 and 9 are similar in nature, so we'll just go ahead and move on to Question 11. That's relative to Cells 4A and 4B.

How long will it take until Cell 1 is permanently capped and no longer poses a source of radon or other radionuclides to the atmosphere?

MR. ROBERTS: Well, point of clarification. Cell 1 is not a tailings disposal cell. So the reclamation plan calls for any materials liners and any materials in Cell 1 to be removed upon final reclamation. And the entire area will be decontaminated according to the regulations, and then they will become a catchment basin that will further enhance the stability of the entire tailings disposal system by preventing and aiding in preventing any runoff or precipitation from getting back in the existing tailings cells.

MR. CLOW: So at final reclamation is when that will be closed?

MR. ROBERTS: That is correct.

MR. CLOW: And does it receive 11e.(2) byproduct material? Cell 1?

MR. ROBERTS: No.

MR. CLOW: Thanks.

MR. ROBERTS: It's an evaporation pond.

MR. CLOW: Question 12: What, if any, plans are there to approve additional cells at -- at the White Mesa Mill, and under what conditions and circumstances would the Division approve construction of additional cells?

MR. GOBLE: So at this current time, we do not have an application for any additional tailings cells from the licensee. And the procedures we would use are the same procedures we used when we approved Tailing Cell 4B.

MR. CLOW: Thank you.

Our 13th question: How long is corrective action pumping of groundwater at the mill expected to continue?

MR. RUSHING: The corrective action will continue until the cleanup standards are met. And those are listed in the corrective action plans as the groundwater action limits basically returning the contaminants back to the groundwater quality standard. The -- the removal of the contamination,

one of the elements of a CAP, a corrective action plan, is to maximize that pump performance and contaminant removal. So we're trying to do it as fast as possible. I mean, the exact timeline would be speculation.

MR. CLOW: Thank you.

Question 14: Will corrective action pumping of groundwater continue during and after reclamation?

MR. RUSHING: Similar, the corrective actions will -- may continue during and after reclamation. As before, the company will continue the cleanup standards from that.

MR. CLOW: Thanks.

Question 15: Where and how will pumped groundwater be managed during and after reclamation?

MR. TOPHAM: Well, this question calls for a certain level of speculation, so I can't answer firmly right now. There are a number different options for how contaminated water could be disposed. I can list some of those options.

Contaminated water must be either cleaned up to a discharge standard where it can be released to the environment or disposed in some kind of acceptable manner. One of the ways that cleanup water can be used, if you will, is to put it back in

the plant process. It could be used as compaction water for any of the layers of the CAP for any of these tailing cells. Because the contaminants would be still contained above the final liner, and as long as we can minimize infiltration, it won't be going anywhere.

So that's a couple of options. So no, which of the many options will be used in the future would require some speculation, and I don't think it's -- it would be wise to do that at this point.

MR. CLOW: (Nods head.)

MR. TOPHAM: Just be assured that appropriate standards will be followed.

MR. CLOW: Our 16th question: What period of time and relative costs will EFR and the Division use in calculating the appropriate amount of reclamation surety for corrective action pumping of groundwater?

MR. TOPHAM: First, a statement of principle. A surety must be sufficient at all times to complete the required work.

Each plume is evaluated as it's discovered, and I think we started talking about this earlier, and a cost estimate is assembled based upon the plume's size, location, and other appropriate

parameters. What contaminants are we dealing with? How can we remove them, things of that nature.

Typically the Division has the surety amended to include the remediation costs within about two months of discovery of the plume, just because that's generally how long it takes to do a full characterization completely understood. But the cleanup begins as soon as it's practical.

On -- bonds are looked at annually. Typically, we don't reduce any of the cleanup money until the cleanup is complete.

MR. CLOW: Thanks.

Okay. Question 17 was kind of a multipart question. So we're -- if it pleases the board, we're going to simplify that and shorten it for you instead of asking multiple related questions.

So what is the technical basis for the decisions [Division's] continued reliance on the summary of work completed, data results, interpretations and recommendations for the July -- July 2007 sampling event at the Denison Mines, USA, White Mesa Uranium Mill near Blanding, Utah, prepared by T. Grant Hurst and D. Kip Solomon, Department of Geology and Geophysics, University of Utah, submitted May 2008, otherwise known as the University of Utah

Study as evidence of no leakage from tailing cells despite current evidence -- excuse me, as current evidence, not despite, but as a means of evidence to support the leakage from the tailing cells?

MR. RUSHING: The University of Utah report confirmed that leakage and transported tailings wastewater to the water table had not occurred to that date. The report confirmed that observed monitoring concentrations up to that date were due to background or other preexisting sources.

Verification of the pre-identified background, concentrations in the monitoring wells assist us in evaluation of current and future monitoring concentrations and trends and regardless of changes on site.

One of the examples in the original question was, say, the removal of the wildlife ponds. The study findings and conclusions are still technically valid.

MR. CLOW: Have conditions changed all of a sudden?

MR. RUSHING: Conditions at the site, you know, without the specifics, there are conditions at the site that are changing continually. The response to that question is that regardless of those changes,

the conclusions made by the University of Utah study are still valid, that contamination had not occurred at the date of the study.

MR. CLOW: Okay. Thanks.

Question 18: What measures are the Division taking or requiring EFR to take to confirm that groundwater is not flowing preferentially in a southeasterly trend from the mill towards the White Mesa community?

MR. RUSHING: There's no evidence of a preferred southeasterly flow path. Energy Fuels Resources is required to measure groundwater elevations at all of the wells on site. That includes the point of compliance wells, the piezometers, background wells, the general monitoring wells as well as all of the CAPs [corrective action plans], the new wells, quarterly. They do that on a quarterly basis. Based on that data, groundwater contour maps showing groundwater flow direction is prepared by Energy Fuels Resources which depict groundwater flow directions. Groundwater mounding from the wildlife ponds has created a more southerly direction on the east side of the mill. However, these flow directions have been stabilizing since the discontinuation of use of the wildlife ponds in

December 2011. Lateral monitoring wells and chloroform cap wells are present on the east/southeast margin of the tailing cells to monitor groundwater flow directions east and southeast from the mill and tailing cells.

MR. CLOW: In the stipulated consent agreement, it was for chloroform monitoring? There's a series of projected wells towards the east if the plume continues moving in that direction.

Has that receded?

MR. RUSHING: Well, the -- so that is due to the impacts of groundwater mounding from the wildlife ponds. That mounding has altered flow directions in that area of the site. And those are --

MR. CLOW: So it is moving in that direction or it's receding from that with the pumping?

MR. RUSHING: The flow directions are restabilizing towards what would be pre-wildlife ponds, which are more of the south -- southern and southwesterly direction.

MR. CLOW: Thanks.

Question 19: What measures are the Division taking or requiring EFR to take to prevent the increasingly degraded quality of shallow groundwater beneath the mill from adversely affecting the quality

of the shallow aquifer downgradient of the mill?

MR. RUSHING: There's no indication that the tailing cells have leaked or are degrading water quality.

The historical groundwater contamination from the mill processed areas which caused groundwater contamination, that's the chloroform and the nitrate chloride plume, are being cleaned up according to corrective action plans and consent orders, and all contamination is within the mill property boundary.

The shallow aquifer continues to meet identify groundwater class standards listed in Utah Administrative Code R317-6-3 per the monitoring results at the permitted groundwater wells. An evaluation of the monitoring wells was conducted for the groundwater permit renewal and found that all of the monitoring wells meet their previously identified classes and beneficial uses.

MR. CLOW: So the Utah groundwater code is protecting the downgradient shallow groundwater?

MR. RUSHING: That would be an indicator that the groundwater has not degraded.

MR. CLOW: Thank you.

Question 20: What measures are the Division

taking or requiring EFR to take to prevent the increasingly graded quality of the shallow groundwater beneath the mill from adversely affecting the deep Navajo aquifer?

MR. RUSHING: There's no hydraulic connection between the shallow and the deep aquifer. I'm using the Ute Mountain Ute terminology. The shallow Burro Canyon Aquifer is separated from the deep Navajo Aquifer by approximately 1100 feet of Morrison and Summerville Formation materials which have low average vertical permeability. More than 200 feet of the Brushy Basin Member, which is a bentonitic clay, is directly beneath the shallow aquifer which is actually perching the aquifer, and isolates the aquifer from the underlying materials.

In addition, another source of communication could be from deep water well drilling that penetrates that Brushy Basin Member. Any drilling conducted that penetrates the Brushy Basin is done according to the Division of Water Rights' requirements and requires seals to prevent any kind of communication between those aquifers.

MR. CLOW: Thanks.

Question 21: What measures are the Division taking or requiring EFR to take to confirm that

unusual levels of metals and other constituents and parameters in monitoring well MW-22 are not due to the impacts from the mill operations and from preferential southeasterly flow of groundwater?

MR. RUSHING: Monitoring well MW-22 is an anomaly in the mill groundwater monitoring well network.

MW-22 is located hydraulically cross gradient from the tailing cells and is approximately 1 mile from the closest possible mill discharge. Monitoring wells which do not show the same anomalies as MW-22 are located upgradient from MW-22 to detect potential mill contamination.

The University of Utah study included MW-22 specifically and concluded that tailings wastewater and processed water from the mill was not present in the monitored well. Based on those findings, the mill is not the cause of those anomalies at MW-22, and really no additional required measures are warranted.

MR. CLOW: Was MW-22 cross gradient of the tailings before, during, or after the groundwater mounding from the wildlife ponds?

MR. RUSHING: To my knowledge, it's always been cross gradient from the tailing cells.

MR. CLOW: Okay. Thanks.

Question 22: How does the Division explain the unusually elevated, unnatural and increasing levels of fluoride, a constituent distinctly associated with tailings being detected in MW-22?

MR. RUSHING: Per the previous question answer, monitoring Well MW-22 is an anomaly, it is not being impacted by tailing solution or mill activities. Monitoring the wells closer to the facility on the east side of the tailing cells, for example, monitoring Well MW-17, do not show the same anomalies, including fluoride.

Fluoride concentrations in monitoring Well MW-22 are required to be collected semiannually, recorded, but no additional explanation of parameter concentrations in the well is required or warranted.

MR. CLOW: Thanks.

Question 23: How does the Division explain the fact that the quality of the shallow groundwater beneath and immediately downgradient of the mill is continually changing and degrading while the quality of the same shallow aquifer detected in the Ute Mountain Ute Tribes monitoring wells shows virtually no variability over the same period of time?

MR. RUSHING: Well, per Division review of

well data that was submitted a couple years ago by the Ute Mountain Ute Tribe for the east and west wells -- wells, it appeared per our review that there is actually substantial variability in the data.

The Ute Mountain Ute Tribe needs to provide examples and evidence supporting the statements in the question so that we can understand what's meant by the term "virtually no variability" in comparison with the mill monitoring wells, well data. And we would need that information to be able to -- to fully respond to the question.

MR. CLOW: Thanks. We'll provide that.

Question 24: Why hasn't the Division required monitoring wells to be located between MW-17 and MW-22 to confirm the source of the unusual chemistry in groundwater at MW-22?

MR. RUSHING: There's no regulatory basis to require monitoring wells at those locations. As previously discussed, MW-22 is an anomaly and was confirmed not to have been impacted by tailings wastewater or mill activities.

Compliance monitoring wells are located upgradient close to the mill to detect potential groundwater contamination. The wells upgradient do not show the same anomalous characteristics as MW-22.

MR. CLOW: Thanks.

In the interest of simplifying Question No. 25, I'm going to split it into two parts because it's really two questions that we put together.

Has the Division required an annual water balance to be calculated for the White Mesa Mill?

MR. RUSHING: No. There is no technical basis or need to calculate the type of water balance proposed in the question. That type of calculation would contain a large amount of assumptions and would be of little practical use.

MR. CLOW: The second part of the question: How is the Division determining how much water is used by the mill whether and what amount of processed water is being lost annually through the impoundments into the groundwater.

