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NUCLEAR REGULATORY COMMISSION

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GE-HITACHI REQUEST FOR APPROVAL FOR PARTIAL SITE RELEASE OF THE VALLECITOS NUCLEAR CENTER

PUBLIC MEETING

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WEDNESDAY, JULY 22, 2015

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The meeting was convened at the Holiday Inn Dublin, 6680 Regional Street, Dublin, California, at 6:30 p.m., Bruce A. Watson, Moderator, presiding.

PRESENT:

BRUCE A. WATSON, CHP, Branch Chief, Reactor Decommissioning, Division of Decommissioning; Uranium Recovery and Waste Programs, Office of Nuclear Materials Safety & Safeguards

JACK PARROTT, Senior Project Manager, Office of Nuclear Material Safety & Safeguards, Reactor Decommissioning Branch

ROBERT EVANS, PhD, PE, CHP, Senior Health Physicist, Division of Nuclear Materials Safety

TOM CAINE, Site Manager, Vallecitos Nuclear Center, G.E. Hitachi Nuclear Energy

P-R-O-C-E-E-D-I-N-G-S

(6:30 p.m.)

MR. WATSON: Welcome everybody and thank you for coming out tonight. I know everyone has a busy schedule and appreciate your interest in this particular topic.

My name is Bruce Watson. I'm Chief of the Reactor Decommissioning Branch from NRC headquarters in Rockville, Maryland, and I manage the group that decommissions reactors. And so this most fits in with our program for the partial site release.

Tonight this is an NRC-sponsored Category 3 meeting. We're here to hear your comments, the public's comments, and issues and concerns about this particular subject matter, which is the partial site release of the land on the north side of the GE-Hitachi site.

We're holding this meeting because it's required by federal regulations. Plain and simple, we're required by the law to do that.

Besides providing comments tonight, you can provide written comments if you go to our Web site. And Jack will have more information on that. Those comments can be received up until October 5th, when that public notice is terminated.

We have a sign-in sheet in the back. I hope everyone signs in. It gives us the opportunity to contact you, if you have questions that we can't answer. We will do our best to answer your questions. If we can't, we'll do our best to get back to you if you'll provide us some information to contact you.

Let's see, there's also critique sheets in the back if you're willing to provide us some feedback on the meetings. It's important to us to figure out how we can improve these meetings.

There will be a meeting summary, which Jack Parrott, who's the Project Manager, will be producing. We will also be looking at all the public comments we received and evaluating those. And those will also be posted on our Web site after we receive all the comments.

Emergency exits are here. Obviously, you came in. They're all over. There's restrooms across the hall. We do have a court reporter recorder. So Julie is recording this meeting. These mics do not amplify, but they do record.

So we'll ask you, if you do have a comment, to please give us your name and where you're from or your affiliation or whatever it is. And so we can get that clear on the record and transcribed

properly. The transcription will be made available on our public Web site once we receive it from Julie in the written form.

Let me introduce some of the NRC people that are here. This is Jack Parrott. He is the Project Manager for the three sites that are in decommissioning status.

This is Dr. Robert Evans. He's the inspector for the site. And Duane Hardesty's here. He's a Project Manager in our Nuclear Reactor Regulations Office.

GE has volunteered to provide a brief presentation tonight. This is an NRC meeting. I say they volunteered, so we appreciate that. And tonight is -- here is Tom Caine, who will be speaking. And I believe Christopher White is here from their Office of Public Affairs.

Anybody else want to be introduced that's here? Okay. Are there any elected officials here that would like to be recognized? Okay. No elected officials, all right.

Like I said, we'll do our best to answer your questions and listen to your concerns. Any issues you have. And like I said, if we don't have an answer for you, because we couldn't bring the entire

NRC staff with us, we'll be happy to get back to you.

Like I said, introductions. This is a Category 3 with (inaudible) general information. I'm going to give a brief overview of the decommissioning program.

This fits in because it's in part of the regulations for Part 50, which are right after the decommissioning and that's what we do. We do surveys and regulate the safe elimination or reduction of radioactive material from the site. That's what decommissioning is all about.

Jack will talk about, Jack Parrot will talk about the partial site release process. GE-Hitachi will talk about their request for the partial site release. Dr. Evans will talk about the inspection program.

And then we'll listen to your comments and hopefully I'll have some summaries. And we have to be out of here at 8:30, because that's how long we have the room rented.

So, let me just go and say that our current decommissioning regulations, including the Part 83 part, 50.83, which is the partial site release which we're here to talk about tonight, went into effect in about 1997. So we have about 18, 19 years

of experience with it.

During that time period, we have decommissioned over 80 complex material sites. We've done seven power reactors. Large power reactors. And actually the number is ten total we've done, because we did three before those regulations went into effect. And about a dozen research reactors.

And you can see last year, this year, we terminated the licenses on two research and test reactors. One at Worcester PolyTechnic and the other one at the University of Michigan.

So the point is here is that we have a lot of experience in the clean up, remediation and decontamination and monitoring and measuring of these sites. And so, this is how it fits in with our program.

