

Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

Title: Discussion of the Crystal River Unit 3
Post-Shutdown Decommissioning Activities
Report

Docket Number: NRC-2013-0283

Location: Crystal River, Florida

Date: Thursday, January 16, 2014

Work Order No.:

515

Page

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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DISCUSSION OF THE CRYSTAL RIVER UNIT 3
POST-SHUTDOWN DECOMMISSIONING ACTIVITIES REPORT

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Thursday, January 16, 2014
Crystal River Training Center
Emergency Operation Facility
Room 150
8200 West Venerable Street
Crystal River, Florida

The above-entitled hearing was conducted
at 7:00 p.m.

BEFORE: SARAH LOPAS, Facilitator

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P R O C E E D I N G S

7:00 P.M.

MR. WATSON: Well, good evening and welcome. Thank you for taking some time out of your busy schedules to be here tonight to participate in this public meeting on the Crystal River Post-Shutdown Decommissioning Activities Report.

Tonight's meeting is a Category 3

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Meeting, which means the public participation is being actively sought by the NRC. A report of this meeting will be prepared by the NRC and will be made available to the public through our agency-wide document access and management system. It is also being transcribed and that will be placed on our website. So any document submitted to the NRC and comments made by the public during this meeting will become part of the public record.

I want to thank Duke Energy for allowing us to use their facilities. Issues that need to be addressed or can be addressed by Duke Energy will be done after the meeting. As I said, this is an NRC meeting, so we want to keep the subject matter to the PSDAR or Post-Shutdown Activities Report as much as we can.

As far as introductions, with me tonight are Chris Gratton. He's currently the Project Manager from the Office of Nuclear Reactor Regulations. Chris is the Project Manager and was handling the transition of the license to decommissioning.

Also with us is Marc Ferdas. Marc is the Region 1 Branch Chief for the decommissioning oversight inspection that will be conducted here -- or is being conducted here now that the plant is in decommissioning.

Also with me is Mike Dusaniwskyj. He is

from our Office of Nuclear Reactor Regulation, the NR, and he's a Financial Analyst. Also with him is Mike Purdie. Where did Mike go? Over here. And he's also a Financial Analyst. Actually, Mike's an Economist. Yes, sorry. I want to make sure I get it right.

Also Diane Sharansky (phonetic) from OPA -- I knew I'd mess that up, and on the phone is Howard Benowitz from our Office of General Counsel, and members of the general public who have elected to call in.

Are there any public officials here that would like to be recognized as part of the meeting? Can you stand up and introduce yourself?

MR. MASON: I'm Ash Mason, I'm from Senator Mark Rubio's office. So, I here to listen and report back to the Senator. Thank you.

MR. WATSON: Okay. Any others?

(No response.)

Also, one of our key players tonight is Sarah Lopas, and she is our Facilitator. She'll be facilitating the comments and questions session of the meeting.

Right now our Agenda is such that Chris will be talking about the current plant status. I will be discussing the decommissioning process and the Crystal River 3 Post-Shutdown Activities Report, and I'm going to refer to that as the PSDAR, just to

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make it simpler for me.

I had originally planned to have John Hickman here, who is going to be the Project Manager for the decommissioning for my organization, but he is out with an illness.

Mark Ferdas will then discuss the NRC inspection process and then we'll take a short break and we will hear your comments on the PSDAR, which will be facilitated by Sarah. And I'll just turn it over to Sarah now for some of the meeting information.

MS. LOPAS: Okay. So my name is Sarah Lopas, as Bruce had mentioned. I want to acknowledge the folks on the phone. I hope you can hear, we're doing our best. We are going to ask everybody to speak in the microphone if they do want to speak tonight so that the folks on the phone can hear.

Like the operator said, you are in listen only mode. But, when you want to make a comment we can certainly have you -- you're going to press star 1 and we can un-mute your lines.

So we're here at the Nuclear Plant Training Center at the Emergency Operations Facility. And although we're in the Duke building, as Bruce has said, you know, please try to direct your comments to NRC. There are going to be Duke staff available for questions after the meeting

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after we close the NRC portion.

If you need to leave the room in a hurry, there are the two emergency exits. The bathrooms are out that way and to the left, if you need to use the facilities.

The meeting is scheduled to go through nine o'clock. So, you know, I think there aren't that many people here so we should be able to get through as many people that want to speak or ask questions tonight as needed.

I want to note that there are paper copies of the Decommissioning Activities Report over on that table over there. So you're certainly welcome to take those home with you. There's CDs of the Report over there as well, if you prefer electronic copies, just pop the CD into your computer. And then you can also access it, the electronic copy, on NRC's website using this ML number right there, ML 13343A183. Sorry, I'm standing in the way of folks here.

Let's see. So, the objective tonight is for the NRC to gather your comments and listen to your comments on the Decommissioning Activities Report. When we get to the comment and question portion of the meeting I'm going to ask folks to come up to this microphone.

If you happened to sign in on your way into the meeting and noted that you wanted to make a

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comment, I'm just going to go down that list. Otherwise, we are going to take a short break right after the NRC staff portion and you can come up and you can sign up with me if you want to speak. And because we are such a small group, pretty informal, you know, we can just raise hands too if you decide at the last minute you want to make a comment or ask a question.

Let's see. For the folks on the phone, our operator is Sheila, who's been very helpful. So when we get to the comment and answer period -- comment and question period -- I'm sorry -- again, you'll just press star 1 for the folks on the phone.

And when we do take a break, and you're going to go on hold for a little bit and you're probably going to hear some lovely hold music. So don't go off the line, just hang tight and we'll be back.

Another housekeeping issue we have is, Gretchen is here, she is our court reporter. So in order for Gretchen to get an accurate transcript of everything you're saying tonight -- yes, sir?

MR. OATES: I was going to ask, are the people on the phone logged in to her so they're registered in?

MS. LOPAS: So for the folks on the phone there was just a question. Are the folks on the phone logged in so that Gretchen can record

their question? And it's probably going to be difficult for Gretchen to hear the folks on the phone, I'm guessing, because they're just going to kind of come out through the phone.

COURT REPORTER: I'm going to use another recorder for the phone.

MS. LOPAS: Right. So there's another recorder for the folks on the phone so their questions and comments will get recorded.

MR. OATES: Thank you.

MS. LOPAS: I can also kind of try to summarize what they say too. So we'll go that way. Good question, though, I like that question.

So Gretchen will be recording everything tonight, so try to speak slowly, clearly. When you come up to the microphone give your name first, start off with that. And if you do want to be heard tonight and you want to be recorded, you have to be on the microphone for Gretchen.

And let's see, a couple more things. There's a public meeting feedback form on that table. That's a form that's specific to the meeting. If you have any comments on the meeting, how it went tonight, ways we can improve on these types of meetings, please fill out that form. It's got the postage paid. So if you don't want to fill it out tonight you can take it home, fill it out, it's addressed. You just fold it up and literally

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just put it into to mail. So, don't forget our public meeting feedback forms.

And, I think that's it. A couple of words on courtesy. I don't think that's a problem here tonight. If you have phones, turn them down. And if people have differing opinions, try to be respectful of their opinions when they give comments.

I think that's it. I'll give it back to Bruce.

MR. WATSON: Okay, thank you. I want you to know that the NRC has significant experience in regulating decommissioning activities. This graph shows our accomplishments, I guess the licensee accomplishments since our regulations -- current regulations went into effect in 1997. Those being the license -- what we call the License Termination Rule in 10 CFR 20, and the Reactor Decommissioning Rules in 10 CFR 50.

So we've got some extensive experience with this. We have terminated the licenses of 11 power reactors since -- over the lifetime. We've also included -- 7 of those were since 1997 under the current regulations. So, there's some extensive experience in that area.

We've also terminated 13 research and test reactors, those licenses have been terminated, and 42 complex material sites. So we have a pretty

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good track record of success.

So the key thing here is that the regulations work, all these sites have been released for unrestricted release. In other words, they can be used for whatever purpose the owner of the land wants to use it for after the decommissioning is complete.

With reactors, though, those that have spent fuel we do shrink the license down to -- or issue a separate license for the spent fuel that is stored on-site. And of course that will be on-site until a permanent repository is determined by the Government.

So, like I said, we have extensive experience in this. It's a very good safety record for decommissioning facilities and we'll be talking a little more about that when Marc talks about the inspection process. So we do continue with oversight of these activities even though the plant is permanently shut down.

I'll turn the mike over to Chris Gratton who is going to talk about the operating -- the current operating status.

MR. GRATTON: Thanks, Bruce.

Good evening everyone. My name is Chris Gratton and I am the Licensing Project Manager for Crystal River. I'm responsible for the operating license for the plant.

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Since the licensee made the decision to decommission the plant, I am also responsible for the safe transition of the operating license from an operating configuration to one that is more suited for the decommissioning status of the plant.

I'd like to go over some information about the changes to the operator license now that the plant is in decommissioning. Crystal River began operation in 1977. During an outage that started in September 2009, the licensee sustained some damage to the containment structure. The licensee attempted to repair the damage, but later, following a comprehensive analysis, decided to decommission the reactor. Official notification of this decision was made in early February 2013.

Later in February 2013, the licensee, in accordance with NRC regulations, submitted a letter containing a certification that the licensee would permanently cease operation of the reactor and permanently remove all fuel from the reactor vessel.

This is an important milestone in the life of the plant because with the certification the regulations no longer authorize the licensee to operate the reactor or reload the fuel into the vessel. For the NRC staff it also starts the process of transitioning the unit from an operating reactor to one that's in decommissioning.

Once the certifications are made the NRC

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anticipates that the licensee will submit several licensing actions that will conform the operating license to a decommissioning status of the plant.