MR. RUSING: Well, the volume of water that's lost through the bottom liners of the tailing cells is measured by the leak detection systems for each cell. And the groundwater permit, those would be the best available technology and the discharge minimization technology standards. So they're regulated through that process, and that gives us physical information of the amount of water that's lost through the -- the liners of the tailing cells.

MR. CLOW: So if there aren't monitor leak detection systems on Cells 1, 2, and 3, how are those calculated?

MR. RUSHING: So those would fall into the discharge minimization technology requirements of the permit. Those cells do have leak detections installed. They're not the same type of leak detection as best available technology, but those systems have been fairly effective in capturing leaks from liner tears that have occurred in the older cells.

Another element of the discharge minimization technology is to use well data from monitoring wells that are located in very close proximity to the edges of the tailing cells.

MR. CLOW: So the standpipes are kind of the first line of this defense on those older cells?

MR. RUSHING: That's a good way to put it. The older cells have a first line of defense, which is not as rigorous or as good as the newer cells.

However, in the event those don't work, there's the backup of using the monitoring well data.

MR. CLOW: In the groundwater that you're protecting?

MR. RUSHING: Right.

MR. CLOW: Question 26: What measure is the Division taking or requiring EFR to take to investigate mounding of groundwater near MW-27 and Cell 1?

MR. RUSHING: Groundwater mounding at MW-27 was caused by infiltration from the wildlife ponds and that was verified by the University of Utah study. Since the discontinuation of use of the wildlife ponds in December 2011, the water elevations at Monitoring Well 27 have dropped over 3 feet.

The University of Utah study confirmed that water in the MW-27 was being charged by the wildlife ponds and also verified that no tailings or wastewater was in the well. Based on that, no additional measures are warranted.

MR. CLOW: Thanks.

Question 27: What factors justify the recent reduction in the amount of reclamation surety for the White Mesa Mill by over $1.7 million from 22.58 million to 20.82 million.

MR. TOPHAM: Again, our -- our principle is it's the surety should be sufficient at all times.

The licensee has placed primary and secondary radon barrier material on Cell 2. With -- that material placement was previously covered in the

surety. Since that work is already done, we have given fair credit to the licensee for the completion of that work.

MR. CLOW: Thank you.

Question 28: What level of confidence does the Division have that the three sample values reported in the Safety Evaluation Report for the Sequoyah Fuels alternative feed material are representative of the entire sample size of 485,000 cubic feet which is assumed to have a volume of over 87,800 square feet? The size of a football field is 57,000.

MR. LUELLEN: Well, several samples of the Sequoyah uranium materials were collected and tested in accordance with the License Amendment Request. Sections 1.4 and 4.1 of the Safety Evaluation Report detail these samples which included several -- a composite of several grab of the dewatered sludge in 2005. The samples of the material collected in 2012 tested for total metals and eight RCRA metals, toxicity characteristic leaching testing procedure of leachate extracts from the dewatered selection in 2012. Samples of the water selection in 2005 tested for total uranium and thorium isotopes. Samples of the sludge prior to dewatering in the mid-2000s as

part of the initial custom feasibility for dewatering processes at the ore facility. Samples of the dewatered sludge from different basins and clarifiers at the Oklahoma facility.

Based on the reported concentrations that were listed in the License Application Request and impact testing of the same material also available to the Division concluded that the characterization of the materials appear to be reasonable, representative, and bounding.

MR. CLOW: In the -- in the Safety Evaluation Report, it describes testing results for the filtrate, the actual liquid that was removed during the -- the dewatering process.

Is that in there?

MR. LUELLEN: I'd have to check the detail to receive the answer to that question. I think that was also included. Everything that was available from the application and available in the published realm was included in the SER that I'm aware of.

MR. CLOW: Thanks.

Relative to the Sequoyah Fuels, Question 29: What limits are there for the amount of thorium-230 and thorium-232 allowed in the Sequoyah Fuels alternative feed material received at the White Mesa

Mill?

MR. MERRELL: There are no specific regulatory limits as to the maximum allowed concentrations of either thorium-230 or thorium-232. However, those concentrations aren't limited indirectly by the requirement that the operation be protective of human health and the environment. And that is done by several analyses. Those analyses were conducted by the licensee and reviewed by the Division and found to meet all of the applicable regulatory requirements for human health and protection of the environment.

And then an extra layer of safety is provided by verifying this through the environmental monitoring program.

MR. CLOW: Thank you.

Question 30: Are thorium isotopes being individually monitored in the tailing cells' leak detection systems?

MR. JOHNSON: No, they're not, and they're not required.

MR. CLOW: Thanks.

Question 31: What is the current Emergency Response Plan for the White Mesa Mill and what procedures does it provide for addressing and

handling uncontrolled liquid releases from the mill now that Roberts Pond is no longer in existence?

MR. ROBERTS: Since the closure of Roberts Pond, the mill has operated without the need for an emergency containment. In the event the mill should experience a situation that a emergency release is necessary, the liquids will follow the existing contours and drainage into Cell 1. Any contaminated soils resulting from that liquid release would be cleaned up and placed into one of the active tailing cells.

MR. CLOW: Thanks.

Question 32: Why is the White Mesa Ute community not on any list or communication tree for any emergency involving potential off-site or public releases of hazardous or radiological substances?

MR. ROBERTS: Energy Fuels is not required to make direct notification to the Ute Mountain Ute Tribe as a part of the Emergency Response Plan. Notifications are given to the local authorities who then coordinate efforts as needed with members of the public.

MR. CLOW: So similar to Question 32, Question 33 was a multitiered question. So we're going to just shorten it down in the interest of time

and simplify it.

Why didn't the Division promptly notify or require EFR to promptly notify the White Mesa community and other neighboring communities of recent radiological incidents involving transportation of radioactive materials on public highways regularly traveled by school buses and residents of White Mesa and surrounding communities?

MR. JOHNSON: EFR followed the requirements to notify the Division, and the Division also followed our requirements to notify the NRC and others. So those -- as far as notifying the White Mesa Mill -- I mean, White Mesa community, sorry, that was not required.

MR. CLOW: Besides the Nuclear Regulatory Commission, the NRC, who are the others you're referring to?

MR. JOHNSON: So we have a database that when we have an incident, we fill that into. I only know them by the acronyms. Maybe Gwyn could help me out.

MS. GALLOWAY: The National Operation Center for the Nuclear Regulatory Commission must be notified. If it involves transportation, the U.S. Department of Transportation has to be notified for

hazardous materials. A number of them also, in addition to what we call the NRC, the Nuclear Regulatory Commission, the National Reporting Center, NRC, has to be notified.

So there are various agencies that must be notified through regulations.

MR. CLOW: Did you notify the National Response Center of this incident?

MS. GALLOWAY: The National Response Center was notified.

MR. JOHNSON: And those spills were below reportable quantities as well.

MR. CLOW: Does the reporter need a break?

COURT REPORTER: I'm okay. Thank you.

MR. CLOW: Okay. Question 34, then: What measures are being taken to prevent radiological incidents involving leaking shipments of radioactive waste and other radioactive materials to the White Mesa Mill?

MR. ROBERTS: Control of radioactive waste shipments is the responsibility of the shipper by not Energy Fuels prior to reaching the White Mesa Mill. So we are not controlling those.

But shipments are regulated by, again, as said, the U.S. Department of Transportation.

MR. CLOW: Thanks.

What measures are being taken --

Question 35: What measures are being taken to ensure prompt notification to the White Mesa community and other nearby communities of radiological incidents at or in connection with the White Mesa Mill or along the public thoroughfares?

MR. ROBERTS: Again, this is the same response as the earlier question along that line. We're not required to give direct notification to the Ute Mountain Ute Tribe. The Emergency Response Plan requires that we notify the local authorities who then take responsibility for notifying and coordinating with members of the public as needed.

MR. CLOW: So San Juan County emergency response is who you call?

MR. ROBERTS: San Juan County, the City of Blanding. The Sheriff's office basically.

MR. CLOW: Would it be acceptable for you to call the BIA police who patrols on the reservation?

MR. ROBERTS: I think there's merit to discussing with Energy Fuels management some type of coordination with the Ute Mountain Ute Tribe, depending on what kind of arrangements could be arranged along that line, what kind of procedure

could be established.

But that's something that I'm going to have to have Energy Fuels management evaluate.

MR. CLOW: We'll reach out to David Frydenlund on that. Thank you.

Question 36: What is the most current Spill Prevention, Controls and Countermeasures Plan, SPCC Plan, and when was it updated for the mill?

MR. RUSHING: The most current and updated SPCC Plan is dated December 12th of 2016.

MR. CLOW: Relative to that, Question 37: Since Cell 2 is in interim closure and accepting no more material from the mill operations, where will contaminated soils and residues from spills be disposed and where is this information reflected in the current SPCC Plan or other plan?

MR. RUSHING: Part 7 of the SPCC specifies that on-site personnel will assess a spill and direct corrective actions, including potential disposal of contaminated soils or residues. So the mill is determining that, per previous comment, that material will go into an active tailing cell.

MR. CLOW: Thanks.

Question 38: What protections from radiologic or other impacts from the mill are in

place for wildlife such as deer, coyotes, rodents, and birds?

MR. JOHNSON: So right now the mill uses physical barriers such as fences. They also use statues of large eagles and loud noise-making machines to deter wildlife from being within the restricted area.

And then also, one of the benefits of draining the wildlife ponds, that there's no water source close to the -- to the mill site.

MR. CLOW: Cell 1 isn't an evaporative large body of water?

MR. JOHNSON: It's a solution. It's not really monitored.

MR. CLOW: Okay. So are you using -- do you know, are the CO2 cannons firing again there, as far as loud noise making?

MR. JOHNSON: They're available. So I was told they have bangers, screamers, propane cannons. All of those are available.

MR. CLOW: Okay. They're available. Thanks.

Do you think the -- the fencing is adequate to keep deer away from the tailing cells?

MR. JOHNSON: Around Cell 4A and Cell 4B,

yes.

MR. CLOW: And Cell 3?

MR. JOHNSON: Cell 3 does not have the same fencing, no.

MR. CLOW: Thank you.

This was alluded to earlier, but Question 39: How many water wells were drilled historically on the White Mesa Mill property into the Navajo aquifer?

MR. GOBLE: There's historically been six deep water supply wells. Three have been abandoned, so there's three currently on site. They were all constructed in accordance with the requirements of the Division of Water Rights.

For the wells particularly, because you asked where they're located, Well WW-4 is located upgradient to the far north of the White Mesa Mill nonrestricted boundary. WW-2 is located a quarter mile upgradient of the mill building. WW-5 is located along the eastern boundary near the air monitoring station BHV-6 along Interstate 191. And all of these deep water supply wells are drilled to approximately 2,000 feet below the ground surface, and they are cased with steel tubing to a depth of approximately 1250 feet below the ground surface, and

the casing is grouted from the surface to the top of the Brushy Basin Member. And the Navajo aquifer is an artisan pressure in the region which would be unlikely for any contamination to reach the aquifer.

MR. CLOW: Where were the other three wells drilled?

MR. GOBLE: Do you remember, Harold?

MR. ROBERTS: One of them was drilled directly to the east of the mill ore storage pad which was the original well on site. One of them was drilled directly to the east of Cell 1. And the other one was actually drilled very close to the most northern well. Is that No. 3? And that was abandoned several years ago because of a casing collapse.

MR. CLOW: Thanks.

I guess the third part of that, which Phil described as far as the structural engineering of the well. What has been done to protect the Navajo aquifer from potential migration of contaminants from the mill and tailings via the historic wells?

MR. GOBLE: So it was built in accordance with water volume [driller requirements] -- Division of Water Rights. And like I said, there is actually a seal at the Brushy Basin Member which prevents

migration to the lower aquifer.

MR. CLOW: Thanks.

Question 40 --

MR. RANDALL: Can I just interject here? It looks like we're making really good time, but I'd like to make a motion to maybe have a break. It Looks like we're a good halfway through the hearing.

MR. ANDERSON: Ten-minute break?

MR. RANDALL: Ten-minute break. Looks like we're making good time.