So, as I said, the regulations have been around for 18 years. They work well. And they're tested and we've learned a lot of lessons through the years.

Here's just a picture showing where the major reactor sites are around the country. The closest one to us right now is Rancho Seco. We terminated that license, I think, in 2009.

And, of course, you have a number of other

ones that are in active decommissioning, including Humboldt Bay, and then recently the shut down of San Onofre 2 and 3, which is pretty much going into an active decommissioning standpoint.

I'll turn the meeting over to Jack Parrot, who's going to talk about the partial site release material.

MR. PARROTT: Good evening. I'm Jack Parrott. As Bruce mentioned, I'm the Project Manager for the shut down reactors at the GE-Vallecitos site.

One thing I want to point out, Bruce mentioned a public meeting feedback form. When he said that, I realized they're not on the back table. They're in that folder that's holding up the projector, so -- oh, is there some back there? Okay. Good. Then I don't have to worry about that.

Okay. So I want to talk a little bit about our process for partial site release, which is what GE has requested for their site.

This process applies to power reactors and there are two power reactors, shut down power reactors, at the Vallecitos site. One is the Vallecitos Boiling Water Reactor, which entered its shut down status in 1965, and the other one is the ESADA Vallecitos Experimental Superheat Reactor, which

entered shut down status in 1970.

To put this in context a little bit, the NCR regulations for power reactors are 10 CFR Part 50. It covers the operations and licensing of nuclear power reactors.

Within that regulation is 50.82, which is the termination of license. It's basically our decommissioning regulations. And 50.83 applies to this situation, which is the release of part of a power reactor facility or site for unrestricted use.

And that relates to 50.82 by -- 50.83 is used before a reactor, when they're in decommissioning, they need to, the regulation 50.82 specifies that they submit a license termination plan two years prior to when they want to note the license terminated.

But if they want to release part of the site before that, then they use 50.83. That's the situation we're in right now.

Okay. 50.83, to go over some of the specifics of it, it's used for unrestricted release of areas before license termination, as I mentioned. It requires prior written approval from the NRC. It's typically applied to outlying unused areas of the site that they want to remove from the license.

And there are different requirements, depending on if the part of the site they want to release is impacted or non-impacted. And non-impacted areas mean those areas with no reasonable potential for residual radioactivity in excess of natural background or fallout levels.

So this particular request, GE has designated the area they want to release as non-impacted. And one of the other differences between releasing a non-impacted versus an impacted area is releasing an impacted area would require a license amendment. Releasing a non-impacted area does not. It's just an approval from NRC.

So 50.83 requirements, these are the requirements that would remain in place if the parcel is released. There can not be any reduction in effectiveness of the emergency planning or physical security. Effluent releases must remain within license conditions. Environmental monitoring program and offsite dose calculations are revised to account for these changes. And all other applicable statutory and regulatory requirements continue to be met.

Also, the other requirements are that the licensee has to perform a historical site assessment of the part of the facility to be released. They have

to provide to NRC the results of the evaluation performed in accordance with Regulation 50.59, which is our regulation for evaluating changes for impact to the safety basis for a license.

They must also provide the reasons for concluding that the environmental impacts associated with the proposed release are bounded by previously issued environmental impact statements.

They also have to show that they're still meeting our regulations in 10 CFR Part 20, Subpart D, which is the radiation dose limits to individual members of the public. 10 CFR 50.75, they must continue to report and also keep records of this area that's been released, so that these go into the records important for decommissioning that must be kept until the license is terminated.

And also 10 CFR Part 100, which is our reactor site criteria. These are factors related to the distance to site boundaries for dose calculations and evaluation of nearby hazards. Those requirements must continue to be met.

Okay. So what NRC is required to do from these requests is to publish a notice of the receipt of the request and make the approval request available for public comments. So we published a notice in the

Federal Register. It was published on Monday. There's copies of that in the back. In that are instructions for how to file comments in writing.

Also noticed, or gives other information for providing comments online or other ways. It gives the contact information for me. The comment period goes until October 5th, so there should be ample time to prepare comments if any are sent.

Also, it requires us to conduct a public meeting, which is tonight, in the vicinity of the licensee's facility, for obtaining public comments that way.

So NRC will have to determine whether the licensee has adequately evaluated the effects of releasing the property relative to the dose, emergency planning, security, environmental and regulatory requirements that I mentioned earlier.

Determine whether the licensee's classification of any released areas as not impacted is adequately justified. And upon determining if the licensee's submittal is adequate, inform the licensee in writing that the release is approved.

So the NRC's power reactor decommissioning process will continue for the remainder of the site that isn't released. And part of that is we will

continue to conduct our onsite inspections and the licensee is required to submit a license termination plan at least two years prior to requesting license termination for the remainder of the facility that isn't released.

And just briefly, as Bruce mentioned, we have experience in terminating licenses. We've terminated ten power reactor licensees altogether, seven under the current license termination rule. There's five units now in active decom, which is an active dismantling or decommissioning of the site.