The licensing actions include modifying the set of technical operating requirements that were applicable to the plant when it was authorized to operate to better conform them to the shutdown plant since much of the equipment no longer has a safety function.

The licensee may also modify the emergency and security plans to conform them to the decommissioning status of the plant. The NRC staff reviews and authorizes these changes as appropriate prior to their implementation. Many of these licensing actions are currently under review by the NRC staff at this time.

The regulations also require that the licensees submit a Post-Shutdown Decommissioning Activities Report, which is the subject of this meeting. The PSDAR provides the NRC and the public with a general overview of the licensee's proposed decommissioning activities before they occur and informs the NRC staff of the licensee's expected activities and schedule so that we can plan inspections and make decisions about our oversight activities.

The PSDAR for Crystal River was submitted by the licensee in December 2013. It is

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publicly available for comment for 90 days. We will consider the comments that we received from the public as we perform our review of the licensee's PSDAR. The staff will complete the collection of public comments on the PSDAR on March 5th, 2014.

To further discuss the decommissioning process and the role of the PSDAR, I'm going to go ahead and turn the discussion back over to Bruce. Thanks.

MR. WATSON: Again, thank you for attending tonight. I'm going to talk about the Post-Shutdown Decommissioning Activities Report and of course the decommissioning process in general.

And we'll start with the decommissioning process. Our regulations are in Part 50, they are performance based regulations. They require that the licensee, when they permanently cease operations, to certify that when they do permanently cease operations we have received that letter from Duke Power -- Duke Energy.

There is also a second certification that they are required to send us, that is to certify that the fuel has been permanently removed from the reactor. At that point they are no longer authorized to operate the reactor any longer.

There is an additional requirement that they submit to us, the PSDAR, within two years of that shutdown date. So, we are here to discuss

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that. Obviously they have met that date.

The plant can either go into a safe store condition or into a decommissioning situation, which we would call de-con. The regulations require that the decommissioning be completed within 60 years. Now, our requirements are for the radiological decommissioning of the plant. There may be additional decommissioning requirements on the licensee or the utility by other regulatory agencies. But our responsibility is to ensure that the radiological conditions of the plant will be performed safely and meet our requirements, our criteria, to terminate the NRC license.

Prior to providing us with an application for the license termination, the licensee is required to submit to us a license termination plan. That license termination plan must be submitted to us within two years before they would request that license termination.

If the licensee meets all those license criteria for the termination, then we will terminate the license. Okay? It's a fairly significant process that begins the decommissioning process.

Like I said, our regulations are performance-based. They allow the licensee up to 60 years to complete the decommissioning. This assumes 50 years for a facility to be in safe store, in other words if you want to call it, "mothballs," in

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a stabilized shutdown state, it has been defueled, and basically put in a situation where it will be stable for that 50-year period.

And accompanying that 50-year period would be a period of 10 years, which is typically what it takes, 7 to 10 years to decommission a facility, totaling 60 years. So, that's the basis for the 60 years.

Some of the benefits of that are that the radiation doses in the plant, at the end of that 50-year period would be about 1 percent to 2 percent of what they were when the plant was initially shut down. So there is some significant dose savings to the workers who will disassemble and decontaminate the plant.

At the 50-year level or year period, the radioactive waste volumes will be reduced to about 10 percent of what they were when the plant was first shut down due to radioactive decay. Some of the major radionuclides such as cobalt 60, which have about a 5 year half-life, will have all decayed away which will also contribute to the dose. But the major portion of the components in the plant will have been reduced to a point where they are no longer radioactive and can be -- do not require to be disposed at a low level waste disposal facility. This obviously offers significant savings, since one of the major economic savings, since one of the

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major cost components of decommissioning is low-level waste disposal. During this period it also allows for the decommissioning fund to increase since it's invested and will be gaining interest.

Now, you might ask yourself, well, what are the decision factors for a licensee? And, again, it is the licensee that makes these determination, not the NRC, for the licensee to make that determination on the decommissioning strategy.

One issue is multi-unit safety. So, we have a number of units, as a matter of fact we have 17 reactors including Crystal River right now, in decommissioning, in some status of decommissioning. Many of those are at multi-unit sites, so the operator is allowed to focus on the safe operation of the operating units while not being concerned about the decommissioning of the plant that's shut down.

Some issues are financial, some of it is the decommissioning fund availability. Some of the plants that have shut down prematurely need to have the decommissioning funds grow -- to grow and so they have sufficient funds to allow the decommissioning to be completed safely.

One decision that has affected many of the plants previously is, do they have access to the radioactive disposal sites, or have the capacity to dispose of that material. This was a major factor

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in the sites that shut down in the 2000's, because some of the barrel sites at that point, such as the one in Barnwell, South Carolina, was being closed to states outside the compact here in the Southeast.

Some decisions are factored by the fact of future use of the site. I know of at least one site that wants to decommission their site so they can build another nuclear plant on it. And some of these plants do have additional generating capacity built on them. Some were created -- changed into parks. It depends what the licensee wants to do with the site.

Other factors are the input from the stakeholders, obviously the public and the state Public Utilities Commission can influence the licensee's decisions.

There is a new business model which has affected at least one site, in that the licensee turns the license over to a private entity who decommissions the site and then returns the site to the licensee at the end, along with the nuclear fuel. There is a certain amount of decision-making in that, but, again, the decommissioning is inspected and overseen by the NRC and basically this company becomes the licensee. So, that's something new that's out there.

There are special circumstances concerning decommissioning. The example I will give

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you is San Onofre in California. San Onofre Units 1, 2, and 3, are on land owned by the United States Navy, and they have a lease agreement with the Navy and the Marine Corps as part of, I think Camp Pendleton, and are certain requirements in that lease agreement on decommissioning. So, there are other special circumstances that can affect decision-making.

The PSDAR requirements, like I said, are in our Part 50 regulations, they are the specific regulations. The PSDAR has basically four components. The licensee has to describe to us the planned decommissioning activities, the decommissioning schedule, a cost estimate for the decommissioning, and a review of the environmental impacts of the decommissioning to make sure it is currently within the Environmental Impact Statement and environmental reviews and assessments that have been done for the site.

I will mention that there are additional guidance documents if you choose to look at those from our website. Regulatory Guide 1.185 covers the content and format that we expect -- and the information to be in the PSDAR.

The review process by the NRC. We will Notice the PSDAR in the Federal Register and we will have a public meeting to request public comments. We also will schedule a meeting, such as tonight, to

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solicit comments from the public, and we will consider those comments.

We will review the PSDAR in accordance with Reg. Guide 1.185, which I just mentioned. I want to point out to you that the PSDAR, the Post-Shutdown Decommissioning Activities Report, is not required to be approved by the NRC. However, we will review it to ensure that it meets our requirements for content and make sure that all the issues are covered. If they do not, we will request additional information from the licensee. It's important that we accept, I guess -- receive the PSDAR so that the licensee can get on with the decommissioning.

The PSDAR review criteria that we use. We would ensure that the decommissioning can be completed as described in the document. We want to make sure that the decommissioning can be completed within 60 years. We want to make sure that the decommissioning can be completed for the cost estimate that the licensee provides us. And, we want to ensure that the licensee's activities or the decommissioning activities will not endanger any public health or safety of the environment, because safety is our business, and that's what we regulate.

Some of the PSDAR highlights for Crystal River 3. They entered decommissioning status on February 20th of last year. The plant will remain -

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- and currently in safe store mode until decommissioning begins.

I want to point out to you, just because a plant is in state store does not mean that decommissioning activities cannot be performed. They can be performed. It is at the level of detail and level of effort that the utility wants to put into that decommissioning, so it's their schedule.

Right now the plant is what we would call Phase 1. They are preparing the plan for decommissioning. They are removing extraneous equipment, any low-level waste that's currently on the site are typically disposed of, they are draining systems, and de-energizing systems -- components to make sure they are safe so that when they do enter whatever mode of decommissioning they're going to be in, the plant can be maintained in a stable condition.

So as I said, the Crystal River decommissioning has to be completed within 60 years, which turns out to be February 2073, and they did provide a cost estimate which will be reviewed by the NRC folks. And the environmental impacts of the planned decommissioning activities are bound by the impacts associated with the cleanup and what we call the GEIS, which is the General Environmental Impact Statement.

So, in conclusion for the PSDAR, we

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received the PSDAR on December 2nd, we will take about 90 days to review it. Although the NRC is not required to approve the PSDAR by regulation, we will review the PSDAR to make sure that it meets our content requirements.

One of the decisions that was made about us not approving -- about the NRC staff not approving the PSDAR is that the Commission, the NRC Commissioners determined, when this Rule was made, that having trusted the licensee to operate the plant and manage the nuclear fuel, there was really no need for us to approve, basically, their strategy for decommissioning. And that's basically what this PSDAR is.

Like I said, we will consider public comments in our review of the Crystal River 3 PSDAR. We will be concluding our review about March 5th, so we would like to receive your comments by then. So, that's where we are on the PSDAR.

I will turn the mike over to Marc Ferdas who is going to talk about the decommissioning power reactor oversight inspection program.

MR. FERDAS: Thanks, Bruce.

Everyone hear me okay? All right, great.

Well, good evening. Thank you for coming out. As Bruce said my name is Marc Ferdas, I am Chief of the Decommissioning and Technical

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Support Branch in our Region 1 Office.

I think the first thing I'd like to clarify is, why Region 1 for the NRC? Originally Crystal River was in our Region 2 office, which is in Atlanta. However, approximately over -- I'd say over 10 years ago what we did is, NRC did some consolidation in our materials and decommissioning program -- and when I referred to "materials," it's non-reactor use -- and that got consolidated up into Region 1, thus, Crystal River had fallen under the oversight of Region 1. And that occurred officially on August 1st of 2013.