MR. ANDERSON: Yeah. Yeah.

(Short recess taken.)

MR. ANDERSON: Scott, do you want to continue?

MR. CLOW: Sure. Thank you.

Question 40: Does the proposed phased test plot approach for reclamation of Cell 2 give Energy Fuels another seven years to implement final closure on the cell?

MR. TOPHAM: I'm not sure really how to answer that question. I don't think the two are really connected. The licensee could use the currently approved rock armor cover to close today. As we discussed earlier, there's benefit to leaving the last two layers off until the settlement is

complete. So it's totally driven by physical processes rather than by a calendar timeline.

(Clarification by court reporter.)

MR. RANDALL: It's driven by physical processes not a calendar timeline is what he said.

MR. CLOW: How long has Cell 2 been drying and settling? I think Harold has mentioned that earlier, but ...

MR. ROBERTS: I think we determined -- figured Cell 2 was actually closed officially in 2008.

MR. CLOW: Thanks.

Question 41: When URS -- I think the follow-up question, A, on that was already answered by Mr. Topham.

Question 41: When URS reviews documents submitted by Energy Fuels, is URS acting as a contractor for the State of Utah or as a contractor for Energy Fuels?

MR. GOBLE: So as Gary Merrell introduced himself in the introduction, basically URS is here as a contractor for the State of Utah --

MR. CLOW: Thanks.

MR. GOBLE: They have reviewed it on behalf of the Division.

MR. CLOW: Okay. Question 42, I'm going to reword it a little. It was a little bit of leading into the way it was phrased.

So under Subpart W, Rule 40 CFR Part 61 Subpart W, of the Clean Air Act, as a phased disposal facility, why is Energy Fuels allowed to fill Cell 4A and 4B with tailings and liquid 11e.(2) wastes before completely filling Cell 3 with such tailings and wastes bringing it closer to immediate drying and final closure?

MR. ZODY: Object to the extent it calls for a legal conclusion, and it's not directly relevant to the licensing action. I'm just preserving the record on that.

MR. ANDERSON: Go ahead.

MR. CLOW: Okay.

MR. GOBLE: Oh, the answer? Okay.

Well, Tailing Cell 3 is the tailing cell that's currently for ISL disposal. It is the most suitable because it's a -- you can actually drive on it safely. To require ISL disposal into 4A at this moment wouldn't actually be safe because it would go into the damaged -- it would actually damage the liner as you try to go down there for disposal.

With the new Subpart W rule, Tailing Cell 4B

is currently used as a nonconventional impoundment. So there are no tailings that have been placed in Tailing Cell 4B.

So Energy Fuels, their plan is not to move in the Tailing Cell 4A -- I mean, sorry, Tailing Cell 4B until they are ready to close Tailing Cell 3. Those are the reasons for a safety factor.

MR. CLOW: But they're not putting tailings per se into it? They're just putting ISL 11e.(2) byproduct material?

MR. GOBLE: It's process solution. According to Subpart W, it's considered a nonconventional impoundment. It doesn't count against the tailing cells and operation.

MR. CLOW: Right. I meant into Tailing Cell 3, they're not putting tailings in there. They're putting liquid ISL waste?

MR. GOBLE: They are not putting any tailings currently into Tailing Cell 3. It is currently used for mill waste, and also they use that cell for ISL disposal. There's no tailings being placed in Tailing Cell 3 right now. All tailings are going to Tailing Cell 4A.

MR. CLOW: Is that going to happen forever, for the foreseeable future? Is it going to ever

receive any more tailing cells and, you know, get into closure sometime?

MR. GOBLE: That's speculation, but Energy Fuels, if they want to, they can answer when they think they might close Cell 3.

MR. ROBERTS: Let me clarify that there is still some remaining capacity in Cell 3 for tailings material, for tailing sands. And we're preserving that capacity right now. But it -- as Mr. Goble said, it is primarily used for ISL waste and some of our mill site debris. But there is capacity still for tailing sands.

MR. CLOW: Thanks.

Question 43: Why has Cell 3 been designated as the most appropriate disposal location for ISL wastes?

MR. TOPHAM: I am presuming that the question centers on why is this the most appropriate place on the facility; is that correct?

MR. CLOW: Yes, at the White Mesa Mill for the waste they're approved to receive.

MR. TOPHAM: Okay. A quick cataloging of the potential uses of all of the five cells would be a -- in order at this point. Cell 1 and Cell 4A are used for process fluid control only -- 4B. I mean.

4B, I'm sorry. One -- Cell 1 and 4B are being used for processed fluid control only and are not authorized for receipt of tailings at this point.

Cell 2 is closed and, therefore, cannot receive anything at all further, other than the remaining layers of the cover system.

Cells 3 and 4A are available for tailings and for RSR and plant -- plant debris.

Now, why is No. 3 the most appropriate? Right now, the tailings beach in Cell 4A is too thin and unstable to drive on. So they couldn't get a truck down there to place ISR waste in Cell 4A without damaging the liner.

That leaves Cell 3. There is sufficient protection of the liner to make Cell 3 safe.

MR. CLOW: Thanks.

Is Cell 3 safer for the protection of public health and environment than Cell 4A or 4B for the disposal of ISL wastes?

MR. TOPHAM: At the current -- at present, yes, for the reasons stated previously. You'd perforate the liner on either Cell 4A or 4B if you tried to drive your trucks into deposit ISR decommissioned debris.

MR. CLOW: For Question 45, we're going to

shorten it and simplify it.

Why has the division not required a hydrologic investigation of shallow groundwater to be conducted in a southeasterly direction from the mill facilities in the area of MW-22? I believe we touched on this, but ...

MR. RUSHING: Yeah, so it sounds like you removed the element of the recent recharge from the question?

MR. CLOW: (Nods head.)

MR. RUSHING: As discussed in -- in previous questions, the University of Utah study confirmed that mill activities were not impacting Monitoring Well, MW-22. The University of Utah report does state that an extremely localized area of recharge is occurring near Monitoring Well MW-22. The University of Utah report also states that because of its location, it is unlikely that MW-22 is being influenced by similar aspects of the groundwater system as the other monitoring wells.

Again, since MW-22 has been verified not to be impacted by mill activities, requirements for EFR, Energy Fuels Resources, to identify the localized source of recharge is not warranted.

MR. CLOW: So it wouldn't have been

influenced by the mounding at all?

MR. RUSHING: The University of Utah study confirmed that it was a standalone source of recharge located in the immediate vicinity of Monitoring Well MW-22.

MR. CLOW: Thanks.

Question 46: What was the Division's rationale for requiring a hydrologic investigation southwest of the tailings cells, and why doesn't this rationale support a need for a similar or expanded investigation to the southeast?

MR. RUSHING: There's no rationale to require a southeast study.

The southwest study was conducted to define unsaturated portions of the shallow aquifer in the southwest area as identified during the construction of Tailing Cell 4B monitoring that work. And also to confirm that Cottonwood seep was connected to the shallow aquifer. There is really no technical basis to require a study in the southeast.

There's also no technical basis to locate a monitoring well specified in the question. I don't know if you removed that portion of the question.

MR. CLOW: No, I was going to ask it.

Go ahead.

MR. RUSHING: Well, if you want to go ahead and ask that portion.

MR. CLOW: Sure. The second part: Will the Division consider requiring a monitoring well located approximately 350 meters or 1200 feet east of Well MW-17 to verify that potential contaminants are not migrating in this direction?

MR. RUSHING: And there's no technical basis to locate a monitoring well in the location that you specified. Cross gradient monitoring wells currently exist in that same area.

MR. CLOW: So how many wells were drilled in the southwest investigation, the DW series?

MR. GOBLE: The DR series, the Dry Ridge series? Approximately, I think 15.

MR. CLOW: But you're not seeing any rationale for drilling one in the southeast?

MR. RUSHING: Again, the reason that the southwest study was conducted was because dry areas were noted in the southwest area when installing the monitoring network for Cell 4B, and the intention of that was to delineate those dry areas and investigate the impacts of them.

That same -- that same situation does not occur in the southwest area or has not been

determined to occur in the southwest area -- in the southeast area. Sorry.

MR. CLOW: If there aren't any wells, how do you know it's wet or dry down in that area?

MR. RUSHING: Well, you don't. But currently, there are monitoring wells located around the tailing cells and mill operations in the east and southeast of the mill activities, and they were not shown to be impacted by dry areas. That's what began the southwest study.

MR. CLOW: Thank you. We'll shorten 47.

Has the Division notified other divisions within Utah Department of Environmental Quality about the potential risks to human health so private individuals using the Burro Canyon aquifer as a domestic source, who would be pumping much more frequently than the mill monitoring wells, are protected?

MR. RUSHING: So I answered the -- the element of that question. No other DEQ divisions have not been notified and explain them in order.

Pyrite oxidation is accepted as a possible explanation for sitewide pH decreases. I would note that we're seeing those pH decreases in wells upgradient from the mill facility and also far

downgradient from the mill facility.

It has been confirmed -- identified and confirmed, that tailings wastewater is not causing those pH decreases. And in order to make that determination, we needed to use multiple lines of evidence.

Increased pumping of the aquifer, and it's a low permeability shallow aquifer, was offered as one of several potential ways that oxygen could potentially be introduced around the well screens aiding in pyrite dissolution.

MR. CLOW: You said far downgradient of the -- of the mill facility.

How far downgradient are we seeing the pH decline?

MR. RUSHING: It's on a well-by-well basis. I would have to have data in front of me. I don't have that right offhand.

MR. CLOW: So MW-22 is approximately a mile south, give or take. Further south than that, the tribe has monitoring wells. The pH is stable. We've been pumping those things dry with sampling events, which would theoretically introduce oxygen the same way as the pyrite theory and the pH is stable.

How about the people who are pumping their

wells every day in Blanding?

MR. RUSHING: Well, again, so it's a low permeability aquifer. When that particular mechanism was discussed in the pyrite investigation report and the pH report, it was noted that the mill was conducting a lot more groundwater monitoring at the facility for -- a lot of wells were conducting quarterly groundwater sampling. They're pumping frequently.

In addition, we have the corrective action monitoring wells that are being pumped continually, and just based on a -- an increased number of wells and increased monitoring frequency, in addition, the addition of the corrective action plan wells, that's creating more of a condition where you have that -- again, that pump down and recharge in the well screens around that well screen area.

MR. CLOW: Thanks.

Question 48: Why are increases in levels of the Division's groundwater indicator parameters, i.e., chloride, fluoride, sulfate, and uranium, concentrations in MW-31 from 2009 to 2016 not considered potentially from the tailing cells?

MR. RUSHING: So I went back and looked at the indicator parameters for Monitoring Well MW-31,

again, those parameters are chloride, fluoride, sulfate, and uranium.

In MW-31, the fluoride is showing a decreasing trend. The uranium concentrations, although they're showing a slight increasing trend, the concentrations themselves are very low for monitoring wells in the facility comparing ranges 6 to 9 micrograms per liter.

The sulfate is showing a moderately increasing trend, but it appears to be stabilizing towards the most recent monitoring data.

And chloride, there's a complication with using chloride at that monitoring well because it's right on the margin of the nitrate and chloride plume. So typically in source assessments, we don't use chloride as the indicator parameter. Therefore, indicator parameters as a line of evidence alone do not support a mill-related source for any of the parameters currently and have a combined status at that well.

And I would note that indicator parameters are only one of multiple lines of evidence that are used to support findings whether or not mill activities are the source for those out-of-compliance parameters.

MR. CLOW: So three out of four are showing some signs of increase but not fluoride.

MR. RUSHING: Fluoride is showing decrease.

The uranium -- you know, per my review, I would say that uranium is essentially a flat trend. And in addition to that, the uranium concentrations are extremely low, not what you would expect in the case of a release from the tailing cells.

MR. CLOW: Thanks.

Question 49: What were the coefficients of retardation and mobility determined for the selection of key groundwater indicator parameters?