And 14 other units in safe store, which is a shut down but not completely decommissioned license termination. Mostly, these are at units that are other sites with still operating reactors. So they're waiting for the other reactors to shut down before they can decommission the sites.

And that's it for my presentation. There's my contact information for the email. And now I'll turn it over to Tom Caine from GE-Hitachi to talk about the site a little bit.

MR. CAINE: Good evening. I'm Tom Caine, Site Manager for the GE-Hitachi Vallecitos Nuclear Center. I just want to give a few slides describing the facility and a brief summary of what we have done

in preparation for this process.

Last year, we began a business feasibility evaluation of selling some of the non-impacted part of the site. That led to looking at what we needed to do, regulatory requirement wise, to be able to even do that. And part of that was this 50.83 process.

So we did some evaluations and some testing in the first part of this year and provided the submittal that Jack mentioned in April of this year. You can go to the next slide.

The facility is on Highway 84. The entrance to our facility is on Highway 84 about three quarters of a mile west of Highway 680, about ten miles south of there.

The active part of the site, the developed part where we do our work, is about 130 acres. The total site right now is 1,600 acres. So the other roughly 1,500, or a little less than 1,500, acres is untouched land except for cows that graze on it every year, which helps us reduce the fire danger and produces a tiny bit of revenue from the rancher. Next slide.

This is the land pieces that we're looking at to have released. This is being viewed from the west, an aerial view over the Callippe golf course in

Pleasanton. Down on the right side of the picture, about midway, you can see our facility.

And as you head north, which is to the left in the picture, you go up over the first range of hills and there's a series of hills and valleys to get to the northern part, the C1 parcel. And there's also hills between the site and the C2 parcel, which is a little closer to the site but still separated by some hills.

So actually, from our facility you can't see any of this property. It's all basically over the first set of hills relative to what we see from the site. C1 is approximately 580 acres. C2 is 30 acres.

And we expect, based on both interviews from current and past employees of Vallecitos, that there's been no impact. There's been no industrial activity on those properties.

And as a part of this evaluation, we had soil samples done to confirm that and I'll talk briefly about that result in a slide or two. Next slide.

This is an aerial shot where the top of the picture is north. So up in the very top left, you see that sort of green patch. That's the driving range at Callippe. And we were looking at that top

property, C1, from that direction in the previous slide.

So C1 is the northern most piece of the property away from the operating part, which is down in the red area there. You can see the buildings in the aerial shot, or satellite shot I guess it is. And then C2 is just a little bit south of that.

We've done evaluations. We do have one operating research reactor on site still, similar to a university reactor. And we've redone evaluations to show that the affected area from having that reactor operated is still within our operating site, even if you remove the C1 and C2 properties. So they're not necessary to operate the reactor.

And being as far away as they are, they're not expected to be affected. But we did do soil sample testing and had those analyzed. And about 15 samples. And they all came in at background levels for this area, indicating that it is non-impacted. Next slide.

So I probably have said half of this already, but that northern area, C1 and C2, are not impacted based both on the historical assessment as well as the environmental sampling that was done.

Based on NRC concurrence after reviewing

our April submittal, we expect that property C1 and C2 will be released without any limitations. And at that point, the potential to sell them is there.

They may or may not be sold, based on what happens in terms of the value that the market puts on that property. It may just sit there as normal old GE property, depending on what happens after it's released. But this is a necessary step and we're looking forward to the conclusion of it.

The space is currently zoned as Open Space Natural, which is, like I said, we have cattle grazing on that property now. Obviously, it can be used for open space. It can also be used for agricultural uses.

Other than that, if someone bought the property, they would be developing it to some other status, working with the country or one of the local cities. And that's it, so I'll turn it over to Dr. Evans to present his slides.

DR. EVANS: Thank you for coming. I'm Rob Evans, Senior Health Physicist, Senior Inspector, out of the NRC's Dallas/Fort Worth Office. And I conduct inspections here approximately twice a year. Next one.

The NRC, there's actually five or six

licenses, depending on if you want to count a transportation license as a license, that various NRC Inspectors come to do inspections for. And I happen to be the Inspector that handles the shutdown reactors and the special nuclear material license.

We are here onsite this week. I arrived Monday morning and one of the things that we were going to do this week was to conduct a survey of the property.

So, as part of this, it's a combination of paperwork as well as a combination of field work, where we actually go out and take measurements in the field.

And we're doing this in response to GE's April 24, 2015 letter to us, which requested the free release of the 610 acres from various licenses for unrestricted use.

Now if we grant approval for this, then GE would be free to do whatever they want with the property, free of NRC oversight.

That means if they want to sell the property, they can sell the property. If they want to reuse it for some other use, then that should be with the NRC acceptable. But it's just basically what we call released from the license.

And there are two properties, as Tom Caine just mentioned, designated as C1 and C2. Next.

As part of a release program, there's several radiological surveys that are conducted to support the release of the property. GE, as you had just heard, conducted an environmental site assessment to verify that the property was not impacted by previous operations involving radioactive materials.