Just a little bit about Region 1, particularly my branch, just in terms of what we do. We do have oversight responsibility for all material use, as I said, and decommission activities; that's both reactor and non-reactor. We also perform dry cask storage inspections throughout the Northeast. However, with Crystal River being in Region 1's purview now we will take on the Crystal River oversight for future dry cask storage as well.

Just in terms of Region 1 in terms of our experience with decommissioning activities. We currently are providing oversight responsibility for four other decommissioning sites, they are all in safe store. They are Three Mile Island 1, Peach Bottom 1, Indian Point 1, and Millstone 1.

We also currently perform inspections at

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16 dry cask storage facilities in the Northeast, and currently we're providing oversight on the construction of two other sites in the Northeast. So we do have, I would say, some good experience in the areas of plants in safe store and also in terms of dry cask storage.

Okay. Now, a little bit about the oversight program. It can all be found in Inspection Manual Chapter 2561. That is available on the NRC website, so if you do want to read about it in detail. But it lays out how we will provide oversight for a plant as it transitions to a shut down status all the way through license termination.

And with each of those -- and we'll get into it shortly -- is, besides the Inspection Manual Chapter there is, I'll say many inspection procedures that are then implemented, you know, at this site by inspectors and from my branch.

The oversight program, it includes independent inspection activities done by the NRC. We have technical experts in a variety of areas, HP -- excuse me -- Health Physicist, Engineering, Security, Environmental, Emergency Preparedness, et cetera. So, we do have a breadth of experience that we can draw on from the operating side of reactors as well as folks that have experienced in the decommissioning area.

There's really three objectives of the

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inspection program, and I'll read them here from the slide is: Spent fuel is safely being stored; decommissioning activities are being conducted in a manner that ensures the safety and security of the public, the workers, and the environment. So we're looking for all three in terms of safety. And then, site operations and license termination activities are performed in accordance with federal regulations and licensing commitments that they've made over the years.

Okay. In terms of our inspection program there's two types of inspections that we do. One's called a core inspection. Those are required to be performed annually at the site, and then there's what's called discretionary inspection procedures, and they're performed as an as-needed basis based on activities going on at the site as well as if any issues were to occur while in our oversight purview.

You know, one thing I will point out is the level of effort and the specific activities performed depends on what phase of the decommissioning process the licensee is in. And I'll get into what -- and on here on the slide you can kind of see how a site would transition through the various phases.

You have the post-operational transition phase, which is what we're considering Crystal River

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to be in right now. There could be an active decommission with fuel in the spent fuel pool or without. And then you also have safe store, which Bruce briefly touched on earlier, with fuel in the spent fuel pool or no fuel in the spent fuel pool.

Then after all this you have your final surveys, and that's where we have extensive oversight and actually use independent contractors to do confirmatory measurements as well with the licensee.

A lot of our program is -- I would say it's designed around the concept of trust, but verified. We review multiple documents. We also want to, you know, do our own independent reviews along with those.

On this slide I just wanted to, you know, briefly show you the core -- the types of inspection procedures that we'll do. Like I said, all of these will be done on an annual basis. Our plans currently are to do several inspections over the year, likely on a quarterly basis, at the site for some time until it transitions to a pure or a true safe store status, in which our current inspection program in Region 1 is about annually once it's in a safe store status.

And of course if any type of issues or events were to occur we would be in some periodic discussions with the licensee on things, we can

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always come out and do additional inspections.

Just a note here. There's two procedures that are under revision. One is what we're calling the Adverse Weather Preparations previously. It's currently called the Cold Weather Preparation, and it's kind of funny, all the plants that decommissioned were in cold weather stations, and when Crystal River came we changed the dynamic. So we are currently using -- updating that procedure to address both cold and warm weather sites. So that should be completed, I'm anticipating within the next year.

Also you'll see the physical security assessment procedure. That's an XXX. That's also being revised at this time.

In terms of oversight status for Crystal River. As I said, they are in the post-operational transition phase, that's as they are getting the station ready to put into a safe store status. That's identifying systems that they need to maintain for safe store -- abandoning it's called, or putting in a layup or safe condition, systems that they don't need; getting rid of fluids and other things that could cause any hazards within the plant.

Also plans will be to do some de-con -- decontamination, excuse me, for areas of the plant just for worker safety so they can go through the

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plant easier removing low-level waste at the site and other ancillary activities as they prepare for safe store.

Here, what I was saying, there's no traditional or major decommission activities being performed at the site, as Bruce said, at this point in time.

We have completed one inspection here at the station, that was back in October of 2013. That's where we performed all those core inspection procedures that I showed you on the previous slide. The inspection resulted in no findings. The licensees concluded that site operations were in conformance with all federal requirements, licensing commitments, and management controls.

We do plan several inspections in 2014. And all of those reports are publicly available on our website if you want to look at those.

I think the major thing, just to point out, and Bruce did it is, there will be continued oversight and monitoring of the plant all through the decommissioning process. Even though it's a long process of 60 years, we do have a statutory requirement to provide oversight of that and our inspection program allows us to transition as the plant transitions for the various oversight inspection activities that we're mandated to perform, so.

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I will now turn it back over to Bruce.
No? Sarah.

MS. LOPAS: So just to follow-up. So Chris Gratton and John Hickman are your two main points of contact for questions about the decommissioning activities. Bruce, there, is your main point of contact if you have questions about the decommissioning program in general, since he's the Branch Chief of our Reactor's Decommissioning Branch. And then Marc, who was just speaking, he's your point of contact if you have any questions about the inspections going on at the plant.

So, we can put this back up a little bit later if you need to write that down.

Do you want to go to the next slide?

So, right now we're going to -- in a little bit we're going to move to the public comment portion of the meeting and the question and answer portion of the meeting. And although we're being transcribed tonight by Gretchen, recording all your comments, the NRC does encourage you to submit written comments too. You know, maybe you want to elaborate on what you're saying tonight, maybe you want to grab that paper copy of the report and take it home with you, flip through it, you know, submit some more detailed comments. Or, maybe you just don't want to get up and speak tonight. That's totally fine.

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So, there's a couple ways you can submit your comments. To do it online, you know, with your computer on the website you go to www.regulations.gov, and it's a pretty simple website. You're just going to go in there and search the term, NRC-2013-0283. That's the docket number for this project, and that will just bring up a form that you can just literally type in.

Just hang on one second, we'll get to your questions. I know you've been dying to ask questions all night.

That will be just an electronic form that you will fill in and you hit "Enter" and the comments go to the NRC. You'll get a confirmation back that, yes, you know, thank you for your comments.

Carol Gallagher, she's the contact person if you have questions about submitting comments on Reg.gov. Don't submit comments to her, do it through that regulations.gov. She's just the person where if for some reason you can't get it to work, Carol's your contact there.

You can also just handwrite it, you know, mail in literally with snail mail. You can mail comments into Cindy Bladey, at that address down there at the bottom. And again, we'll put this slide back up for folks, you know, so you can copy it down.

And, do we have handouts of these addresses at all?

MR. GRATTON: Yes. There's a copy of the contacts as well as this.

MS. LOPAS: Okay. So on that table there is a copy of this slide and the slide before.

And, I think that's it. Chris, are we going back to you before the break?

MR. GRATTON: Yes, there are a couple of items I just want to reiterate.

First of all, Marc's inspection team in Region 1 is very experienced. They were responsible for the inspections at Maine Yankee, Connecticut Yankee, Yankee Rowe, and Saxton, which those licenses have all been terminated, so it's a very experienced group. So I want you to know that these people are well trained and qualified to conduct these inspections.

Secondly, these slides that we have here tonight will be available on the NRC website in about a week, so they'll be available. You can also contact Chris Gratton if you want to get a copy of them.

The NRC website is of course www.NRC.gov. The PSDAR can be found in our Agency Wide Document System, that is the ML number that you would type in to get that if you want to look at it online. Like I said, we do have paper copies, we

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also have CDs of the PSDAR here you can take with you. And I wanted to remind you that we do have the public feedback forms which is another way to send in comments. It's very easy, just write them down and put it in the mail.

So, with that we're going to take a five minute break and then we'll start with comments and questions and that will be facilitated by Sarah. Thank you.

MS. LOPAS: Now, for folks on the phone I think you're going to go on hold temporarily, so hang on and we'll be back.

And, if anybody wants to come up and sign up to speak, if you didn't when you came in, come up and see me. And 7:45 is when we'll restart.

(Off the record, 7:40 p.m.)

(Back on the record, 7:50 a.m.)

MS. LOPAS: We're going to get started with a comment period. We will also have a little bit of a question and answer period as well. If the NRC folks can answer, they will. If they can't answer a question tonight they can follow up with you. If they don't have the answer tonight they can certainly follow up with you.

And so I'm going to ask Mike Purdie there, if you do have a question and we can't get to it tonight, to will follow up with you and get your contact info so we can indeed follow up with you

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like we say we are.

The folks on the phone, there aren't that many of you, I think there's only about three of you. If you would like to make a comment I'm going to ask you to press star 1. And we're going to start up here in the room and then if anybody wants to speak on the phone I'm going to go check the phones and we'll get you on too.

So, can we start with Representative Dudley first? And then -- if he's in the room.

REPRESENTATIVE DUDLEY: Thank you, I appreciate it.

MS. LOPAS: Yes. And if you can just come up and use the mike? And that goes for everybody.

REPRESENTATIVE DUDLEY: Good evening. Dwight Dudley, District 68 Florida Legislature, House of Representatives.

I really have a question for the Commissioners regarding a little bit of how we got here. I don't want to try to deconstruct the whole thing because a lot has happened. But I just know that when I want to remodel my home or do anything like that that I have to go through a number of steps and get permits and so on.