MR. RUSHING: So, again, those are the chloride, fluoride, sulfate, and uranium. And the indicator parameters used in source assessments were selected based on literature values, use parameters with literature values with low retardation and higher mobility. Or alternately, in the case of uranium, we're using that due to its high concentrations in the tailing cells.

MR. CLOW: Thanks.

Question 50: What, if any, laboratory testing was performed to assess the absorption capacity of the Burro Canyon formation at the mill?

MR. RUSHING: That's a rather broad

question. The only study that I'm aware of where laboratory testing was conducted was testing that was conducted to support work done for the Infiltration and Contaminant Transport Modeling. Part of that modeling was to predict masses of -- of hydrous ferric oxide and calcite in the Burro Canyon aquifer, the unsaturated portions of that. For that testing, bedrock -- a bedrock extracted solution was analyzed for several metals and ions.

I would note that based on that -- that analysis and the geochemical modeling that was done based on that analysis, it was found that chloride, sulfate, and fluoride, three of the indicator parameters, were predicted to migrate with little or no absorption.

MR. CLOW: But uranium would be absorbed in the -- in Burro Canyon?

MR. RUSHING: You know, if you look at the -- and I'm referring to the first Infiltration and Contaminant Transport Modeling. Uranium is not -- is definitely not predicted to be a conservative tracer by any means.

But with the metals, it's -- it's more complicated to say whether or not one is going to have more absorption or less. And even the study,

when they look at the metals, they will state per the modeling results, these metals are predicted to be more mobile. However -- they always put in the "however" statement -- based on other information, these metals may not be as mobile as reflected in the modeling results.

Again, we used uranium as a tracer because it has high concentrations in the tailing cells.

MR. CLOW: Thanks.

What -- which transport model was that, approximately?

MR. RUSHING: I think that was the -- in 2009.

MR. CLOW: Question 51, we actually had a typo in there when we submitted it. So I'm going to reword that one and simplify it.

Was the acidity of the tailing solutions taken into account in assessing the absorption capacity of the Burro Canyon formation?

MR. RUSHING: Yes. The -- the tailings wastewater source was measured and characterized with a geochemical modeling in the Infiltration and Contaminant Transport Modeling.

MR. CLOW: Thanks.

And the last one. Question 52: Does the

Division's implementation of the groundwater discharge permit and related regulatory actions comply with the methodology for assessment and remediation of groundwater contamination described in EPA 530-R-04-030, Handbook of Groundwater Protection and Cleanup Policies for RCRA Corrective Actions, for facilities subject to corrective action under -- excuse me, subtitle C of the Resource Conservation and Recovery Act?

MR. GOBLE: So the White Mesa Mill property is actually an 11e.(2) site not a RCRA site. So therefore, it's not applicable.

MR. CLOW: So it's not applicable, but does your discharge permit comply with it?

MR. GOBLE: Does the groundwater discharge permit comply with it? The groundwater discharge permit complies with the rules of R317-6. Again, this is not a RCRA site.

MR. CLOW: Right. I guess where we're going with that is we've been informed that that's the guidance document for the implementation of the groundwater permit. So if it's not applicable, then, you know, perhaps it shouldn't be implemented that way.

Is there another guidance document, a State

guidance document that you use to guide the implementation of the groundwater permit to protect groundwater?

MR. GOBLE: We actually use the rules defined in R317-6, groundwater protection rules.

If you have evidence that you'd like to present in your final, you know, formal comments, I will take a look at it.

MR. CLOW: Thanks. We appreciate the opportunity to be here today.

MR. GOBLE: All right. Thank you, Scott. Thank you, Michael.

* * * * *

MR. ANDERSON: Okay. The next commenter is Uranium Watch, Sarah Fields.

MS. FIELDS: My name is Sarah, with an "h," Fields, and I'm with Uranium Watch in Moab, Utah. Thank you for the opportunity to come here and ask questions.

I'm sorry. I'm reading from my computer.

Okay. My first question: Does Energy Fuels US -- Resources USA, Incorporated, own the roadway between State Highway 191 and the mill entrance gate and pay property taxes on the road and land between -- and the land between the road and the

fenced mill area?

MR. ROBERTS: The mill access road is a private road on property owned by Energy Fuels Resources. Energy Fuels pays property taxes on all the property that the company owns in San Juan County.

MS. FIELDS: Okay. Thank you.

What epidemiological or other health studies are being or have been conducted to evaluate the impacts of the operation of the mill on the health of the community and mill workers? I mean, specific to White Mesa.

MR. GOBLE: So as I stated in response to one of Scott Clow's comments, there was an environmental impact statement conducted by -- completed by the NRC before the mill was actually put into operation. Since then, there hasn't been an epidemiological study being done, nor is there one to be required to be done.

As I stated before, the standards that are put in place for the public and also workers are -- were done with the international multiyear studies to determine what would be the best suited for the public and the mill workers. There hasn't been any exceedances of the limits at the boundary.

Also, as I stated, the -- the limit for a Rad worker at the White Mesa Mill is actually 5,000 millirem, and the average we've seen over the last ten years ranges anywhere from 80 to 180 [millirem], so well below the limit.

MS. FIELDS: Thank you.

Questions 2.1: How has the Division fulfilled requirements with respect an environmental analysis of, one, the White Mesa Mill license renewal; and two, the mill reclamation plan?

And I was referring to the requirement for an environmental analysis in 42 U.S.C. Section 2021(3)(C) and I wanted to know how that was -- how that requirement was fulfilled.

MR. RANDALL: So I'm going to start answering this question because it's a legal question in part.

During the time that the NRC managed this mill, NEPA applied and was followed until 2004. Under federal law, under the law that you just cited, agreement states are not required to follow NEPA, per se. Instead, the Atomic Energy Act requires that agreement states like Utah undertake written environmental analysis. The Utah rule is codified in UAC R313-24-3.

There's a detail legal memorandum that the attorney general's office has prepared on this topic dated February 22, 2017, that was provided to Uranium Watch. And I want to go ahead and make sure it gets incorporated into the record here because it's a more detailed analysis of the legal issues.

The other thing I want to say is that virtually everything that the Division does in connection with the licensing action is in substance a form of environmental assessment within the meaning of the rule and within the meaning of the Atomic Energy Act regardless of whether the document or analysis is formally entitled an environmental assessment. So I would say on virtually everything that we've done, this qualifies as an environmental assessment generally.

And, Phil, you have more details as far as specifics on what you've done.

MR. GOBLE: Sure. So for the specific licensing action that Sarah is talking about, as you'll remember, we actually started the public comment period -- the initial public comment period for the license renewal actually goes back in October of 2011. And part of that package was a Safety Evaluation Report put together.

We received public comments from the public, and what we did is we -- after looking at those, DRC management at the time -- they did a radiation control management at the time, they decided that, you know, more work should be done in addition to the comments received from the public. And so we decided to do our own independent MILDOS evaluation.

And so when we went back out to public comment, there was a bunch of other documents you guys have seen. So there was a technical evaluation -- technical evaluation and environmental assessment. There was a statement basis for the groundwater permits. There was a Safety Evaluation Report for Sequoyah Fuels.

So in addition to what we actually held [sent] out for public comment now, what we did back in 2011 for the public comment period then is also part of the record for this action.

MS. FIELDS: But in 2011 that didn't include the reclamation plan. And as part of your review of the reclamation plan, I really didn't see any kind of environmental analysis associated with the reclamation and long-term care of the tailings.

MR. GOBLE: So the reclamation plan that's out for public comment right now is identical to the

one that was approved by the NRC back in 1996, with the exception when Tailing Cells 4A and 4B were constructed, we basically added the design drawings for the cover to be the same. So that's why the previous was actually tailing -- it was actually Reclamation Plan 3.2B.

On our website, and as part of the record for actually what was done for Reclamation 5.1, you can see the different rounds of submittals. You can actually see our interrogatories going back with them, formalizing ways to protect, you know, the environment, and make sure things were done appropriately were actually incorporated into the stipulated consent agreement we talked about earlier of the test area that Russ described.

So it's included in -- in the technical evaluation of our -- technical evaluation of our annual assessment, in addition to what's referenced with the stipulated consent order. And those are actually available on our website.

MS. FIELDS: Okay. Do you know if in 1996 the NRC issued a public notice and opportunity for public comment on their approval of the reclamation plan? I'm sorry. I wasn't involved in this in 1996, so I really don't know myself.

MR. GOBLE: I was in -- I was a senior in high school in 1996, so I honestly couldn't tell you that either. So I'm sorry, Sarah. That was the NRC.

MS. FIELDS: Okay. Well, I'll look into that.

MR. GOBLE: Thank you.

MS. FIELDS: Thank you. Okay. So you answered those questions.

Oh, as a -- I hope that the transcript will be made available as soon as possible and before the end of the comment period so anybody can look at your answers, because it's hard to listen and take notes and get a full understanding of your responses without actually seeing a transcript of it --

MR. GOBLE: Sure.

MS. FIELDS: -- your responses.

MR. GOBLE: I don't have a problem with that, but that really depends on whether she can provide -- because this has, you know, been almost a four-hour meeting. I guess that's -- depends on when she can get it to us.

If she can get it to us before the close, I'll be happy to share that with you, but I can't speculate when we get that.

MS. FIELDS: Okay. Thank you.

I know I got a memo regarding my questions about the mine water from the Canyon Mine. But I do want to know, have an understanding of when Energy Fuels commenced shipping the mine water to the mill and when did it cease? That's assuming that it has ceased, and if it, in fact, has solely been used to -- for -- in the processing circuit rather than direct disposal.

And I wanted to know how long they -- and if they intend to continue shipping mine water from the Canyon Mine to the White Mesa Mill.

MR. RANDALL: That's a question -- I mean, technically under our procedural rules, I mean, the question-and-answer hearing is supposed to be for the Division.

We've taken the position that all of these questions about the -- the water from Arizona are not relevant. I suppose if -- since we're all here, if you-all want to volunteer to answer.

Or what's your position, Mr. Zody?

MR. ZODY: It's up to you guys.

MR. FRYDENLUND: The water has been used as processed water at the mill, it has not been directly disposed of.

What was your other question?

MS. FIELDS: How long -- are you -- I wanted to know when shipments started and when shipment has ceased. I'm assuming that you're no longer shipping that -- trucking the water.

MR. FRYDENLUND: I do not believe there's any water being shipped at this time.

MS. FIELDS: Do you intend to continue maybe next year --

MR. FRYDENLUND: I don't know.

MS. FIELDS: You don't know.

MR. FRYDENLUND: No.

MS. FIELDS: Okay. Thank you.

This has to do with the shipment of the Cameco resources and ISL waste. Question 4 -- Questions 4.1: Is the Division satisfied with the NRC's inspection and findings of the factors that led to the spill of barium-radium sludge at the mill?

MR. JOHNSON: Yes.

MS. FIELDS: Have you evaluated the problems associated with Energy Fuels' actions when leaking shipments were discovered by mill staff and informed Energy Fuels of what actions mill staff must take in the future when leaks and spills are discovered, for example, documenting the spills and leaks before any remedial action commences?

MR. JOHNSON: Yes. So we evaluated each of those incidents with the mill, and we identified ways that they can improve their notifications. And they've made changes to their SOPs.

MS. FIELDS: Okay. So these changes will occur in -- have they already occurred in new SOPs or they will in the future?

MR. JOHNSON: They are -- they have been implemented, yes.

MS. FIELDS: Have you determined any changes in Division practice for inspections of the mill when they're receiving waste? Because I know there have been instances where you actually are there on site when they receive waste for disposal.

MR. GOBLE: So this is your Question 4.1.4?

MS. FIELDS: Yeah.

MR. GOBLE: Yeah. The answer is no, we don't plan on a change or inspection [for inspections] based on the March 29, 2016, leak you're referring to.

So currently, what the Division does is we conduct four quarterly inspections related to ISL disposal. And actually, since the March 29, 2006 -- 16 leak, there hasn't been any shipments from Cameco that have gone to the White Mesa Mill.

And in our normal frequency of quarterly inspections, we've actually inspected shipments from Cameco before for the same type of material. So what Energy Fuels is required to do when a shipment's coming in, they're required to notify us, and then we go down on a quarterly basis.