And that really consisted of records review, interviews with site staff that had been there for many years, as well as radiological surveys. In this particular case, they took soil samples.

So in response, we elected to conduct a confirmatory survey. And the purpose of this particular confirmatory survey was to verify the results of their radiological assessment. Next.

The confirmatory survey was actually conducted by staff members from ORAU, sometimes known as Oakridge Associated Universities, out of Oakridge, Tennessee. They're our independent contractor. They have the experience, the people, the equipment, to do complex as well as simple surveys.

The ORAU staff developed what's called a survey plan that came to the NRC for review and comment prior to the onsite inspection. It hasn't

been -- we have our document system's called ADAMS. We have not put it in to the document system yet, but it's forthcoming. We just received it on the 15th.

And the confirmatory survey itself was conducted this week, starting on Monday morning and continuing through today. The NRC's confirmatory survey included surface scans, as well as soil sampling.

And surface scans, they measure, monitor, ambient radiation levels. And soil sampling is used to, like, use analytical methods to determine radionuclide concentrations in the soil.

Being that it was, like, a 610-acre piece of property and, let's say, two and a half days of field surveys, needless to say, the Oakridge staff could not conduct a hundred percent walk over.

So what we chose to do is sort of a combination of random as well as biosurveys. And in this particular case, the scan surveys, we tried to emphasize the drainage pathways.

So if they're -- just stepping back for a second, the potential for radioactive contamination, based on the licensee's assessment, no work was ever done in that area involving radioactive materials.

So if there's any radioactive materials in

that area, since it's upgradient of the site, it most likely came from perhaps gaseous effluent fallout or washout. It's theoretical, perhaps more than reality.

So what we wanted to do is to concentrate on the drainage pathways. So if there was, like, an effluent had radioactive material in it, worse case scenario, and it were to fall out on a particular piece of property, there is a possibility that it will congregate in, like, the low areas of the property, which would be the equivalent of, like, ditches, for example. The low points in ditches.

So those are some of the areas that the Oakridge staff concentrated on. They collected 12 soil samples. The samples will be analyzed at the Oakridge laboratory site in Oakridge, Tennessee to ensure that the property meets the non-impacted criteria.

In simple terms, what they're going to do is they're going to analyze the samples for the radionuclide concentrations and they will try to identify if there is any licensed material, as we call it, as compared to naturally occurring radioactive material in the samples. Next.

Just a couple of pictures for you, if you can see them very well. This is kind of like halfway

between the site and the property, and you're looking at the property.

So we're talking about something that's basically upgradient. There's some trees. Not an awful lot of trees, but an awful lot of grassland. No structures on the property.

And here's another picture taken from really the most accessible point. You can kind of see just to the very far right, that's the fence for the driving range for the golf course. And currently, again, this is the C1 property. The 580 acres. Next.

And this is a picture actually taken today of an Oakridge staff member conducting a radiological scan survey. The item in his right hand, which is near the ground, is the detector. The item in his left hand is kind of like an electronic meter that helps record the data electronically. And then that little white thing that's floating over him is actually a GPS unit.

So as he's doing the walking scan, the GPS, and I believe it's every two seconds, takes a measurement which takes location as well as the reading.

And ultimately, what they're going to give us is like a survey map. It's just basically a grid,

I'm sorry, a map, of the property with little bitty dots all over it and usually the dots are color coded.

If it's below a certain value, which is the equivalent to background, it may show up in green. In the unlikely event that they measure radioactivity, it may show up as an orange or a red dot. So it's just sort of a visual representation of where they were on the property and what the reading was. Next.

Two reports are forthcoming from this week's inspection. First, Oakridge, ORAU, will send us a report, the NRC, which will include scan survey maps as well as a map of the location of the 12 soil samples.

In addition, they will actually submit to us the results of the sample analysis. Eventually, either the report itself or the information presented in the report will be made publicly available.

The second document forthcoming is my inspection report, which will include a summary of the confirmatory survey. In addition, we will draw a conclusion about GE-Hitachi's site assessment. The document that they submitted to us on April 24, 2015, and the conclusions of the document.

We will issue the report in approximately six weeks, pending receipt of the soil sample results,

which take anywhere from three to four weeks.

So once I get all of the information, all of the survey results, then what I'm going to do is put it in the report. It'll go through the normal NRC Review and Concurrence, and then will be published for the public if they're interested.

And just one other thing, just to make sure you're clear on this one, is this report will not actually grant them the approval to free release the property from the license. That will have to be handled under separate NRC paperwork, which will be coming out of the headquarters office. Jack Parrott will send that out.

So this report will provide a conclusion on the two surveys, but then additional paperwork is necessary to actually allow the licensee, GE-Hitachi, to release the property. And that's it.

MR. WATSON: So we're coming to the public comment period. Time for you to give us any comments, ask any questions.

I would ask that when you come up to the mic there, we can hand it to you, that you give us your name and your affiliation or where you're from. And then make your comment and hopefully the staff will, if you have asked a question, will have an

answer for you.