And I would just love to see a report on how we got where we are; how this asset, this multibillion dollar asset was destroyed, what the

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shortcomings were, what the mistakes were, who is to blame, and so on. Because the people that I represent in District 68 and throughout the State of Florida, are paying a lot of money for this.

We are essentially apportioned. We are paying 81 percent of the bill and Duke is paying about 19 percent. So, it doesn't seem like a very fair thing. I would love to see a report, a comprehensive report, if one exists. If one hasn't been done I'm just curious why it wouldn't have been done.

And, is anybody able to comment on that?

MR. WATSON: The NRC will not be producing a -- I guess I'll call it a report -- specifically to the issues at Crystal River. I'm sure the utility has done a number of internal reports, which we may have reviewed. I'm sure they've done a root cause analysis on why the issues came up with the containment failure and other things that presented themselves to get them to where they are today.

So, I guess as a Representative, you could probably ask them for those type reports, that they may be willing to give them to you. Obviously they have not been provided to us, that they would be publicly available at this point, so.

REPRESENTATIVE DUDLEY: Well, I certainly am voicing that request, to have a report.

I didn't know that one was done, I'd love to see it. If you have one I think the public deserves to know, and that would be much appreciated.

MR. WATSON: I know that there will be some Duke Energy people available to field some questions after this meeting. Perhaps you can ask them then.

REPRESENTATIVE DUDLEY: I appreciate it.

MR. WATSON: Okay. Thank you very much.

REPRESENTATIVE DUDLEY: Thank you.

MS. LOPAS: Thank you, Representative Dudley.

Next we're going to go to -- we have Edward Mercer. If Edward would like to come up.

I want a quick note before Edward goes on. Edward, you can come on up. But, we have blank comment forms over there, so if you feel the need and you want to jot something down and leave that form with us tonight, you certainly can. And there is also 3 by 5 cards up there, where if you want to ask a question but you don't want to get up and stand in front of everybody, then you can fill out one of those cards and hand it to myself or Mike and we can read it aloud for you.

Okay. So, Edward, you're on. Thank you.

MR. MERCER: Thank you. Ed Mercer.

I guess one question would be on the

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financial assurance end. How does NRC ensure that -
- or the facility ensure that there is enough funds
60 years from now to complete decommissioning? You
know, with the prices of everything going up, you
know, we have a finite amount of money that's
estimated for the decommission right now. But how
do we ensure what there is available or will be
available will actually cover that cost?

MR. DUSANIWSKYJ: That's me.

MR. WATSON: That's why we brought Mike
Dusaniwskyj.

MR. DUSANIWSKYJ: And I want to use this
microphone.

MR. WATSON: Okay.

MR. DUSANIWSKYJ: That is a fair
question and I'm going to answer that, such that I
can probably wind up taking the next half hour,
because truthfully I am an economist who has a
first-rate --

MR. OATES: We've got the time, sir.

MR. DUSANIWSKYJ: Pardon me?

MR. OATES: We've got the time to hear
the answer to that.

MR. DUSANIWSKYJ: I will give it to you.

Number one, there are no guarantees
here. The regulations only require that there be a
reasonable assurance that funds will be available
for decommissioning.

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This process did not begin the day that Crystal River 3 decided to go into decommissioning, but the process began when the license was issued. Every licensee takes on the responsibility to decommission a plant that they are licensed to operate. And in that course of time they are putting away money, which I'm sure you are aware of, during the course of the operation -- the operational life of the license.

That is reviewed by the NRC every two years, and we check to see whether or not by forecasting forward reasonable assumptions based on regulations that say there is enough money to take care of the requirements that the NRC has to make sure that that plant is radiologically clean.

At this point we're at a certain juxtaposition, because now we're jumping out of an operational life into a decommissioning life. They have submitted the PSDAR, which my associates and I are reviewing. It is not taken lightly.

I cannot guarantee to you that anywhere from 10, 20, 30, 40, 50 or 60 years from now, that there will be enough money. You will undoubtedly see that as the time goes foreword you will see the inflation factor built in to the estimated costs, but those of the nominal dollars.

It is my responsibility, and the staff that I work with, to make sure that the purchasing

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power of those dollars are going to be maintained such that they can take care of the costs associated with the decommissioning.

Right now there are regulations that say -- because when you forecast -- anybody can forecast any assumptions they want. There are limits to those assumptions. The licensee, as you have heard before, works with the NRC under performance-based regulations. They can make assumptions up to the extent of what the regulations allow. We at the NRC will review this for reasonableness. But there is nobody here that can stand here and tell you, "We guarantee you there's enough money."

Two other points to keep in mind. A licensee is responsible for the decommissioning as well as the associated costs -- the associated funding for those costs. They cannot escape that. I recognize that as a ratepayer or even as a State taxpayer, you could be called upon to make up for any shortage. I cannot tell you that that will not happen. But circumstances as we move forward in time is such that there are many possibilities to which I can only tell you would be speculative.

The only thing I can say right now is that the initial review that we have done so far, is that it is reasonable that the amount of funds that are in the decommissioning trust fund for CR-3 should be sufficient to not only take care of the

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requirements for the NRC, but for site-specific -- also for spent fuel management, as well as greenfielding.

Greenfielding is under the State Public Utility Commission jurisdiction, that is not under the jurisdiction of the NRC.

MR. WATSON: I had one thing to add to what Mike has to say, and that is, now that the site is in decommissioning the licensee is required to report to us on an annual basis the status of the decommissioning fund. So we are monitoring the decommissioning fund on an annual basis to ensure that amount of reasonableness continues throughout the decommissioning time period.

So, we are reviewing that annually. They submit it to us to make sure that those funds are growing at the proper rate based on the amount of work that is done also, and that the funds continue to be reasonable to complete the decommissioning.

MS. LOPAS: Ed, did you have more follow-up questions or comments?

MR. MERCER: Yes, I do. With that said, that decommissioning funds are available for a finite amount of work that's already been looked at, how much it would cost per decommissioning. And as time goes on, especially 50 years, you know some of the plant's component systems are going to be --

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have a reduced inspection, than ones that are certainly necessary.

So, there is an opportunity for -- I shouldn't say an opportunity for it. But one of the things that's really underestimated on the decommissioning up front is how much solar remediation will be required. That's a big unknown.

So my question would be, how does the NRC, you know, manage that or mitigate groundwater intrusion, radionuclides, exiting buildings that have been abandoned, things like that, to mitigate how much the additional cost would be.

MR. WATSON: Okay. One of the things that doesn't change because the plant is now permanently shut down, is that the utility or the licensee will still be required to continue to conduct its environmental monitoring program, and many of its programs, especially where they're protecting the environment, just as they did it during operations.

So, the environmental program will continue, we will continue to inspect their sampling, their groundwater analysis, the entire safety site of the -- I'll call it the safe -- making sure the site remains in a safe condition.

So from an environmental standpoint and the future for groundwater contamination, the monitoring will continue, the reporting to the NRC

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will continue, and should anything be found, then adjustments will be required to be made either in the decommissioning fund or to mitigate the environmental insult, is what I'll call it, so that stays under control.

So, from that perspective the environmental perspective, nothing really changes once the plant shuts down. They will continue to monitor the environment and the radiological environmental marketing program and other things throughout the entire time that they have a license with the facility.

MS. LOPAS: Anything else?

MR. MERCER: Two more quick things and then I'll get away from the mike.

MS. LOPAS: Go for it.

MR. MERCER: As far as fuel storage, would that be dry cask or wet storage?

MR. WATSON: Well, the licensee makes that determination. They are allowed to keep the fuel in the pools for the duration until they have a need to dismantle the pools. But most utilities will take the opportunity to remove the fuel to dry storage. I'd say most -- some haven't, but that's their choice, it depends on their schedule and their plans for the decommissioning.

MR. MERCER: Okay. And one last thing is the -- you know, from the time a plant is built

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and actually even before the plant is built, you know, there's a historical site assessment that's performed and documented and it's routinely updated.

With a plant that's going to be sitting around for 60 years before it's actually decommissioned, or even started decommissioning, you know, how is the historical site assessment managed to make sure that the updates are made so that 60 years from now with an aging workforce that is no longer there, you know, can go back to a document and say, okay, here's our areas that we were concerned with, for remediation so we can achieve lifeless termination (sic).

MR. WATSON: Right now the plant has a Final Safety Analysis Report, FSAR. The FSAR evolves into what we call the de-fueled safety analysis report. That becomes the document which they are required to maintain throughout the decommissioning up until the license termination plan replaces that document at the end.

So a lot of the requirements that are in the safety analysis report remain to ensure that they are continuing to do the things that are required, to make sure that the facility remains safe and environmentally sound.

MR. MERCER: I understand that DCR (sic) with the process control plan and things like that. But my question was, the historical site assessment,

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kind of like the 5075 G-file, that document.

MR. FERDAS: Yeah. They're still required to maintain that.

MR. MERCER: Yeah.

MR. FERDAS: So, it's what they've had documented that is reviewed on a periodic basis. And then going forward they still need to maintain that so that record is there for the future, and it's a requirement.

MR. MERCER: Is that an annual update or a five-year update?

MR. FERDAS: It's updated at the site. As things occur it would be updated.

MR. WATSON: And they have to keep that particular file, I guess, up until sometime after the license termination, so that remains available to them to look at the historical site assessment information in formulating the decommissioning plans and stuff that they have for the site.

MR. MERCER: Okay, thank you.

MR. WATSON: Thank you.

MS. LOPAS: Thank you, Ed.

Just a reminder for the folks. I'm going to go check the phone line real quick, and then I think, Harry, either you or your wife can come on up.

Does anybody on the phone want to make a comment? You just press star 1, and we're going to

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try to remind folks to speak up when they speak into the microphone, and the NRC staff, when you guys speak so the guys on the phone.