In addition to that, as part of one of our quarterly inspections, we do kind of an overview for the entire year to make sure that Energy Fuels was doing what was required according to their license or standard operation procedures.

So it's expected that if they were to start again, we would see them in our normal routine inspection frequency.

MS. FIELDS: Also, I -- thank you.

I wondered if the Division has developed an environmental analysis of the potential impacts from spills of ISL and other materials shipped to White Mesa. As it happened, that material apparently spilled right at the entrance of the mill, but the truck went through -- went through Moab. It went through Monticello. It went through Blanding. And if that had spilled along the roadway, it would have been dispersed over a wide area and people wouldn't really have known about it until after the fact.

And I've just wondered what kind of analysis you've done of the potential impacts, if there are spills in the future.

MR. JOHNSON: So we haven't performed an environmental analysis.

However, when we are -- we are notified of an incident like that, we do have procedures that we follow, which include sitting down and discussing what the incident is and what proper -- what kind of responses that we need to do at the time.

MS. FIELDS: Okay. Thank you.

I'll go on to the draft License Condition 9.7 which has to do with the cultural resources at the site. And in License Condition 9.7, there are three referenced documents from the 1980s.

And I wonder, are the three referenced documents readily available to the Division staff and the public? I really haven't been able to locate those documents. And I find it difficult, if you reference a document in the license, if that document isn't avail -- readily available to me, it's not readily available to the staff. And it -- that makes it difficult for both the staff and the public and also the licensee to know exactly what the requirements are, particularly you're going back to

the 1980s, so ...

MR. GOBLE: So the documents are available to Division staff, but they're not available to the public on the DEQ's Easy Search that I think you're referring to. So when we started having electronic data -- the document database available to us as a department, the Division director of the Division of Radiation Control at the time made the decision that rather than going and scanning in everything that had ever come before, they drew a line -- he drew a line in the sand and we scanned everything after that.

And so those documents are available. If you want to put in a GRAMA request, Sarah, we'll be happy to send it to you.

MS. FIELDS: Yeah, I really feel that anything referenced in the license is -- has a very special status because it's part of the license and that those documents, any document historical, current, should be readily available because it's part of the license.

Also wondered if the memorandums of 1979 and '83 have been superseded by more current letters or MOUs. I guess that's between the State Historical Society, the NRC. I just wondered if any of these have been updated, if you're aware of any updates in

those agreements.

MR. GOBLE: No, they have not.

MS. FIELDS: Has the Division determined whether the July 1988 list of archaeological sites related to the White Mesa project submitted by the licensee is complete and accurate?

MR. GOBLE: So the July 1988 list that you're referring to for archeological sites, it's used as a guide as a survey of an area potentially impacted, but the potential sites are not limited to that original list.

So that was what they had observed at the time. There's been things that have been identified since then when construction commences.

What happens at that time as required by License Condition 9.7, they're required to retain an archaeologist to do an assessment of the work. That information gets sent to the state office of -- State Historical Preservation Office, and then we have to -- then basically, that letter -- the -- basically, they approve it. They send it to our division director, and we basically say, okay, you've got permission from SHPO to even proceed. And then we give the authorization for Energy Fuels to proceed. So that's what happens now.

MS. FIELDS: But do you think that that list needs to be updated, made more complete and updated?

MR. GOBLE: That was the list for what was going on at the time.

MS. FIELDS: Well, that's --

MR. GOBLE: Basically, we're talking about realtime. When there's something that needs to be done at the time, it's done on a realtime. So it's been updated several times since then based on what's been completed at the site. That's used as a guide for what was done at the time. There's not a reason to update a list of a guide that was presented in 1988 when we're already proactively and -- proactively responding to what is observed on site.

MS. FIELDS: That license condition referenced the April 13, 1981, letter regarding a research design.

Do you believe that that research design is up to date or should be -- there should be a reference to a more recent research design?

MR. GOBLE: So the -- my response to this question is the same as the previous question.

So when there's going to be a commencement of activities on the site that hasn't been previously evaluated, they're required to do this assessment

using an archaeologist.

For example, when they constructed -- when they planned the construction of Tailing Cell 4B, there was a survey that was done.

MS. FIELDS: So maybe in that license condition, it needs to be updated with more -- a little more accurate to reflect some of the comments that you've made.

But I'll put those in my reading comments. Thank you.

MR. GOBLE: All right.

MS. FIELDS: Okay. Under operational controls, limits, and restrictions, does the Division require the licensee to document the shipments of waste that are received at the mill to be processed? For example, the number of shipments, the number of containers in each shipment, type of container, source, weight, and other pertinent information?

Is the licensee required to test one or more containers to document and verify the radiological and non-radiological constituents of the materials?

MR. JOHNSON: So the answer to the question is no, they are not required to do it, but the mill does do it for their own purposes.

MS. FIELDS: So in some situation -- many of

the situations, you really don't know how many shipments, let's say, of waste from Metropolis, Illinois, come to the mill for processing and disposal.

MR. JOHNSON: We don't require the information, but if we need to know the information, it is available at the mill for us to inspect.

MS. FIELDS: Okay. And License Condition 10.5. I'll go to just the -- the third question there.

Does the current SOP for ISL disposal take into consideration the problems encountered with the shipments of ISL waste? I think you've already answered that question. Thank you.

MR. JOHNSON: Yeah. They updated it. So it tells personnel what to do when a leak is encountered. And it talks about how to notify the Division and what type of information we would need from them.

MS. FIELDS: So was that on the easy docs? Is that part of -- had that been posted, the new SOP?

MR. JOHNSON: I -- yeah. But it was mailed to us, so --

MR. GOBLE: It should be.

MR. JOHNSON: So it should be. If you can't

find it, let me know, and I'll -- I'll find it later, too.

MS. FIELDS: Okay. Thank you.

Do you require any detailed engineering drawings for the placement of each ISL waste disposal, and are they submitted? I know they're required to have the tail engineering drawings. I just wondered if they're submitted to the Division.

MR. TOPHAM: Well, as you stated, Sarah, in the question, the licensee is required to document the location of disposal of each load of ISL decommissioned debris that it receives. These data are available at the mill for our inspection, and we do look at it every time we do this kind of inspection. It's not routinely submitted to the Division. As such, we don't house that information here. And it is not -- therefore, not available on the Easy Search or -- or such.

The licensee can make that information available, if they choose to, to the public.

MS. FIELDS: Do you -- do you feel that that information is relevant to the final reclamation plan for Cell 3, where exactly the waste is disposed of, how much, where it's located?

MR. TOPHAM: I don't see how it would affect

the performance of the cell as far as protection beyond knowing that it's there.

MS. FIELDS: Okay. The licensee is required to monitor -- here I am seeing my misspellings -- the radon in the vicinity of the mill on a quarterly basis.

Why is there not a requirement to monitor the radon continually and report the data? And I'm -- I think we're all aware that they do have monitoring devices that continually monitor radon. And I wondered why it's not continual because four times a year may not exactly reflect the -- accurately the radon emissions at the site.

MR. JOHNSON: So the devices that they deploy actually record all of the radon that it comes in contact with while it's deployed. So what you see is the average over that period of time.

Do you understand?

MS. FIELDS: So what's the period of time? I got the impression that it's a very short period of time.

MR. JOHNSON: It's a quarterly. So they put them out once a quarter.

MS. FIELDS: Oh, so it's -- so I just misunderstood some of the information.

They -- they put the devices out quarterly so it measures the radon over that quarter.

MR. JOHNSON: Over that quarter, yes.

MS. FIELDS: Okay. Gotcha. Thank you.

Is there any requirement the licensee clean up any on-site and off-site radionuclide contamination above the EPA's would be Part 192 cleanup standard for uranium mills during the operation of the mill rather than waiting until mill closure? So when, let's say, there's a spill, when you're aware there's an area of uranium contamination that is possibly higher than the final cleanup levels, are you going to wait until the mill closure or are you going to require cleanup as you go, you might say?

MR. GOBLE: So the answer is yes, if they've exceeded the cleanup standard, they'll be required to address it. However, your question, you say on site and off site.

For off site, it would be something you would have to address, you know, immediately. If it was on site, it would be basically a case-by-case basis whether it needed to be taken care of immediately or not.

MS. FIELDS: Okay. Thank you.

I'm going to go to Cell 2.

Question is: Will the licensee continue to monitor and report the radon emissions from Cell 2? They're currently required to measure those emissions twice yearly and report that, and I wondered if that's going to continue.

MR. GOBLE: Yes. As you stated, the radon flux sampling is done at Tailing Cell 2 on a semiannual basis, and this will continue until the licensee can demonstrate to the director's satisfaction the cover construction of Tailing Cell 2 is successful in meeting the radon flux standard.

MS. FIELDS: Okay. Do you have any estimate of the -- of when that final measurement is going to take place?

MR. GOBLE: I can't speculate. With, you know, the most recent sampling that showed it was a 0.5, and that appears to be working. But we'll have to watch it over time to determine whether that's lasting or not, but ...

MS. FIELDS: One -- the next question is when Cell 3 ceases operation and no longer falls under the Subpart W requirement, does the Division intend to require monitoring, reporting, and compliance with the 20 picocuries per meter squared

with radon emission standard and -- and mitigative measures if Cell 3 exceeds the standard? In other words, are you going to treat Cell 3 when it enters closure the way that you treat Cell 1?

MR. GOBLE: Cell 2?

MS. FIELDS: I mean Cell 2. Sorry.

MR. GOBLE: Yes. The answer is yes. The requirement is the same thing that's required for Cell 2 in accordance with 10 CFR 40, Appendix A, Criterion 6.

MS. FIELDS: Okay. And then there was a discussion of the July 3rd -- hope I got that date right -- letter which required the monitoring of Cell 2. And the licensee was supposed to submit information in their Environmental Monitoring Plan for procedures for radon flux from Cell 2, but it doesn't appear that they did so, because I -- I checked the Environmental Monitoring Plan from September and December 2014, and there didn't appear to be any procedures for Cell 2.

MR. GOBLE: So yes, that's correct. It is not there.

If you look at the letter where we suspended them and had to start sampling for Subpart W, but they had to start sampling under 10 CFR 40,

Appendix A, Criterion 6, we said the Division requests they put this in their, you know, procedures. Well, we didn't get it, but they're still doing what they're supposed to do. They're collecting the semiannual samples and they've been submitting reports as necessary.

So you could say it was an oversight, but the end result's the same. They're doing the required sampling.

MS. FIELDS: Okay. Thank you.

Now I'll move on to some of the issues related to the License Amendment Request to process the Sequoyah Fuels waste. And as already discussed, the NRC has determined that the Sequoyah Fuels waste is 11e.(2) byproduct material.

So the question in my mind is when does it become ore? Because for the waste from the processing of this 11e.(2) byproduct material to also be defined as 11e.(2) byproduct material, the material has to somehow become ore, and I just wonder at what point in time and place is that 11e.(2) byproduct material going to revert to ore so that after it's processed, the waste can also be defined as 11e.(2) byproduct material.

MR. JOHNSON: Okay. When the license

condition for the Sequoyah Fuels material is approved, it would be considered an alternate feed. It can be processed as ore.

MS. FIELDS: But is it ore?

MR. JOHNSON: It is ore as defined by alternate feed, yes.

MS. FIELDS: As defined -- is this a regulation or a statute?

MR. JOHNSON: No, it's not.

MS. FIELDS: Okay. So my next question was which reg -- federal and state statutes and regulation, that is definitions and requirements that enforce and effect, apply to the process whereby material is ore and is processed to become 11e.(2) byproduct material and then comes to a mill and then is processed again and then somehow reverts to ore, what I've discussed. So what -- what statutes and regulations apply to that convoluted definitional process?

MR. ZODY: I'm going to just object to the question. It calls for legal conclusion. And the issue's been resolved in the Fansteel case ruled upon by the board, and the rules were established at that time.

MS. FIELDS: What right do you have in this

hearing to -- to object to my question?