So, are there any questions, comments, from the public. Okay.

(Off microphone comment)

DR. EVANS: Yeah, we're here until 8:30 so take as long as want.

MS. ERICSON: Okay.

MR. WATSON: This doesn't amplify. But it just records.

MS. ERICSON: Okay.

MR. WATSON: Okay, go ahead.

MS. ERICSON: My name is Stephanie Ericson. I live in Dublin, California, so I'm real local. And I'm also a member of Tri Valley Cares Organization.

And I had some questions from reading the environmental assessment report and I may have a few additional questions, because I wasn't completely clear on the process.

First of all, the public comment period that we have here, I'm curious as to what it is to comment on. Is it the initial submission or will it be a comment also include the results and decision? Or maybe prior to the decision or the results that go to inform your decision? I mean, is there a period

for a public comment after your confirmatory report?

MR. WATSON: Let me try and address a couple of those, okay? This is Bruce Watson.

First of all, the public comment period goes through October 5th. So we can receive comments up until then. We're required to hold this public meeting so we can hear from you.

And the purpose of this is to get any issues that you have concerns about, principally because we're an independent safety regulator, that you would have concerns about over the release of this property from a radioactivity standpoint. Because that's what we're authorized by Congress under the Atomic Energy Act to regulate.

So we have this process we've set up for evaluating non-impacted lands, which GE has stated it is. And so we're following the process by electing to do confirmatory surveys and to do our own analysis of the residual radioactivity in the soil, if there is any.

And that would have to be above the natural background. And there's plenty of data in the local area about the natural background in the soils. So that data is readily available.

So we did surveys and then we'll collect

samples and analyze those. And when we come to a conclusion, we'll publish those, like Bob said, in the, or Dr. Evans said, in an inspection report and also provide a publicly available letter if we agree that these lands can be released.

DR. EVANS: Can I say something?

MR. WATSON: Sure, go ahead.

DR. EVANS: Let me kind of rephrase this for a second. There are, like, three types of comments. One type of comment, and this is what we're really looking for, is the technical accuracy and adequacy of the information.

In other words, are we missing anything? Is there anything that the local people can provide that we're completely unaware of? Like, maybe it doesn't really drain toward the side. It drains a different direction. The watershed is different. So in other words, is there something we're missing from the information that we have available?

The second type of comment is do you agree or disagree with the proposal. It's like, no, they can't do this. Yes, I think it's okay for them to do that. You can present that type of comment, but that doesn't necessarily mean we have the authority or we may respond to it.

The third type of comment really has nothing to do with what we're talking about. It's just some people just like to complain about something. GE is a bad neighbor. They make too much noise, or those types of things. We can't -- we'll take the comments, but it's --

MS. ERICSON: Right. I was just thinking that this was a multi-process thing and it was unclear to me whether there was a multi-process --

MR. WATSON: Okay.

MS. ERICSON: -- comment period. But it seems like it's all in one.

MR. WATSON: Well, we have the public comments here and then we have the ability for people to provide written comments who weren't able to come tonight or choose to provide written comments.

You mentioned something about the environmental report. There's an NRC document called the, we call it the GEIS. Generic Environmental Impact Statement for decommissioning. And it sets up a lot of parameters in which all these decommissioning sites have to abide by.

If there's something outside of those that are not analyzed, then they have to provide those to us, okay? So it's --

MS. ERICSON: Okay. I'm was referring to the evaluation results from the release of the north section of the (inaudible).

MR. WATSON: Yeah. I'm just saying, but in the, there's some middle. They have to confirm to us that they're still within the Environmental Impact Statement, okay? So I looked at your question from a different angle.

So the environmental issue you're talking about is are the surveys and what we're doing technically accurate to verify that the land is truly non-impacted. Is that what you're asking?

MS. ERICSON: Well, I didn't get to those questions.

MR. WATSON: Oh, okay.

MS. ERICSON: I was just staring to --

MR. WATSON: Okay.

MS. ERICSON: -- refer to that and I have some questions --

MR. WATSON: Okay.

MS. ERICSON: -- regarding that. But coming here, I realize it will be this confirmatory report and (inaudible) possible (inaudible) of that, but I don't want to --

MR. WATSON: Okay.

MS. ERICSON: -- take up too much time on that.

MR. WATSON: No, that's okay. We're here to answer questions, so.

MS. ERICSON: Okay. So, I know but -- do I need to stand up? Okay. It was mentioned that there were 15 samples, but from looking at this report there were only 11 sample locations and there was some further sampling of one or two.

MR. WATSON: Let me just clarify. GE took 15 samples.

MS. ERICSON: (Inaudible).

MR. WATSON: Yeah. And we took 11 or 12.

MS. ERICSON: Well, just going by the report that I read today, it seemed like there was 11. Nine on C1 and two on C -- so these were sites. But then there was some additional sampling of the same, of two of the --

DR. EVANS: I think you're correct (inaudible).