Okay. This is Gail Oates.

MS. OATES: I'm a little person.

MS. LOPAS: That's all right.

MS. OATES: Hi there. I'm Gail Oates, and my husband and I were both Engineers at the plant since '97. We retired in the last few years.

In reading the document my first question is, scheduling. Scheduling is a big part of a nuclear plant. And when I looked at the schedule that was brought out by Duke to you folks, it's taking 60 years and going back from there.

Why is that acceptable? It's never been acceptable in the nuclear industry I was in.

Comprehend my question.

MS. LOPAS: Is your question, why is it taking 60 years or why is this schedule set --

MS. OATES: Why is it acceptable to back up from 60 years, when in the industry that I was in you never did that.

MR. WATSON: Well, the regulations are very specific in that they allow 60 years.

MS. OATES: Indeed they do.

MR. WATSON: Okay. So based on that they have to be completed in 60 years. So their schedule reflects the fact that they plan to be

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completed in 60 years. Whether you work it forward or backwards you still come to the conclusion that this license will be terminated in 2073, which is 60 years from now.

MR. OATES: What about Humboldt Bay?

MR. WATSON: Humboldt Bay will be completed in 60 years also. Humboldt Bay was in safe store for about 30 years, okay, and then they've --

(Simultaneous speaking.)

MS. OATES: Okay. I made my point.

MR. WATSON: Okay.

MS. OATES: I just made my point. That is bothersome to me, very much bothersome to me.

I have probably a couple small things.

MS. LOPAS: Just remember to speak into the microphone.

MS. OATES: I'm sorry, ma'am.

I have a question about, if you do not approve the PSDAR, what are the points of our comments?

MR. WATSON: The points of your comments are that if there is anything that is pertinent that the public would have an input on regarding safety or any other information from the plant, that the NRC would not be aware of from the utility that you would think would be important for us to know.

MS. OATES: Thank you. That's a very

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important, very predominant thing for you to say to me. Thank you.

MR. WATSON: Okay. Keep in mind, we are the safety regulator, we are interested in the safe decommissioning of the plant. And so we would be concerned about any safety issues.

MS. OATES: Thank you very much. I'm going to back off. I have one small one.

What is the status of a permanent repository now? And I say that because I had the pleasure of Progress Energy sent me out to Yucca Mountain. The dad-gum thing was dying (sic).

MR. WATSON: I would refer you to your publicly elected officials. Well, the NRC has its people who --

MS. OATES: That was seven or eight years ago I went out there.

MR. WATSON: Well, I would encourage you to speak to your elected officials. It's important that the funding for -- to complete Yucca Mountain be put back in or the final repository, whatever the Government decides it is. And that is beyond our NRC control because we were also part of that defunding by the Government --

MS. OATES: And it's also DOT, I understand.

MR. WATSON: Yeah, I understand. But that is the course of action that you need to take

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in order to bring their attention to this important issue.

MS. OATES: Thank you, sir. I appreciate all of your responses.

MS. LOPAS: All right. Harry, do you want to come up next?

MS. OATES: Here comes big mouth.

MS. LOPAS: This is Harry Oates.

MR. OATES: I've got a couple questions. Before I even ask you a question, are there any Citrus County Commissioners on the phone or in attendance?

(No response.)

MS. LOPAS: No one on the phone.

MR. OATES: The silence is beautiful.

Okay, first question. Who oversees the decommissioning fund in the nation?

MR. DUSANIWSKYJ: Yes, that's me.

MR. WATSON: That's financial.

MR. DUSANIWSKYJ: Michael Dusaniwskyj, an Economist at the NRC.

The decommissioning trust funds are outside of the control of the licensee. They are held by a bank. I am going to assume at this point that it's probably Bank of New York Mellon. I'm not sure about that because of the 104 nuclear trust funds, 84 of them are held by the Bank of New York Mellon.

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And again, they are outside the control of the licensee. It is the responsibility of the custodian of these funds to make sure that they are held in a fashion that conform to NRC regulations. Certain things such as, you cannot invest -- in this particular case, the trust funds cannot be invested in Duke instruments, like stocks and bonds. They also cannot be invested in other licensees that have nuclear facilities.

There are also certain foreign investments that are restricted, in addition to which there is a standard which is based on the Federal -- FERC, Federal Energy Regulatory Commission, which states that investments should be done on what's called a prudent investor standard.

All these things come into play such that there is a fund manager whose responsibility is to make sure that they are watching the funds, they are watching the markets, and that they move the funds back and forth in such a way that -- not much different from, let's say, how a 401(k) or a thrift plan or any other type of pension fund would be held.

I recognize that this can be held in some manner subjectively. But the important point that I want to make sure that you understand is that it is not under the control of Duke. It is held by their custodian. And again, I'm making that

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assumption that it's the Bank of New York Mellon.

If it's really important I can find out.

MR. OATES: Thanks for being so specific. First of all I want to thank you all for being here, number one, and doing this, because it's very important for us to ask questions of our Government because that's which you represent.

And the other thing I think we've been remiss in is that we have not recognized the two people assigned responsibility for decommissioning Unit 3, Phyllis Dixon and Terry Hobbes, are in the back of the room if you have any questions for the specifics related to Duke. I'm sure they'll be glad to tell you anything you'd like to know.

And I'm not a Duke employee. I'm the ex-Design Engineering Manager out there, so I have a little bit of knowledge about that plant.

So if the decommissioning fund is being managed, what is its rate of return? And if we continue as a country to go down the path of the submittal from Duke of \$751 million to decommission the plant and it's estimated actually to run at 861 million, that's kind of \$100 million difference before we even ever start the ball rolling.

And secondly, it doesn't relate to the fact that the cost of construction is skyrocketing. They're going to have to construct as much as they have to destruct. So I'm really really concerned as

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a Citrus Countyian, and retiree and as a ratepayer, that I know that these numbers don't work, and I know eventually my rate's going up. I know that.

And I just don't understand who's managing this fund. We've got 104 of these bad boys operating out here across this country. When we shut them all down because the Government right now isn't supporting building them, there's no newcomers putting into the fund, it's all the old-timers, when they're gone they're gone.

Now, how are we going to afford to clean this mess up? It's the Nuclear Regulatory Commission and the Government's responsibility to fund this. Not us. We've been paying into it. It's frustrating. It's got to stop. Somewhere the expense has got to stop. And it's not the utility, it's not Duke. It's what happened to this country's finances. And we're letting it happen in front of us.

Sorry, I'm lecturing. The question is, how do we pay for it?

MR. DUSANIWSKYJ: I recognize that on first examination there is obviously a difference between the amount of money that's in the fund and the amount of money it's going to cost to pay for this -- or the expenses that are associated with decommissioning.

Keep in mind that this is not going to

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be something that's going to happen overnight. This is something that is going to take 60 years under the present plan. Keep in mind that Duke is always free to change this plan, such that as long as they wind up decommissioning within 60 years it is theoretically possible that sometime in the future circumstances may avail themselves such that they choose to decommission and complete within some shorter amount of time.

So keeping that in mind, and recognizing that this is not an overnight event, there is a principle in economics which is under the long-term has been held steady since 1929, that despite all of the potential headaches that I can understand you are frustrated with, recognizes that inflation and interest are different.

We recognize in the regulations that we are expecting interest rates to be greater than inflation. Will you have individual years where that is not true? Yes. But under the long-term it is a recognized principle in economics that interest is always greater than inflation.

MR. OATES: So, how are we doing on the fund today?

MR. DUSANIWSKYJ: That's what I'm going to answer for you. The intention that you have to understand is that in the regulations we recognize a 2 percent real rate of return for forecasting

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purposes. We take what is in the fund today, we recognize that the site-specific cost estimate will be ratcheted up, because as Bruce pointed out to you, we will review this every year, and we will take a look at how much is in the fund related to how much expense has been taken out for that particular year.

We recognize that we are expecting a certain amount of inflation, which will be ratcheted up in the interest -- excuse me -- in the expected costs into the future.

We also recognize that interest rate should be higher than what the inflation is of that particular year. Over the long term it is a reasonable assumption.

So in order to make up the difference of why you see such a difference is the fact that even though there is as expected expense, as I pointed out to you before, we are not interested in the nominal dollars, but rather the purchasing power of these dollars as we move forward in time. And this is captured by the fact that we expect interest to be greater than inflation.

And again, I want to point out to you that by the time all of this is done, you will probably hear dollar amounts that are substantially greater than the amount of dollars that are being quoted today. But it is offset by the fact that the

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trust fund will increase at a rate greater than inflation, such that it grows over time, with compound interest, to make up that gap that you see right now in the dollars as you look into the PSDAR.

MR. OATES: And you divide that by 104 for the number operating --

MR. DUSANIWSKYJ: No, no, no. Keep in mind that each nuclear reactor has its own separate trust fund, it is not one bucket, it is 104 buckets.

MR. OATES: Gotcha. Thank you.

MR. DUSANIWSKYJ: You're welcome.

MR. OATES: Last question. Independent spent fuel storage. Independent spent fuel storage. Will that be capitalized and charged on my bill or will it now be a decommissioning expense since we're not going forward with any more fuel?

MR. WATSON: This is Bruce Watson. Yeah, the regulations require that there is a separation between the funds for decommissioning and the funds for managing spent nuclear fuel. And so they are separate funds, there are separate trust funds for those and so they are not --

MR. OATES: They are not covered under decommissioning?

MR. WATSON: They are not covered under decommissioning, they are a separate fund. Okay?

MR. OATES: Well, why don't we just leave it in the pool and leave it there for 100

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years?

MR. WATSON: Because the regulations require the license be terminated in 60 years.