MR. ZODY: I'll let the hearing officer address that.

MR. ANDERSON: It's provided for in the administrative rules that have been adopted by the board that objections can be interposed during the hearing.

MS. FIELDS: Well, do you agree with that objection?

MR. RANDALL: Well, let me speak to that.

I think part of the answer, the State of Utah did appeal this issue to the NRC in the past. I'm not personally that familiar with the case. I think it's the Fansteel case.

MR. ZODY: The Fansteel case was adopted when the state became an agreement state. It was the first case when the State had issued an amendment for the alternate feed program. So it confirmed it at state level, the prior --

MR. RANDALL: Well, I'm referring to the cases involving the State's position previously about CHAN disposal that the NRC also ruled upon and determined that that was an invalid argument.

So we can -- we can get into some of the legal issues. But I think you can go ahead and

answer the question as best you can as you understand it.

MR. JOHNSON: So the definitions that are used for alternate feeds comes from the Federal Registers that the NRC published in 1992 and 1995. And those Federal Registers, they talk about how alternate feeds are applicable to the Atomic Energy Act, and UMTRCA, and also to EPA regulations.

MS. FIELDS: I don't think the NRC has the authority to make determinations regarding EPA regulations and those FRNs were not rule makings. I'm making a comment here.

Okay. I'll just move on with Question 6.2, and, as you know, that the EP -- it's the EPA standards in 40 CFR, Part 192, Subpart C that reg -- are the standards for uranium byproduct materials under the Atomic Energy Act.

And I wanted to know if the Division has made a determination regarding EPA -- whether EPA standards apply to the waste from the processing of the materials than -- other than natural ore? I mean, have you made a determination or do you have any evidence EPA has made a determination that their standards apply to the waste from alternate feed?

MR. JOHNSON: So we would consider the waste

from alternate feed as it goes out to the tailing cells as 11e.(2) material. Therefore, the standards that the EPA developed for uranium mills cleanups would apply.

MS. FIELDS: But has the EPA ever made that determination? Do you know that the EPA has made that determination?

MR. JOHNSON: Not that I'm aware of.

MS. FIELDS: Okay. Okay. And to process the Sequoyah Fuels, you're using an NRC guidance which provides a new definition of ore. And I wanted to know if that definition of ore is found in the Atomic Energy Act or in anywhere in any -- in NRC regulation.

MR. RANDALL: Well, I'm going to object because it calls -- this is not a fact question. It's a legal question.

But he can explain his understanding of the law.

MR. JOHNSON: So I have not found the definition of ore in the Atomic Energy Act, as you stated.

MS. FIELDS: So you have not found that the -- any indication the Atomic Energy Act that the term "ore" means other than anything than the common

meaning of the term ore?

MR. JOHNSON: There was no definition of ore at all in the Atomic Energy Act.

MS. FIELDS: Is there a definition of water in the Atomic Energy Act?

MR. JOHNSON: No.

MS. FIELDS: Why do you think there is no definition of ore in the Atomic Energy Act?

MR. ZODY: Object. Calls for a legal conclusion and speculation.

MR. RANDALL: Well, I'm going to have the same objection.

Let's move on.

MS. FIELDS: Okay. I am going to skip the next question since, you know, you're -- I will go to Section 6.5.

What is the route that the Sequoyah Fuels waste will take between I-40 in Arizona and State Highway 262 in Utah? It wasn't included in the SER. Also, there was no mention of the fact that the route that they would have to go along between I-70 and State Highway 262 would go through the Navajo Nation and the Ute Mountain Ute Nation. I wondered why there was no mention of that.

MR. ROBERTS: The Sequoyah materials will be

transported along I-40, Highway 491, 262, and then 191 to the mill. The materials will be transported on state and federal highways in accordance with the Department of Transportation requirements. The same precautions will be followed over the entire route.

MS. FIELDS: Are you making any -- what accommodations will be made for the fact that the haul route between Gallup and the mill will pass through tribal lands? Will the Navajo and Ute Mountain tribal governments be notified of the transport of those materials through tribal lands?

MR. ROBERTS: Again, the materials will be transported on state and federal highways in accordance with all applicable Department of Transportation requirements.

MS. FIELDS: How many other ore trucks or other trucks, like trucks shipping chemicals to the mill associated with the operation of the White Mesa Mill travel on that haul route between Gallup and White Mesa? I mean, are there any other trucks associated with the mill operation besides this ore Oklahoma waste that go on that route?

MR. FRYDENLUND: Sarah, the transportation considerations are dealt with the details in Section 4.2 of the license amendment application.

And that goes through -- you know, it talks about the number of trucks associated with the mill at full operations being about 68 ore trucks a day for full operations.

What we're talking about here with the Sequoyah material is approximately 5 trucks a day for a short time period, 22 to 33 weeks. It's a very small percentage of full mill capacity. So the total amount of trucks associated with full capacity on those routes is going to be insignificant compared to normal trucking. And there will be an insignificant number of other trucks associated with mill operations over and above the Sequoyah trucks on those routes.

MS. FIELDS: I was wondering about the number of trucks because in the SER, it states from 555 to 835 trucks over 22 to 33 weeks. And that's a big gap, a gap of 300 different -- 300 truckloads. And I'm wondering why the estimate was so broad.

MR. FRYDENLUND: Well, what we found in our experience with alternate feed materials is that there has been some variability in the ability to estimate the quantities. So we typically assume about 50 percent more than maybe the initial amount. And that's why you're seeing a range of about

50 percent of 500 to about 800.

But all of our analysis of impacts to the mill assume a larger number. So we conservatively assume the larger number for impacts on the mill and any environmental impacts and -- which is a broader range because it's impossible to quantify with precision the exact numbers.

MS. FIELDS: Okay. Thank you.

The next thing goes for the Sequoyah Fuels SER Table 11, page 28. And I've noticed that in the table, the data and information referred to Cell 3 rather than Cell 4A. In looking the table, one would assume that any of the waste from the processing of the Sequoyah Fuels material would go into Cell 3 when it apparently will go into Cell 4A, possibly 4B. But -- and there's a mention of any future tailings impoundments.

So I wondered why the data regarding the radiological and non-radiological constituents in 4A before and after processing is not used. All -- all the data seems to deal with Cell 3, which seems to -- I don't understand why that's relevant and why data from Cell 4A isn't being used.

MR. LUELLEN: Data from Cell 3 would incorporate in the table. That was data available at

the time the SER was prepared, and that was considered a general representative of tailings and alternate feel materials disposed within the tailings impoundments which include Cells 2, 3, and 4A.

MS. FIELDS: Okay. On Table 3, Footnote 11, it refers to Column J, concentration in ores and other alternate feed material, and then also refers to Maywood, New Jersey, alternate feed material. That material was never received at the mill, and now it's going to be deleted from the license.

So, again, I wondered why the constituents of the Maywood waste are relevant to the proposed license amendment.

MR. LUELLEN: The Maywood material is included in the Safety Evaluation Report because it is included in the current radioactive materials license.

The material was approved as an alternate feed for processing at the White Mesa Mill but has not been processed at the mill. These materials were included in the SER because they show the non-radiological and radiological characteristics of the materials that have been evaluated and approved as alternate feed materials for processing at the mill.

As such, they provide an example of the non-radiological and radiological characteristics of byproduct materials that are within the envelope of approved materials that might be processed and the residues therefrom disposed in the impoundments without endangering human health or the environment.

MS. FIELDS: Was any -- was there any effort to look at the cumulative impacts of all those different materials?

MR. LUELLEN: This License Amendment Request was reviewed for the materials on a specific case basis and for its impacts on the impoundments as -- as -- as an episode.

MS. FIELDS: Yeah, but not looking at any cumulative impacts from all the other alternate feed material that has been or might be disposed of?

MR. ZODY: Object to compound question. Calls for speculation.

MS. FIELDS: Well, I just wondered if you looked at -- I guess you haven't looked at any cumulative impacts from all -- all the alternate feed material.

MR. LUELLEN: The analysis looked at the quantities and concentrations of this alternate feed material in relation to the volumes and tonnages and

concentrations of existing tailings and alternate feed materials.

In that context, they were incorporated into what kind of impact they would have on the concentration overall within the impoundments.

MS. FIELDS: I wonder which waste materials or non-ore materials that have been processed are being used by the Division for comparison in Column J. And unfortunately, I don't have it right up in front of me. It doesn't -- it mentions some of the non-ore materials, but it doesn't list all of them.

And previously today, the Division indicated that they don't keep track of all the shipments of the non-ore materials that have come to the mill for processing. So it's hard to know exactly what you're talking about when it comes to the amounts of materials and their radiological constituents that have gone into Cell 3 or would go into Cell 4A.

MR. ZODY: That, to me, seems in the nature of a comment as opposed to a question.

MR. RANDALL: Well, and I object because I think it misstates the testimony.

The testimony was that the Division doesn't receive actual shipments of waste, but I think the

quantities of materials that are shipment process are known. So I think that misstates the testimony.

But -- but if you can comment on -- the question relates to Column J in the SER. Can we get back to that question, maybe answer it.

MS. FIELDS: I guess the question was, does the data in Column J refer to the concentration of radiological and non-radiological constituents of other ways that have not or will not be received at the mill?

MR. LUELLEN: The data in Column J refer to the total concentrations, and that is in terms of ranges of previous alternate feed materials that have been approved or -- and/or processed at the mill. So they're representing general ranges of those concentrations.

For comparative purposes, the SER can be clarified. The footnote can be clarified to indicate which of those considered in Column J that were approved and which were not processed and those which were approved and processed for clarity. That can be done.

MS. FIELDS: Were you also looking at concentrations of ways that were disposed of in Cells 2 -- 2 and 4A? I think most of the data refers

to Cell 3. So are -- or were you looking at everything that had ever been disposed of in the tailings impoundments that was considered alternate feed?

MR. LUELLEN: It was the general consideration of everything that was either processed and disposed or approved. It was all comprehensive.

MS. FIELDS: So you were looking at cement and asphalt and boards and things like that?

MR. LUELLEN: Well, the bound --

MS. FIELDS: -- is alternate feed material for processing.

MR. LUELLEN: The bounding alternate feeds would be those, Sarah. I think some of them are referred to in the footnotes already that were approved but not processed. In order to get the range, upper and lower concentrations that were previously considered.

MS. FIELDS: Okay. Thank you.

6.7: Does Division have data on the total amount of each radiological and non-radiological constituent that has been disposed of from the processing of waste or what you call alternate feed material at the mill?

MR. GOBLE: So the mill doesn't process

waste. They process alternate feed material.

MS. FIELDS: But they are waste. They're waste from the processing of -- of other -- other materials. They are -- there are wastes. They're defined as waste. They -- they don't become ore until after they've been processed. So I call them waste. It's a matter of semantics, I guess.

MR. GOBLE: So do you want me to answer your question?

MS. FIELDS: I want to know if you have data on the total amount of each radiological and non-radiological constituent that has been disposed of in the processing of alternate feed material at the mill.

MR. GOBLE: The answer is no, nor is the -- nor is the licensee required to provide that information.

What we do have is on an annual basis, the tailings solution is actually sampled for 38 constituents. That information is submitted to an annual wastewater sampling report.

MS. FIELDS: Do you include radium in that sample on an annual basis?

MR. GOBLE: No. What's actually sampled is the same thing which is the same constituents which

are required to be sampled in the -- one of the compliance wells. It's the same 38 constituents. Radium is not one of them.

MS. FIELDS: Okay. The SER draws conclusions regarding the acceptability of the Sequoyah waste for processing or the Sequoyah alternate feed, but it is for processing based on the assumption that this 11e.(2) byproduct material contains similar or greater -- or that waste, other materials containing similar or greater levels of radiological or non-radiological constituents have been placed -- already been placed in the tailings.

And I believe you've already asked -- answered this question of whether Division has looked at the cumulative impacts of the disposal of these constituents from alternate feed material in the impoundments.

MR. GOBLE: Yeah, Jon answered that question.