MS. ERICSON: Okay. So I just wanted to clarify. And so I was wondering if you felt that 11 soil samples, some of which were actually not quite on the site, were sufficient? And that was just an open question. I'm not saying it isn't or it is, but I

wonder about that. And then (inaudible).

MR. WATSON: Let me just say that the sampling is consistent with our normal protocols we follow for this type of verification.

MS. ERICSON: Okay.

MR. WATSON: Okay.

MS. ERICSON: Hard for me to evaluate that, but all right. What I wanted to find out also, there was a reference to another report by Brown and Caldwell in there. I think it's the first reference in that report and which may have this information, but I could not access it.

So what I'm wondering, was the soil samples, if you could comment on the sampling methodology. Whether they were stratified, how deep they were, or were they soils taken and mixed?

MR. WATSON: You're talking about the ones we took? The NRC took with our contractor?

MS. ERICSON: I was talking about the ones that GE took.

MR. WATSON: Okay.

MS. ERICSON: And I have no knowledge of -- can I? Because there's no report here.

MR. WATSON: Sure. I'll give the mic to Dr. Evans.

DR. EVANS: Let me try to clarify just for a second. Big picture wise, there's, like, four categories of, like, amount of contamination and different types of surveys. From the highly contaminated down to mostly likely nothing.

MS. ERICSON: Mm-hmm.

DR. EVANS: This falls in what's called non-impacted.

MS. ERICSON: Yeah.

DR. EVANS: And non-impacted doesn't have a minimum set of samples that have to be taken in that area.

MS. ERICSON: Okay.

DR. EVANS: It's more like judgmental.

MS. ERICSON: Mm-hmm.

DR. EVANS: Just whatever they think is appropriate for the area and the size of the area. So I think what your comment is, is along the lines, is 11 samples enough for, like, 610 acres?

MS. ERICSON: Mm-hmm.

DR. EVANS: Well, there's no criteria that says you, a minimum number of samples for a non-impacted area. But it's up to them to make the case to us that they collected a sufficient number of samples and it's up to us to confirm that. So that's

our responsibility.

MS. ERICSON: Okay. So --

DR. EVANS: The second comment, just real quick, is the report you were referring to is, they consider that proprietary information.

MS. ERICSON: The Brown and Caldwell report?

DR. EVANS: Right. In fact, during this week they gave me a copy of the report to look at and they made it very clear, I can't take it with me.

MS. ERICSON: Okay. But it presumably does contain a description of the methodology for the soil testing? (Inaudible).

DR. EVANS: I believe the Brown and Caldwell report concentrates on the assessment, not the field sampling. It's kind of like --

MS. ERICSON: Okay.

DR. EVANS: -- what was this property used for in the past. And if, Tom, anything you want to throw in? Just --

REPORTER: Can you point the microphone in his direction (inaudible)?

MR. CAINE: I'll get up closer. As far as the methodology, I believe it's a relatively standard methodology that Brown and Caldwell uses. That part

of the report we would be willing to summarize in a follow up, you know, if there were a need to respond to a written request or take an action from this meeting to briefly describe the methodology and how that fits.

MS. ERICSON: Yeah, totally.

MR. CAINE: We could do that.

MS. ERICSON: Thank you, thank you.

MR. WATSON: Okay?

MS. ERICSON: Okay. Well, if there's other people, I do have other questions but I don't want to --

MR. WATSON: Does anybody else have any questions? I mean, we want to make sure everyone has the --

MS. ERICSON: Right.

MR. WATSON: -- opportunity to talk, that's all.

MS. ERICSON: Okay. So on that same report that I looked at, Page 14, there was reference to a MARSSIM-type review and I just wondered what difference there was with a MARSSIM review over Nuclear (inaudible)or was it --

MR. WATSON: In our decommissioning world, NRC has a guidance document called NUREG 17, no,

15.75.

MS. ERICSON: Mm-hmm.

MR. WATSON: And that's MARSSIM, which stands for Multi-Agency Site Survey Investigation Manual. And it's one of the few documents that most of or all the federal agencies actually agreed to on a standard methodology for doing these surveys

MS. ERICSON: All right.

MR. WATSON: Okay. And Department of Energy, the Defense Department, the NRC, the EPA, and I think some others, but, anyway, it's a consensus document to all the federal agencies on how to determine the residual radioactivity from decommissioning, okay? So it's got some standard protocols in it.

MS. ERICSON: Right. No, I understand, got that.

MR. WATSON: Okay. But those are really for areas that have been impacted by operations. So you know that it has some residual radioactivity that has to be remediated.

For a non-impacted area, there's not supposed to be any of that residual radioactivity into it. So you don't really, can't apply, we don't apply the MARSSIM technique to, in the absolute protocols

that are there.

MS. ERICSON: Okay.

MR. WATSON: So what we do, is we do similar type survey where you do some random sampling or some bio-sampling and that gives you -- what you do is you want to try and sample the most likely areas where you might have some residual activity.