MR. OATES: I suggest we put the fuel back in the pot and leave it in the containment building. Let's put the fuel back in the pot and leave it in the containment building. That's the most serious place it could be protected. I know that spent fuel out there, it's got an aluminum building around it for God sakes. Put it back in the pot and store it.

MR. WATSON: We appreciate the comment, but that's not what we would consider the maximum safety for the fuel for the long-term.

MR. OATES: It's not? It's good to operate it, it was good to make power.

MR. WATSON: Well, let me remind you that the operating license was for a finite time, originally 40 years, and then somebody extended that by another 20. So it was never intended for the fuel or the plant to be there for perpetuity.

MR. OATES: So let's just wait another 60 years.

MS. LOPAS: Okay, Harry, thank you.

MR. OATES: Thank you.

MS. LOPAS: We have two more people signed up and then we'll go back out for seconds and thirds, whatever. So, let's go to Gene Costa.

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Gene's here?

MR. COSTA: I am.

MS. LOPAS: Hi Gene.

MR. COSTA: Hi. I am Gene Costa and I'm a retired Research Scientist, but not in this area unfortunately. But I am interested in the technical aspects of this decommissioning.

I'm concerned really about the last question, and that was my thought to begin with.

Where do we stand on the spent fuel rods? Have they been stored here since 1970? My God, how many thousand do we have here? Does anybody know?

MR. FERDAS: All fuel used from the operation of the plant is being stored in the spent fuel pool. It's our policy not to comment on how many spent fuel rods are in at any given operating - - at any plant. But they do have -- all the history of the plant's fuel is in the spent fuel pool.

MR. WATSON: So they are safely being stored in the spent fuel pool at this time.

MR. COSTA: And my question really is, how safe is it? If someone, for example, accidentally or deliberately crashed a plane into it, would it be protected from that, do you think?

MR. FERDAS: Ever since the 9/11 attack the agency has taken measures to enhance mitigation capability at all of the plants throughout the

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country. There have been studies done, you know, as you alluded to, and based on that we have made requirements at all the plants to have additional strategies in place to mitigate any sort of consequence. But I can't get into those details due to the security nature of them.

MR. COSTA: But the gentleman ahead of me just said that they're stored in an aluminum building. My God.

MR. OATES: Don't worry about what I said. I know exactly what goes on out there. It's beautifully safe. Beautifully.

MR. COSTA: From the impact of a plane flying into it?

MR. OATES: Absolutely.

MR. COSTA: We have his word.

MS. OATES: And I agree.

(Simultaneous speaking.)

MR. OATES: The Nuclear Regulatory Commission is very serious about that.

MR. COSTA: Was there another comment?

MR. WATSON: No. But we're waiting for your next question.

MS. COSTA: Oh, those were my questions. I'm really concerned about that.

And how long do you think -- I guess you can't answer this question because you're not allowed. Yucca Mountain has been defunded, is that

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what you were saying?

MR. WATSON: At this point that's the current status of it from the Federal Government.

MR. COSTA: And so there's no place for it to go? So it's all going to be staying here?

MR. WATSON: Right.

MR. COSTA: Okay, thank you.

MS. LOPAS: Okay. Thank you, Gene. And next up we have Brian Moore.

MR. MOORE: Good evening. Thank you very much for the opportunity. I'm a resident of Spring Hill and Hernando County. And we -- most of us in Hernando County are recipients of power from some other source, not Duke Energy. But I'm here because of our concerns, mostly safety concerns, and the cost concerns of our fellow Floridians. And I have a number of questions, so I would appreciate brief answers so I can get all my questions addressed.

Number one, who made the decision to store the rods instead of moving them?

MR. FERDAS: Really, as we discussed through some previous questions and answers, there is no place to put spent fuel at this point except on the -- within the facility that used it. So it's either through storing it in your spent fuel pool or it's using dry cask storage, which stays in the footprint of the facility.

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MR. WATSON: So, let me just clarify it. The fuel has to stay in the spent fuel pool after it's offloaded from the reactor core for a number of years in order for the decay heat to meet the requirements to be put in dry storage, so it's not immediate after they shut down that they can do that, so.

But the decision on whether to keep it in the pool or move it to a dry storage situation in an interim spent fuel storage facility installation, is the utilities.

MR. MOORE: Okay. Has the Congressional delay put our communities at a greater danger since we have to have the spent fuel rods remain here in Crystal River?

MR. WATSON: There is presently about 72 spent fuel dry storage facilities in the country. They are being stored safely. They are expected to be stored safely in these installations for the indefinite future.

Obviously the final repository would be the most ideal place to have these spent fuel -- to have the spent fuel stored, and that's truly up to the Federal Government to make that decision and to provide the facility. They committed to that with the Atomic Energy Act in 1954.

MR. MOORE: But I mean the fact that they were looking at a permanent location and now

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there seems to be kind of a -- we're paralyzed now as to where and when and if we'll have a permanent place. So therefore these 73 other locations are temporary locations.

So in a sense, the fact that we recognize the need for a permanent location means that it will be safer there than here; right?

MR. FERDAS: No, that doesn't necessarily mean that.

MR. WATSON: No. It's true. But I would encourage you, like I said before, to contact your elected representatives in the House and the Senate and let them explain -- let them know of your concerns so that they can make this a priority to get this done.

MR. MOORE: Right. Well, in a way I'm doing that right now, through you.

It's also in the newspaper articles, they said that the average costs of decommissioning is between 3 and \$400 million. And the cost here is twice that, \$862 million; right?

MR. WATSON: Uh-huh (affirmative).

MR. MOORE: And the fund now has \$600 million; is that correct?

MR. WATSON: I'll let Mike explain that.

MR. DUSANIWSKYJ: I'd like to remind everyone here that the NRC's responsibility is to make sure that this plant is safely decommissioned

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such that there is no residual radiation of any kind in it.

One of the biggest problems that has always been maintained in the popular press is that there's never been a distinction made between that responsibility and the full greenfield costs.

The NRC is only interested in radiological decontamination. And as of now the last number that we had with something like \$778 million in the fund. This is subject to fluctuation due to the markets and other factors.

But the point I want to make sure you understand is that in the newspapers they are usually taking into account the costs for radiological decontamination, which the NRC has jurisdiction and responsibility for. But the greenfielding, which we'll add on top of that, which is sometimes used in the newspapers, doesn't make any distinction between what the NRC requires and what the full decommissioning may be.

The part that deals with anything like greenfielding, which means that that plant would be brought back to a field, is an additional cost which is borne by the State of Florida.

MR. WATSON: Those typical costs are the subject of the public -- of the State Public Utilities Commission under their purview, not ours.

MR. MOORE: So, how much is in the fund

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now?

MR. WATSON: Mike, it's what? How much is in the fund?

MR. MOORE: How much is in the fund right now?

MR. DUSANIWSKYJ: \$778,565,000.00.

MR. MOORE: Would we have had a bigger savings of costs or cost overruns if -- well, maybe you've already answered this question -- if they had established Yucca Mountain, for example. Would this have expedited the transfer and would our costs have been lowered?

MR. WATSON: Let me take a shot at answering your questions, and we kind of mentioned this before. The decommissioning funds are for decommissioning. Spent fuel management funds are for managing the spent fuel.

Obviously if the utility didn't have to go through the interim step of having an on-site storage facility and were able to, say, directly transfer the fuel to a permanent repository, then I believe there would have been some cost savings for the utility.

Now, most utilities have been in litigation or other agreements with the Department of Energy over these costs, and so I don't think all these costs will be passed onto the ratepayer. So part of that cost will be absorbed by the -- maybe,

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I don't know, I can't -- there's lots of agreements that we're not privy to. It's the Government's responsibility for the fuel.

MR. DUSANIWSKYJ: There are three things I want to make sure are crystal clear to everyone in this room. The NRC does not make policy as to what will be the final decision made on all spent fuel. That is the part of the Department of Energy.

Any utility that has a nuclear power plant has been paying into the fund for what eventually should have been Yucca Mountain, approximately one-tenth of one penny for every kilowatt hour.

Hold on a second. Kilowatt hour or megawatt hour?

UNIDENTIFIED SPEAKER: Kilowatt.

MR. DUSANIWSKYJ: One-tenth of one penny was already built into the rates such that it would be paying for Yucca Mountain. That number has gone into quite a high number. That is outside of the jurisdiction of the NRC.

There was a second point I wanted to make and I regret that I've lost it.

MR. OATES: It's not the first thing that goes.

MR. DUSANIWSKYJ: Unfortunately by the time you realize it, it doesn't matter.

MR. WATSON: I guess it would be the

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interface with DOE. Our part of the spent fuel management is to make sure it is continued to be managed safely until it's removed to the permanent repository.

MR. MOORE: He made my point.

MR. OATES: Eloquently.

MR. MOORE: And this is sort of out of left field. But does the decommissioning impact upon the state of Florida's attention to this advanced fee law at all?

MR. WATSON: I'm not familiar with the advanced fee law. This must be something that's a state requirement that we would not be privy to. I would assume this is somewhere from your --

MR. MOORE: Well, we've had to pay for -- or the consumers have had to pay a certain fee for power over and above the power they received to cover the possible construction of new plants. And, we were not entitled to receive a refund or at least maybe just a partial refund.

MR. WATSON: Yeah. That's not what the NRC regulates. That would be your Public Utility Commission.

MR. MOORE: Yeah, I understand that. But, okay, let's see here.

Do you foresee any -- or do you have any experience of serious problems during the decommissioning period that could be substantial and

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very problematic to a community?

MR. WATSON: I think the answer to that would be, no. I can speak from experience that at Connecticut Yankee the infrastructure around the site was such that they were not able to remove some of the materials by more conventional methods, like rail, so they used a lot of trucks. So the local community was concerned about the number of trucks.