MS. FIELDS: Okay. What information does the Division have regarding the environmental impacts of the processing and disposal of alternate feed that have been accepted at the mill?

MR. GOBLE: So as Jon said, we don't have the cumulative radiological and non-radiological

constituents of what's been received. As -- what we do, actually, for an environmental analysis for the site is we review the wastewater reports that come in.

You also want to know -- well, did you ask your second question, Please refer to dates. You haven't asked that yet.

So we basically, like I said, the -- let me start over. I apologize.

The regulatory standards even though -- there is regulatory standards and those are required to emit -- sorry, to meet. As long as the standards are met, the public should be -- the public -- the effects to the public should be minimum.

And there actually is an environmental review each time the Division reviews an environmental report.

MS. FIELDS: There's an environmental review for each of the alternate feed?

MR. GOBLE: Not for each alternate feed. When the wastewater sampling report comes in, it's reviewed, and the Division does, then, a review of that.

MS. FIELDS: Okay. So you -- thank you.

MR. GOBLE: Yeah. Sorry if I was a little

blurry. I apologize, Sarah.

MS. FIELDS: It's getting late. Okay.

MR. GOBLE: It's getting late.

MS. FIELDS: Does the Division -- this is 6.8: Does the Division have data on the total amount of materials disposed of and the total amount of constituents from these other sources? These are the other sources of alternate feed material. I mean, do you have an overall picture of the total amounts of materials disposed of and the total amount of constituents from these sources?

MR. GOBLE: We have the total amount of volume that's been disposed of at the tailings cells. I don't have a constituent by constituent, no.

MS. FIELDS: Okay. I'll go on to 6.9.

In the SER, it talked about the alternative and for -- for dealing with the ore material.

And I wondered why the SER did not consider the alternative of direct disposal of the 11e.(2) byproduct material at the Clive Disposal Facility, which has an 11e.(2) byproduct material disposal cell, or why the SER did not consider the alternate of direct disposal, which is allowed at the White Mesa Mill because the material is 11e.(2) byproduct material just as ISL waste is 11e.(2) byproduct

material.

MR. GOBLE: So there is no requirement for the Division to consider alternatives of direct disposal for the material. That decision you -- that decision actually lies with Sequoyah Fuels and what they want to do with their material.

What was presented to us was a request to receive it for alternate feed from Energy Fuels. That's a question for Sequoyah Fuels.

MS. FIELDS: Okay. Thank you.

And I wondered why the radiological constituents -- this is 6.10 -- of the waste -- of waste that has not and will not be received at the White Mesa Mill relevant to the proposed license amendment.

I mean, alternate feed, over time, there were a number of license amendments to receive and process alternate feed, but much of that feed never arrived at the mill. Such as Maywood, they're dumping waste material.

So I wonder why it's really relevant to this license amendment, why these waste materials that have never been processed and never will be processed are relevant today.

MR. MERRELL: The alternate feed material

from W.R. Grace and from Maywood were included in the SER because they are included in the current license. And as Jon mentioned earlier, those materials, even though they were never received or processed, serve the purpose of showing a radiological profile of materials that would be acceptable were they to be processed. So they were included for those two reasons.

MS. FIELDS: But is -- is there a cutoff point? Is -- has the State ever made a determination that there's some radiological profile that wouldn't be acceptable for alternate feed? Is there any cutoff point? Is there any standard? Is there any limit? Is there any ...

MR. MERRELL: Some of this we -- we talked about earlier. We do not have regulatory limits for specific radionuclide concentrations, but we do have a requirement for protecting human health and the environment.

So in an indirect way, that requirement places limits on the maximum radionuclide concentrations that are acceptable. But to make that connection between a radionuclide concentration and whether it's protective of human health in the environment requires an analysis. And that analysis

was done by the applicant, reviewed by the Division, and was found to satisfy all of the applicable regulatory requirements.

MS. FIELDS: I get into a lot of very deep, detailed questions about the radiological analysis which will probably take a lot of time. I think one of the important things is, I wonder whether the Division will require a limit on the time that the Sequoyah Fuels waste can be stored prior to processing. I think there are concerns about the possible breakdown of the sacks, about keeping it in safe storage.

MR. GOBLE: So this is your question in 6.10.7?

MS. FIELDS: Yes.

MR. GOBLE: Okay. So there isn't, apparently, a requirement that limits the storage time of the alternate feed material. However, the licensee would be required to follow what's specified in License Condition 10.8 such as if the Super Sacks are damaged or if they're leaking, then they'll be required, to, you know, put water on that, like I said, causing a water spray to help prevent migration.

But there's no limit for storage time.

MS. FIELDS: I think my questions, and I'll submit them as comments, in my comments, and then you can give me your responses to comments -- responses to my questions that way.

MR. GOBLE: All right.

MS. FIELDS: I think that would be a little more productive.

But just the final question: The SER describes a number of protective actions that the licensee will take during the handling and processing of the waste, and I wondered how the Division will assure that such procedures are followed.

Will there be specific inspections? Will there be special training for the workers?

MR. JOHNSON: I do inspections for alternate feeds.

MS. FIELDS: Do you know if there's going to be specific training for the workers?

MR. GOBLE: Energy Fuel's?

MR. ROBERTS: Yeah. The Sequoyah material would be processed under our Radiation Work Permit system, and that utilizes an SOP that is specifically for alternate feed materials that have a higher than typical level of thorium.

MS. FIELDS: Okay. So you're going to in

part rely on that SOP for high thorium content material --

MR. ROBERTS: Yes, ma'am.

MS. FIELDS: -- that was developed?

Okay. Thank you. Thank you for your patience.

MR. GOBLE: All right. Thank you, Sarah.

MR. ANDERSON: Well, that concludes the question-and-answer period for the hearing today. We do have additional time. As I mentioned, we had scheduled this for four hours from 1 to 5. The panel has indicated that they're willing to accept comments from the audience since we do have additional time. We finished a little early.

So if anyone from the audience would like to comment, you're invited to come up to the table. Please state your name. The time will be -- oh, good. We have a list of people who want to submit comments.

So we'll start with --

MR. RANDALL: Can I just make a motion for the Division? I think we're interested in opening this up for comments.

We have -- we have a public comment hearing scheduled for next week, next Thursday, down in

Blanding. So given -- even though there is some time available, it's still limited. And so I think we want to preferentially provide an opportunity for people who are not going to be able to attend the hearing in Blanding. And then if we could put some reasonable time -- can we show by hand how many people want to provide comments today? Three, four? Four or five? So maybe up to five?

MR. GOBLE: Let's start with five minutes.

MR. RANDALL: Five minutes each?

MR. ZODY: A point of clarification. This is just for public comment.

MR. GOBLE: Right.

MR. ZODY: The question-and-answer session is over.

MR. GOBLE: Is over.

MR. ZODY: Thank you.

MR. RANDALL: Correct, yeah. Yeah, members of the panel will be excused. There's no response to the public comments. The record is open for public comments.

MR. ANDERSON: So based on the -- the sheet that we have made available regarding individuals who wish to make a comment, first individual that I have on this particular record that's been made available

is Ivan Weber.

Is Mr. Weber here?

Let's see. Okay. We'll just -- those who raised their hands, we'll just call you up.

And sir, would you please state your name for the reporter and the record.

* * * * *

MR. DUTCHIE: Yes, sir. My name is Ephraim Dutchie. I'm a White Mesa resident.

And my question is, you know, you guys are talking about -- there was something that happened at the mill. How much time, and what is the safety perimeter, you know, to be in a safe zone, so to speak? What is a safe zone to be when there is a -- when you guys are -- when there's something going on at the mill? Like a alarm, something happens, you know, what's the safe perimeter around the whole area? Can you guys answer that for me?

MR. ANDERSON: Anyone want to take that one on?

MR. RANDALL: Well, I think this -- I think this portion of the hearing is just for public comment. So you make your comment. We'll take that under advisement, and we'll issue a formal written response to your question.

MR. DUTCHIE: So you can't, you know, answer it off the top of your head? You guys can't just answer one little --

MR. GOBLE: It would be basically a case-by-case basis depending on what the incident was. So it's hard for me to speculate what would be safe zone for anything that happens at the mill.

What we can do is, like Bret Randall said, is this: You know, we will submit a formal response to your comment, and we'll take it into consideration maybe with some different scenarios on what we'll need to do for different scenarios. That, I think, would be better for actually addressing your concern rather than to speculate. Because it depends on what the issue is.

MS. GALLOWAY: It does.

MR. DUTCHIE: Well, I mean, with any -- with any serious situation, you know, I mean, you're working with some toxic stuff here, you know. I mean, what -- that's what I mean. That's -- the perimeter, the safety perimeter around the whole area, you know.

Is it within White Mesa range or is it out of White Mesa range is what I'm asking?

MR. GOBLE: Yeah, I -- honestly, I can't

speculate on what would be -- because I don't know what different incidents could possibly be.

Right now, there is quite the buffer property between where the mill building is at versus where the property boundaries begins.

For the potential place where you would have the tailings cell leak or if there was an emission, you know, let's say from some of the processes for the mill, I can't speculate. It would have to depend on the concentrations, the extent, the duration.

Perhaps Gwyn can add more to that.

MS. GALLOWAY: There's so many variables involved. You know, the weather could be taken into account, the material that's involved.

MR. DUTCHIE: Yes, very -- exactly weather.

MS. GALLOWAY: Well, the weather, the materials, the -- the concentration of the materials, the incident itself. You know, there are some things you can pretty much stand right next to it. There's some things you have to be a little further away from.

It -- it's so specific to the incident that we would be best to pose some potential scenarios that could happen, perhaps, and -- and then address your issues based on those than try and speculate

just a general statement saying X amount. Because for some situations, you know, X would be okay. In some situations it wouldn't.

MR. DUTCHIE: Well, I don't know what, you know, the mill's working with. You know, they're working with all kinds of different, all the -- uranium level different kind of sorts that they're bringing into the mill. You know, I don't know all of them on top of my head.

But, you know, you -- you said weather. You know, 75 percent of the time, the wind comes from the north south -- south. And when all that stuff -- when you guys are moving the piles out there outside of the mill, sometimes it's wind blowing. Sometimes that wind carries that down to White Mesa.

MS. GALLOWAY: But it would probably be best for us to develop a scenario to account for those types of things and answer your -- and address your question more -- more completely --

MR. DUTCHIE: Yeah, that's where we're basically going is like a scenario. I mean, like the safe zone, you know, like bring back to my question, you know.

MS. GALLOWAY: Yes, sir. And what Phil --

MR. DUTCHIE: How far would that reach? The

whole -- basically the whole perimeter throughout -- from -- from the mill outward, you know, how many miles is that? How many miles is a safe zone?

MS. GALLOWAY: What Phil was trying to say was what we can do is propose some scenarios, and for each of those scenarios, then state what an appropriate amount would be for -- to address your question more completely. Because if we try and address it here, we're not going to be able to address it very well. But we can address it in writing at a later date and address better scenarios --

MR. DUTCHIE: Please tell me --

MR. ANDERSON: Sir, your time has run, and it's an open-ended question. And I think that the proposal to respond and develop some scenarios will probably be the best way to address your comment.

MR. DUTCHIE: All right. All right.

MR. ANDERSON: Thank you.

MR. DUTCHIE: Yep, thank you guys. You know, you guys all have a good evening. May the Creator bless each and every one of you. And sure hope you guys know, you know, White Mesa we do care about our land and we do care about people, you know.

And can you guys please, you know, listen to

what, you know, I'm trying to say. You know, I'm here as a White Mesa resident, you know. Obviously you guys maybe never really seen a Ute Mountain Ute or Ute from White Mesa speak on a community's behalf.

MR. ANDERSON: Well, thank you. We appreciate your time.

MR. DUTCHIE: Thank you guys for opening your doors here and letting me speak and listen to what you guys got going on here. Thank you.

MR. ANDERSON: Thank you.

Anyone else?

Yes, ma am.