That's why we say we focused on some of the lower areas where drainage was and water would have collected and erosion would have left the material behind, okay?

So that's what we mean. It's kind of similar. In a MARSSIM process, you do basically some random sampling and then you will do some bio-sampling.

In other words, even though I have samples over here, over there, over there, I think I better check here. Because, in my experience, this is a likely place that would have some activity.

The second part of that is which we did, which was we did walkover gamma surveys, looking for material and where if we did find any spots, which I don't think we did, then we would have sampled in that particular area.

MS. ERICSON: Mm-hmm.

MR. WATSON: Okay? So that's another part of the MARSSIM-like survey. So that's what that's meant, okay? And NUREG 15.75 is available on our Web site, if you want to look at it. It's a fairly --

MS. ERICSON: I just was wondering, you know, where or how it might have deviated. So I just --

MR. WATSON: Yeah.

MS. ERICSON: -- you know, I wanted to know. And I also wanted to know if the, what relationship of the concentration of radionuclides found are, to RSL's, that the EPA, but if that's, if there's any relationship to the results to RSL's, which are the screening levels?

MR. WATSON: Oh --

MS. ERICSON: What do they call it? Regional screening levels, I think they're called.

MR. WATSON: I'll be honest with you. I don't know exactly what those are, but we do have a Memorandum of Agreement with the EPA and they have certain levels, if found in a decommissioning project, that we would have to report to them or give them a letter of notification on.

In this case, we are looking at levels that are at background and so none of those levels

would --

MS. ERICSON: Okay.

MS. ERICSON: -- come anywhere close to those types of numbers.

MS. ERICSON: Okay.

MR. WATSON: So.

MS. ERICSON: And I guess, finally, I would be wanting to know, I know that it's not clear at this moment whether the property would be immediately sold or sold later, but I'm wondering what the ultimate disposition of it. Would it be continued to be grazing for an indefinite period of time of cattle or?

MR. WATSON: Well, all I can do is answer for what the NRC would say about it. And normally there is an independent safety regulator to make sure that the site meets our criteria to be released for any future use, unrestricted use. Any use the owner wants to use of it.

The actual use of the land would be governed by the local regulations. The zoning people, the county commissioners, or whatever the ---

MS. ERICSON: Yeah well (inaudible) intention is, if GE would be willing to share that information is what, you know, I'm curious as to the,

you know, why now releasing this is? Is there a particular reason that might be related to future use of the land? Thank you.

MR. CAINE: We don't have any specific purpose. The timing was a business decision. It started last year. We do not re-zone. We don't get involved in the whole rezoning process.

MS. ERICSON: Right.

MR. CAINE: So our intent is we're going to sell it in the Open Space Natural status. And whoever buys it, will buy it with some purpose in mind. Whether it's to go through the re-zoning process or build one house out in the middle and live there or --

MS. ERICSON: And you don't have any potential buyers who are --

MR. CAINE: Our realtors are having discussions with a variety of people. And honestly, the potential applications have been pretty wide ranging.

MS. ERICSON: Okay.

MR. WATSON: Any other questions, comments? Do you have any more? We're required to be here until 8:30, because we advertised that we would be here until 8:30, so.

MS. ERICSON: Well, it's not directly related to this, but I'm curious about, because certainly I don't know. I know there must be some sort of fuel rods that resulted, even from the test reactor. I guess there's two, but only one active of the test reactors? I think there's, like, four reactors. Two are power reactors?

MR. WATSON: Right. There's three that are in decommissioning. They're completely de-fueled.

MS. ERICSON: Okay. So --

MR. WATSON: The fuel's gone. And then the one that's operating has its fuel, but to operate with.

MS. ERICSON: Yeah.

] MR. WATSON: Okay.

MS. ERICSON: So I'm just wondering how that gets disposed. I know it's not related to this, but since you laughed.

MR. WATSON: Well, I'm just saying that that's the status. The fuel will eventually be given to the Department of Energy for their, I guess, final disposition in whatever repository they ever get to. So we were hoping they'd get one together soon, so that all the spent fuel has a repository to go to.

MS. ERICSON: And the spent fuel from the

decommissioned reactors have all been removed or are they still on site?

MR. WATSON: All the fuel from the decommissioned reactors were removed in, I believe they were transferred to the Department of Energy a long time ago, right? Yeah.

MR. CAINE: Back in the 60's, 70's (inaudible).

MR. WATSON: Yeah, I guess it was Atomic Energy Commission and --

MR. CAINE: The AEC.

MR. WATSON: Yeah, back then.

MS. ERICSON: Okay.

MR. WATSON: So there's no fuel from those three reactors on site. Okay?

MS. ERICSON: Thank you.

MR. WATSON: Let's see, what time is? Just for the record, it's 7:22. We've been here almost an hour, so in short, there are no other questions?

My staff and I and my fellow colleagues from the NRC will be here until 8:30 because we said we'd be here until 8:30. So if someone shows up later and asks questions, we'll be here to answer them, so. But if anything comes up, let us know. Other than

that, we'll just go on hold mode, okay?