And so I think they worked out an agreement on the infrastructure on the roads and the actual timing for the trucks to be going through the local community to go to the low-level waste disposal facility.

That's the only kind of impact, and I wouldn't consider that significant because it was just more of a logistical issue than a safety issue. It wasn't a safety issue by any means. So that's the only one I can think of that was an impact on the local community where the local community had concerns about a decommissioning activity. Okay?

MR. MOORE: Well, for example, Crystal River is right on the coast, right on the edge of the water. And we just saw, several years ago, what happened in Japan with the plant that was right on the water.

And so, you know, if there was a tsunami or a hurricane or terrorist attack or something that could impact upon the facility in an unforeseen way,

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is it more precarious during a decommission?

MR. FERDAS: I think --

MR. WATSON: Go ahead.

MR. FERDAS: I think I know where your question is going, and correct me if I'm wrong, is -
-

MR. MOORE: Yeah.

MR. FERDAS: I would say that it would be the station as an operating unit, it's more of a concern. However, procedures are in place, there is emergency preparedness programs, security programs that are in place to mitigate those type of events.

At a shutdown plant a lot of the risk is dissipated, and particularly when you start dealing with older fuel such as, in this case Crystal River, you know, their fuel has not been irradiated for, I think it's three to four years already. And your potential for any sort of fuel damage becomes less and less and less because the energy in the fuel is not as great as if you were in an operating status or newer fuel that was put into the spent fuel pool.

MR. GRATTON: In addition to that the staff did do a comprehensive review of the event at Fukushima and applied the -- there are certain lessons learned and recommendations that are going through the process of being applied to all the plants, including Crystal River, and those actions are being evaluated for Crystal River now that it's

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in decommissioning.

And so, we are considering those events for Crystal River and we'll take the actions that are appropriate.

MR. MOORE: Okay. One final comment then, and that has nothing to do with the questions but just personally. I am opposed to nuclear power. And I've been a candidate federally, for federal positions in Congress and also statewide.

Three years ago I ran for governor in the Democratic primary and I was opposed to nuclear power and the use of it in the United States. 201,000 people voted -- I lost, but there -- possibly some of them were very concerned about the use of nuclear power in our country and in our state, and I would just like to leave that thought with you.

MR. WATSON: Thank you.

MS. LOPAS: Thank you, Brian.

So at this point that's all I have for folks signed up, so we can go back out for seconds and thirds.

Senator Dudley, do you want to come up?

REPRESENTATIVE DUDLEY: Representative.

MS. LOPAS: Representative. I'm sorry.

REPRESENTATIVE DUDLEY: Thanks for the promotion. That was a very fast promotion. Thank you.

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Dwight Dudley, State Representative.

I just want to go back to the kind of delineation between decommissioning versus greenfielding and anybody who has any information regarding the costs associated with that.

Now, is the greenfielding -- I mean they're decommissioning presumably is that the destructure of a plant and removal of it, presumably; right?

MR. WATSON: Well, let me give you a definition.

REPRESENTATIVE DUDLEY: Okay, thanks.

MR. WATSON: The decommissioning is the radiological decommissioning of the plant. So all the radioactive components, the residual radioactive contamination is already removed to acceptable limits. That does not mean that the area where the plant is going to be will just be a green field. It means that the structures may be still left in place, but they are all -- at that point there's no radiation issues, the license will be terminated.

This has been the case in a number of utilities that have decommissioned. The one that comes to mind most of all is Trojan, up in Oregon, where they decontaminated and left all the structures left. And they elected to then greenfield the plant after the license was terminated, so the cost for that was part of the

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monies granted to them through their Public Utility Commission. So, decommissioning doesn't necessarily mean greenfield.

REPRESENTATIVE DUDLEY: Okay. So it's a lot worse than I thought. Because in other words, you know, I don't know how you make things not radioactive. So that's done. And then there's presumably the greenfielding which is one would think kind of the condemnation or the taking apart of the plant that's there.

MR. WATSON: Let me clarify a couple things for you.

REPRESENTATIVE DUDLEY: Sure.

MR. WATSON: Like I said, the decommissioning is the radiological removal of -- decommissioning of the plant. So all the radiation and radioactive materials have been removed.

REPRESENTATIVE DUDLEY: Right.

MR. WATSON: Those materials have been removed and disposed of in a -- that are required to be in a low-level radioactive waste repository, okay, so the plant is no longer radioactive and we can terminate the license once they meet our criteria for that.

Secondly, most of these properties are under the ownership of the utility, and most of these properties are generally very valuable properties to the utility. You've got to keep in

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mind that these are normally a cooling water source, there is the infrastructure for the grid, some of the sites already have other generating capacity or facilities on the property, so this property is generally very valuable to the utility.

And as I said before, a number of the utilities that have had their reactors decommissioned eventually will greenfield it and then build a new facility on that, a new generating facility. An example of that is at Rancho Seco. They still have the containment structure still sitting there, but they also built two new fossil plants on that land. The same thing with Humboldt Bay, they have eight combustion units there.

REPRESENTATIVE DUDLEY: And how many years did we have the eyesore in those examples, are those 20, 30 years?

MR. WATSON: Well, the one at Rancho Seco's still there. We terminated license in 2009. But it's their determination, their decision on when they are going to demolish it, and is based on their use of the funds in accordance with their Public Utility Commission.

Trojan, since we terminated the license, has greenfielded the facility. But they did that with our oversight because there was no radioactive material there. So, it's really up to them. They recycled the metals from it, clean materials from

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it, and it's really their choice.

So, like I said, the decision on the final state of the facility or the license from the site is really up to the utility and the state Public Utility Commission because there are costs involved in there.

REPRESENTATIVE DUDLEY: Sure, exactly. And that's one of the crucial initials in that if -- that presumably is a capital cost if you deconstruct something or demolish it and then it's back to the taxpayers, it's back to the ratepayers, it's back to the consumers paying for that, and that's a great concern.

I'm sure that you have no cost estimates. I don't know if anybody here from Duke has any cost estimates for --

MR. WATSON: There is a line item in the PSDAR on that.

REPRESENTATIVE DUDLEY: Yeah, I'd love to hear about that. It's kind of a surprise.

MR. DUSANIWSKYJ: We are still reviewing the PSDAR so I can't necessarily quote you the numbers. But they did take into account that recognizing the amount of money that's in the fund today, they have told us what they expect to be for radiological decontamination, they have told us what they think it's going to cost for spent fuel management, and they've also told us what they

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expect to be greenfield in costs, those things that we just discussed now.

REPRESENTATIVE DUDLEY: Right.

MR. DUSANIWSKYJ: The initials reviews indicate that there seems to be enough money for it, but again I need to have a little bit more time with it to go through all the details. But the initial review shows that there appears to be enough funding for it.

REPRESENTATIVE DUDLEY: Again, this is part of crystal-balling; right? I mean there is no way that anybody knows 60 years in the future.

MR. DUSANIWSKYJ: I agree with you --

REPRESENTATIVE DUDLEY: Right.

MR. DUSANIWSKYJ: -- but it's not a complete shot in the dark, as Bruce pointed out. We are reviewing these funds each and every year as we move forward until this license is terminated.

REPRESENTATIVE DUDLEY: Okay.

MR. DUSANIWSKYJ: But I do want to make sure that you understand that all of these costs have been thought through by the licensee, and it's the staff at the NRC that's going to go through this to see for reasonableness.

You're absolutely correct, 60 years from now I can't tell you what it's going to be, but we have to keep it within the realm of reasonable.

REPRESENTATIVE DUDLEY: Sure.

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MR. DUSANIWSKYJ: If something comes through, we'll have to deal with it at that time. In 60 years regulations could change, returns on investment can change, all of those things can change.

REPRESENTATIVE DUDLEY: Sure.

MR. DUSANIWSKYJ: But --

REPRESENTATIVE DUDLEY: We won't be here to witness in all likelihood.

MR. DUSANIWSKYJ: Well, yes. But, it is not out of control, it is always being looked at.

REPRESENTATIVE DUDLEY: If you could please just clarify one particular part. Are you saying that Duke has done a bunch of estimates regarding or they have submitted estimates on the greenfielding and it's anticipated -- are you saying something different than your colleague with regard to that cost?

MR. WATSON: In the PSDAR there are funds the decommissioning, the radiological decommissioning.

REPRESENTATIVE DUDLEY: Right.

MR. WATSON: They provided a line item for the decommissioning of spent fuel -- excuse me -- the management of spent fuel, and there's a line item in there for greenfielding the site. Okay. So the greenfielding is beyond our NRC.

REPRESENTATIVE DUDLEY: That would be

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back to the ratepayers.

MR. WATSON: Right.

REPRESENTATIVE DUDLEY: And during this whole process, I mean it's anticipated that it's a 60 year wait to maybe change the landscape here a little more.

Is there any likelihood or chance that that could be accelerated, where they would say, well, you know, we've decided we want to do it quicker? Is that a whole new licensure process to -
-

MR. WATSON: They are allowed to decommission the plant within that 60 year requirement. They may choose --

REPRESENTATIVE DUDLEY: During that 60 year requirement.

MR. WATSON: Yeah. But my point, even if in safe store, they can continue to do some dismantling. But it is the licensee's decision on the rate in the schedule that they're going to use to decommission.

Now, I can tell you that on past precedent a lot of these single-unit facilities have been in a safe store state for a number years, and then the utility has determined, for whatever reason, to go ahead and decommission the site well below -- before the 60 year requirement, but it's their decision.

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Like I said, we're only there to make sure that the activities at the site are conducted safely. So, they will notify us if they're going to do any significant change in the decommissioning activities so we can make adjustments to our inspection schedule and make sure we're here to observe the work to make sure it's done safely.