And remember, this is for public comments and not questions. So if you have a comment you'd like to make before --

* * * * *

MS. TSO: I have several comments. My name is Sharee Tso. I'm originally from Arizona, a small community. Probably a lot bigger than White Mesa, but it's Greasewood Springs, Arizona.

My first comment is for Harold Roberts and Jon Luellen [Mike Zody] and Phil Goble, Tom Rushing, Russ Topham, and Gwyn Galloway. I'm really, really disappointed in you guys. Bret Reynolds -- Randalls -- Randall.

As I sat here listening to how heartless, insensitive, and basically evil and criminal how your -- how you responded to an event of a catastrophe at the mill, how you would handle an emergency. Oh, well, call Blanding first. White Mesa community is 5 miles away, less than 10 miles. And you had the gall to say, well, we'll have to coordinate with the BIA and we'll have to coordinate that, and we'll have to think about how we're going to address an emergency.

And this is what my brother was trying to say. What is the safe zone? How are you going to handle an emergency?

My comment is if this was -- if this mill was here in Salt Lake, man, you guys would be on it. You guys would be on the TV, on the radio, you'd have sirens going on, you'd have police knocking at doors and everything.

But in the small community of White Mesa, you guys wouldn't even give a care. That's how heartless and criminal your corporation to get this license for a uranium mill to process uranium. I'm not stupid. And, you know, what you're doing and what you're saying up there is criminal.

You guys are just doing it for the money.

You're just doing it so you can go through the reservation. You want to go through several reservations to bring it -- bring this contaminated stuff for money, for money.

You can't eat money. You can put it in the bank. You can put it in the stock market, but you can't eat it. You can't drink it.

You're contaminating the waters there. You're contaminating the waters on the White Mountain -- White Mesa Reservation. You're going to contaminate the waters on the Navajo Reservation, on the Havasupai Reservation. And you're bringing it all over the country for money.

You guys are all sitting up there in suits, all nicely groomed and everything, shoes shined, you know, but who gives a care about the damn Indians? Nobody. You think we're all uneducated? I have a master's degree in education. I may not look like it. I'm not dressed in a suit or a dress or anything, but I'm smart. I can see right through you. I can see right through your heart. I can see right through your soul. I can see right through your pocketbook.

That's my comment. Thank you.

MR. ANDERSON: Thank you.

(Clapping from people in audience.)

* * * * *

MS. BADBACK: Hi. My name is Yolanda Badback.

MR. ANDERSON: Ma'am, would you sit down.

MS. BADBACK: I don't want to have a seat, sir.

MR. ANDERSON: Okay. If you could speak into the microphone, though, just so that --

MS. BADBACK: My name is Yolanda Badback.

MR. ANDERSON: Thanks.

MS. BADBACK: I'm a resident of the White Mesa Ute Reservation there just 4 1/2 miles south of the mill there.

I don't understand why the three individuals up there are sitting on the board while they're employed with the mill. You guys tell me that. Why? Why are they sitting up there? If this is a hearing to renew the license, them three shouldn't be sitting up there.

MR. ANDERSON: They're here to answer questions. They're the --

MS. BADBACK: But, you know, as answering questions, there's eventually a lot of chairs here that they could be able to sit at, just like the rest

of us here.

MR. ANDERSON: The important thing to remember is that this is a process to consider a license. And they're the applicant for the license.

MS. BADBACK: I know, but, you know, sitting up there makes it look like, oh, they're with you individuals here that are sitting up there on the board. You know, that hurts. That hurts to see a person that comes from a reservation come here to Salt Lake to see you guys sitting up there and sitting there like bigshots and whatnot and listening to our complaints every time we complain and complain.

And you guys tell me, how many tribal members are employed at the mill as of today that you guys had promised back in the past, that the tribal reservation, Ute Mountain Ute Tribe will be the first ones to be employed at the mill. Tell me today, as of today, how many tribal members are employed at the mill?

As when I'm sitting back here looking at you guys and listening to everybody asking their questions and whatnot, all I see is you guys looking at each other like, okay, who's going to answer this question? Let me zip through my notes first, let me

read what -- what I had studied before I came here. That's the reason why you guys ask for all these questions ahead of time so you guys can study and then have the answer for the people that show up here to these hearings.

Use your head. Don't go and start looking at notes and saying, oh, this is how it is. You don't do that. If you guys have your degree in all these stuff, you use it from the top of your head. You don't go and study and look at the documents and having these people to have their questions or their answers or whatever to -- to be here within like what, two, three weeks ahead of time.

And yes, we do live off of well water too as well. And you guys did when the mill had first -- had been in process. You guys have ruined our ancestors. Buried up our ancestors.

I don't know if you guys would like it if I came here, went to your ancest -- your ancestors and buried them up, pushed them aside and put a site there. You guys might not like it.

Yeah, Blanding is probably a little bit further up ahead of the mill, but we're south of the mill. I've been fighting for this since back in 1980s when my uncle was fighting for this mill. I

took upon this thing to go forward to help my people to try to stop this.

I wish each and every one of you guys have a heart and go home and realize what you guys are doing to the tribal members.

MR. ANDERSON: Thank you.

Anyone else like to make a comment?

* * * * *

MS. BRADY: I do.

So my name's Melisa Brady, and I am a Utah native.

And it's true. I can see into your hearts and into your souls, as you can see into mine. And it's very important that each and every one of you realize that we are all connected.

And think long and hard about the power that you have and the position that you are in making decisions. All of us count. You are on the board, and you're -- you're in the positions that you're in. I'm not going to make any judgments, but I would very much like to remind you how important it is what you do with your energy. And to think about your family, your sons, your daughters, your wives, yourself as this mine is 5 miles from your house.

If I understand correctly, there's no fence

around No. 3, Cell No. 3. Okay. So animals can get to this. We're talking about your -- what are you going to eat? Are you going to eat that? These animals, there are animals who have been opened up and they're foamy inside. They're sick because they're getting this -- this waste or this -- however you describe it. You don't call it waste. You call it another technical term to hide it. It's poison.

So good solution is clean energy. We all make decisions every single day. We can all improve, me included. You can smirk. You can, you know, talk later. But realize, this is you we're talking about. Yourself. And we all will stand before the Creator. And what you do matters, and it is not too late to change and to start making good decisions and to listen to your heart.

It's not about money. It's very serious. This is a turning point and you men and you, my dear lady, have power. We all do. And we are here to ask you to do what's right.

Think about your kids. Don't separate yourself and be like, oh, it's just the desert. Nothing's there. Well, there's 250 natives left. If it wasn't for them, we wouldn't be here. We would be dead. They are the ones that made it possible for us

to survive. The pioneers, thank you, Native Americans for bestowing upon us your wisdom so that we could survive.

Think about it. Seriously.

I made some notes here. There's no limit. I don't understand that. I don't -- I don't know who all of you are, but I know that you participate in these decisions. So intelligently thinking about this, if I understand it correctly, trucks can come and deliver waste or particles and, you know, things, chemicals, and there's no limit before it can be processed? Are you saying that stuff can just be delivered and delivered and delivered and it's just sitting there? And, you know, what if you don't identify a broken sack and there is one because it's buried, but there's no limit? Okay. Can you please change that?

Make sure there's a fence so that no animals, no animals -- I mean, rodents, come on, they're tiny. And then, you know, it's a food chain. I just want you to really think about it as if it were you. Put yourself in that position. I'm almost done.

And please, dear God, put it in the -- it's not just the cops that need to know, the city that

needs to know. Have some respect and let the natives know. Make a beautiful connection.

Thank you.

MR. ANDERSON: Thank you for your comment.

Anyone else like to make a comment?

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MS. WHISKERS: Well, good afternoon. My name is Thelma Whiskers, and I'm a tribal member and I live in White Mesa. And good to see you, every one of you here to talk about White Mesa Mill.

And I was just listening to every one of you that comment about the White Mesa Mill. And I've been fighting for this for so many years, since my brother passed away. Then from there, I kind of -- I didn't want to fight against it.

So someone was just telling me, come on. Take over. Take over what your brothers was doing. So here I am. Me and my family.

And I am a mother. I'm a single mother. And my -- my husband passed away about 40-some years, 47 years ago. And I got children. I got grandchildren. I got great-great-grandkids.

So I've been living in White Mesa for so many years, and I care for my people who are in White Mesa, especially my grandkids, my children. I talk

to them for them to understand.

And years, years before that, we used to have a lot of herbs around by the Mesa Mill. Native tea and a herb for the -- for the coughs, when you got a coughing, stuffy nose, all that. I know all of that herbs. That's where I used to get all my herbs to get my grandkids or my children to get better.

And now, to these days, everything is destroyed. Everything is not there where all the herbs used to grow. Nothing. And I had to go all the way down into New Mexico or Arizona to get a herb from down there. Before the winter comes, I dry them. When my grandkids or my kids are sick or if they have a cold, I boil that herb for them.

And you people here are sitting up there. I wish you guys would understand because I care for my people, White Mesa. We're not that many anymore. My tribal members, there are just -- they're sick. The young people. They're young people, and they still got little kids from baby. The parents are sick. That's the reason why I'm really fighting against this mill, for not to have it close to our reservation.

And this water here, every one of us here, we drink this water. It is important. It's our

life. It goes through into our blood veins. Makes us happy. Make us feel good. But us people -- I mean, my people, we just got well water. And they say that water don't taste good. They don't -- my tribal people, they don't drink water from the White Mesa. They buy water. They go up town, and they get about two, three case of water. That's how it is now. And the water is alive for us natives. Now everybody are holding bottles of water. They drink it wherever they go.

I wish we would have a good, clean water and good air how it used to be. But now, huh-uh. Just because that mill is close to our reservation.

I feel bad. That's the reason why I'm standing here and I'm fighting against it. I tell my people, my tribe, the young ones, my grandkids, hey, come on. Stand up. Let's fight for this mill up here. We don't want it to be close to our reservation.

What do you people think of? Oh, shall we just leave it? Shall we let this people just run over us? Maybe there will be -- if they still -- if the mill still going, maybe we'll be only but three, four houses in the Mesa. And I don't want to see that. I want to see my grandkids grow up. I want

them to be healthy. I want them to know. That's why I talk to my kids, my grandkids, my great-great-grand -- I want to see them finish their school. Get the education.

That's where the bus goes all the way to Blanding to take our kids to go to school, for them to get their education. Maybe some of these days one of my grandkids will be sitting like this. He might go for the money. He might go, oh, I want to be rich. He might think that way.

But no. I don't want none of my grandkids to be sitting like this.

MR. ANDERSON: Thank you, ma'am.

MS. WHISKERS: Make a lot of money.

MR. ANDERSON: That concludes the time that's available. Thank you.

MS. WHISKERS: Yeah, thank you.

MR. ANDERSON: Anyone else?

Well, if no one else is up for a comment, then that will conclude the question-and-answer period as provided for in the rules.

I would remind you that the next public hearing is set on January -- or June 15th, excuse me, at 5 p.m. in Blanding. In addition, the Division will continue to receive written public comments

through July 31st, and they can be submitted to the Division at this address.

So thank you. That concludes the hearing.

(This hearing was concluded at 5:13 p.m.)

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REPORTER'S CERTIFICATE

STATE OF UTAH)
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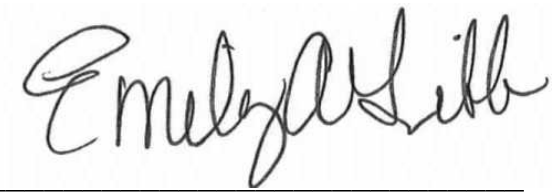
COUNTY OF UTAH)

I, EMILY A. GIBB, a Certified Shorthand Reporter and Registered Professional Reporter, hereby certify:

THAT the foregoing proceedings were taken before me at the time and place set forth in the caption hereof; that the proceedings were taken down by me in shorthand and thereafter my notes were transcribed through computer-aided transcription; and the foregoing transcript constitutes a full, true, and accurate record of such testimony adduced and oral proceedings had, and of the whole thereof.

I have subscribed my name on this 30th day of June, 2017.



Emily A. Gibb, RPR, CSR, CCR

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