And again, thank you all for coming. Let me just summarize real quick, since I don't know if everyone's going to hang around, but GE has requested that they receive NRC approval to release about 600 acres, I believe it is, of non-impacted land.

The land is in some of the licenses, so they have to ask our approval. They've done some radiological assessments and historical site assessments of the area and concluded that it is not impacted. They made that request to us formally back in April.

We have responded by taking a look at what they've sent in for documentation, looked at their data analysis of their sample of results, and we have come here through the inspection process and brought in our independent contractor, Oakridge Associated Universities, to perform confirmatory surveys.

And those surveys were conducted over the last two and a half days. They've took a number of samples and did a number of walkovers, gamma surveys, to validate that the land is not impacted.

They will be taking those samples back to their world-class laboratory in Oakridge, Tennessee, and those will be analyzed.

And they'll be providing us a report to our regional office Inspector, Dr. Robert Evans, and he will include that in his inspection report. At the least the summary of the results. I believe the report actually from Oakridge will eventually be publicly available also, as well as his inspection report.

Once that's concluded, if he agrees that the site is not impacted and can be released, Jack Parrott, who's the Project Manager, will take care of the licensing side of it. Even though it's not a license amendment, it still requires us to send back in a letter, either approving or disapproving their request.

And once that's done, then the licenses can be modified to reflect the change in the site and that even though GE still owns the property, it's no longer part of the license.

And so that's the process and we'll continue to follow it, because that's what our requirements are, so.

DR. EVANS: I'm sorry, just one more comment. Jack Parrott will eventually respond to this letter? The one you're talking about?

MR. WATSON: Jack will formally respond.

DR. EVANS: But we can't do it until the public comment period is ended?

MR. WATSON: Right.

DR. EVANS: In case there's any last-minute comments that come in on the technical accuracy or adequacy of the documentation.

MR. WATSON: Okay. So sometime later this fall.

MS. ERICSON: I would like to be able to get the sampling methodology. Well, I guess, both the NRC's and GE's. So if I can, if somebody can help me or process that.

DR. EVANS: You mean methodology like where the samples were chosen?

MS. ERICSON: Were the specific, each sample --

MR. WATSON: You know what, typically -

MS. ERICSON: -- was stratified or mixed and (inaudible) --

MR. WATSON: What typically happens with our samples --

(Off microphone comment)

MR. WATSON: I'm sorry.

REPORTER: I only can hear one speaker at a time.

MR. WATSON: I know. I'm sorry. I spoke.

REPORTER: (Inaudible) point to the (inaudible) --

MR. WATSON: Okay.

REPORTER: -- which is (inaudible).

MS. ERICSON: No, it was the question I raised earlier about the specific soil samples and how, you know, how the soil was taken, how deep the holes were, whether it was stratified and analyzed, stratified or mixed, so that you can get an average --

MR. WATSON: Mm-hmm.

MS. ERICSON: -- sample.

MR. WATSON: Yeah. I know the Oakridge procedures call for a soil sample to be taken six inches deep and then they do a survey in the hole to make sure there's nothing lower than that.

MS. ERICSON: Mm-hmm.

MR. WATSON: In a lot of cases, I think they were hitting rock four inches down or something, so. But then they take that soil from that six-inch hole that they take out and blend it, mix it together, and then it's all analyzed. The complete sample is analyzed, so.

MS. ERICSON: Okay.

MR. WATSON: So it's --

MS. ERICSON: So it's not stratified.

MR. WATSON: No, so.

MS. ERICSON: Okay.

MR. WATSON: Okay? But that's their standard procedure.

MS. ERICSON: Okay.

MR. WATSON: Okay? And --

DR. EVANS: It's basically kind of like a six-inch plug --

MR. WATSON: Yeah.

DR. EVANS: -- that they will put into a, like, literally a gallon Ziploc bag. They'll take it back to the laboratory. They'll remove the twigs. They'll remove the rocks. Anything that's not soil. Vegetation. They may dry it in an oven just to remove the moisture.

MS. ERICSON: Mm-hmm.

DR. EVANS: And then it'll be a very homogenized sample at that point. And then they'll take a portion of it and run it through their, what's called, gamma spectroscopy, looking for what we call gamma emitters.

And then the radionuclides that they're looking for in particular, or what we would call fission product, which is like Cesium 137, Cobalt 16.

MS. ERICSON: But I also thought there were alpha and beta analysis.

DR. EVANS: Gross alpha and gross beta is --

MR. WATSON: Common, yeah.

DR. EVANS: Common, but not necessary under every scenario.

MR. WATSON: Okay. I think it's maybe we reached the -- yeah, we're at 7:30. So, with that, we'll just kind of go on pause here.

And if you have any other questions that come to mind before we leave, that's great. If we have anybody new come in, we'll do our best to answer their questions.

So thank you all for coming. Like I said, my staff and I will be here until 8:30. Thank you.

(Whereupon, the meeting in the above-entitled matter was concluded at 7:30 p.m.)