REPRESENTATIVE DUDLEY: Thank you. And presumably somebody has a -- okay, great, thank you. I appreciate that. Thank you very much.

MS. LOPAS: Gail, you want to come up?

MS. OATES: Yes, please.

MS. LOPAS: Is there anybody after Gail that didn't get a chance to speak yet?

Oh, okay. Behind you. So, Gail, if you can keep it brief, we're going to go to the woman behind your husband.

MS. OATES: Okay. I'm Gail Oates, I'm a retired Mechanical Engineer at Progress Energy.

You were talking about greenfielding. And my question is, in your definition of greenfielding does that include also removing the reactor vessel heads and the generators that are on-site?

MR. WATSON: No. In decommissioning that would include the removal of all the radioactive components from the site, which would include the reactor vessel, the reactor vessel head,

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the generator, yes.

MS. OATES: So it's included in the budget item?

MR. WATSON: Yeah, all of it. Okay?

MS. OATES: It's not clear in the budget that's in the report, is all.

MR. WATSON: It is removal of all the radioactive components and the residual radioactive contamination at the site.

MS. OATES: The only reason I say that. Other plants that have decommissioned don't include that in their budget reported to the NRC; been there done that. Okay. Thank you very much.

MS. LOPAS: Okay. Thank you, Gail.

Next, come on up.

MR. WATSON: Please come on up.

MS. LOPAS: Introduce yourself.

MR. WATSON: We have a little over 10 minutes left with tonight's session.

MS. LOPAS: If you have a tricky name, spell it out.

MS. CASEY: Not a tricky name. Emily Casey, concerned citizen. I just want to know where the low-level waste that's being removed now, or in the near future, where is it going to be disposed of? Is it a local place that it's being disposed of? And I'm talking about just the material that's in there that's being taken out now.

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I wanted to know, is it locally, is it in the state, is it being transported out of the state? Where is it going?

MR. WATSON: Presently there are of number of low-level waste disposal sites in the country. I believe Florida is part of the Southeast compact. I think Barnwell, South Carolina still accepts some waste from Florida. There are some other options.

No? Not anymore? No? Okay. Don't accept South Carolina waste now or whatever?

UNIDENTIFIED SPEAKER: No, Atlanta compact waste which is South Carolina, New Jersey and Connecticut.

MR. WATSON: Okay. So that changed. But I haven't been following that too closely.

But, there are two other facilities that I can think of right off the top. There is the waste consulting services, I think it's called WCS in West Texas, has just opened in the last couple of years to receive low-level radioactive waste. And there is a facility in Utah operated by Energy Solutions, and they also accept certain types of low-level waste and mixed waste, I believe, in their facility out in Utah.

So there are sites which will take the radioactive waste as long as the utility demonstrates it meets their waste acceptance

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criteria, and I'm sure they're doing that today because they're shipping waste from the site.

So, there are places for the low-level waste to be disposed of that are licensed by those dates and are designed for that purpose.

MS. CASEY: So there's not one in Florida?

MR. WATSON: Not that I know of.

MS. CASEY: Okay. How is it going to be transported, by rail, or truck, or what?

MR. WATSON: Well, I don't know the specifics for Duke Energy. But I can tell you that most utilities ship waste by truck and by rail, and in decommissioning some of the large components have gone by waterway, by ocean or by barge. Okay?

MS. CASEY: Okay, thank you.

MS. LOPAS: All right. Thank you, Emily.

Anybody else that didn't get a chance to speak? Okay. Sorry, Harry, we've got to get everybody in.

MR. OATES: That's all right, get them all in.

MS. LOPAS: Please introduce yourself.

MS. PRICE: I'm Sally Price, I'm an Inglis Commissioner elected. I'm not here to represent them per se.

But, most of my questions could be

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answered by just one word if you all will limit it to that so I can try to ask them all.

It's scary when I look around this room and everybody that I see in here when this thing is done, this mission is done, I don't think any of us will be alive except maybe a couple. So we're leaving this to our kids and our grandkids, so it's something that really needs to be thought through really carefully.

I've lived there, I'm pre-BC, I was before the barge canal in pre-FPC. I lived there before the Florida Power came in. I've been an environmentally interested person all that time.

A couple of the questions that I would like to ask. Is some of it stored in that dry cask storage, or are dry cask, are they some of both or some of -- I don't need a long answer. Are they stored in both places?

MR. FERDAS: It's all in the spent fuel pool.

MR. WATSON: It's all in the spent fuel pool.

MS. PRICE: Okay. Is the spent fuel pool, having no idea in the world what that looks like, doesn't have a cover over it, is it a hole in the ground, what is it?

MR. FERDAS: It's a building with a -- you know, basically in layman's terms, it's a big

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swimming pool with 50 to 60 feet of water in it.

MS. PRICE: Something's over it?

MR. FERDAS: Yeah. It has a building over.

MR. WATSON: Yes.

MS. PRICE: Okay. I just read one time in the paper that if we ever had a tsunami here it described the water from that spent fuel pool going over the top of the hospital, which is a three-story building. That's always been on my mind.

MR. WATSON: Well, I don't think this site is in a tsunami area.

MS. PRICE: We just had an earthquake down between Key West and Cuba. And you know, maybe with like a big category hurricane or something, that has been on my mind.

I thought I heard you all say earlier that greenfielding, the cost would be paid by the state.

MR. WATSON: Well, it's regulated by the state.

MS. PRICE: It's regulated, but people will then be paying for the greenfielding?

MR. WATSON: However the state chooses to do its business.

MS. PRICE: So in 50 years our great-grandkids will probably be paying for this. This really is scary to me.

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MR. WATSON: I don't know that they'll be paying for it since the funds are apparently put away today to grow to take care that.

MS. PRICE: Okay. Well, somewhere between here and there somebody's going to be, I'm sure, eating some more cost.

Is there a plant that has been totally decommissioned? How many? You can give me just...

MR. WATSON: We have totally -- excuse me. The utilities have totally decommissioned 11 reactors. All of those have been decommissioned fully, the licenses have been terminated on them.

MS. PRICE: Is there an average? What is the least amount of time it took to decommission one of these things, so we don't drag this out?

MR. WATSON: It takes 7 to 10 years.

MS. PRICE: How many?

MR. WATSON: It typically takes 7 to 10 years to do the decommissioning.

MS. PRICE: So you can decommission one in 7 to 10 years.

Is the 60 -- 50 for the Crystal River, is that normal or is that just --

MR. WATSON: It's what the regulations allow, so what ever they choose to do.

MS. PRICE: Okay.

MR. WATSON: Some of the ones in the past have gone into what we would call de-con or

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prompt remediation -- or prompt decommissioning where they go ahead and begin the decommissioning right away after they've put the plant in a safe condition.

Part of that 7 to 10 years is also putting the plant in safe conditions so you can decommission it, to make it safer for the workers to do the disassembly work.

MS. PRICE: Right. I'm just a person who is very very very concerned with the citizens of this state having to pick up the cost of all of this stuff. I have had two ex-husbands out there, so I kind of know a lot about the cost and the waste and the things that happen.

And I'm really concerned that this is going to pass on down when you have something that is supposed to be 40 years and then it's going to take 60 years to get rid of it, is it really the smart way to go?

And the other thing is, this is just for concern for our citizens. We are the ones that have to suffer from the effects of the plant. If anything were to happen in this decommissioning, will they be using any local people for hire to help do this or previous power company employees?

That's probably not you-all's question, but it's something to put out there.

MR. WATSON: You're right, it's not our

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issue. But they typically will hire local, use some of their own people and also use some of the local unions and other labor markets to get good people who were good and qualified to do this type of work.

MS. PRICE: I'm just really really concerned of what the people -- I've had to suffer the costs through the Public Service Commission passing everything right on down every time they ask for it.

And also the fact that we have to deal with the nuclear side of this decommissioning after we've lived with the plant this long and the cost.

Thank you all very much for coming.

MR. WATSON: Okay. Thank you, Sally.

MS. LOPAS: Thank you, Sally.

Last call, other people that haven't spoken yet?

(No response.)

MS. LOPAS: Okay. Harry, let me check on the phone real quick.

Phone folks, star 1. We're going to hear for one last person and then I think we're going to close out the meeting. So, hit star 1.

And, Harry, do you want to come up and make some final points?

MR. OATES: I have just one last question.

MS. LOPAS: Go for it.

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MR. OATES: Having had a recent experience in California with decommission it's -- and there is a question coming, so let me finish my premise first.

The latest docket information on the Humboldt Bay came in that they started out estimating that that nuclear power plant of 65 megawatt BWR, up in the northern county of Eureka, California, started off at \$110 million to take that plant down and put it in a radiologically decommission state.

Right now the latest submittal of the NRC has it estimated at 940 million. So if you look at the ratio between a 65 megawatt plant and a 1000 megawatt PWR that's been operating for 30 years, to believe what's in this submittal, regarding the costs, is not even feasible.

The number you're talking about to greenfield this site -- I'm not talking about Sound of Music -- I'm talking about making it restored back to the Citrus County's property, is \$219 million. And if anybody in this room believes you're going to rip -- look at the picture behind you. If anybody believes that that reactor building's coming down or any one of those structures is coming down for \$219 million, you're nuts. You're nuts.

This decommissioning fund is a ruse.

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It's a ruse to the country. And I'm not talking about Citrus County anymore, I'm talking about the 100 other reactors that've got to be shut down. You guys have got to figure this out. It's no different than our national budget, guys. You're the Government. You own it. Fix it. Figure it out. It ain't keeping up with the cost to tear these things down, guys.

Now the last question I have, and there is a question. During the operation of this plant the oversight of the Nuclear Regulatory Commission, the Institute of Nuclear Power Operation, there was so many different people that monitored the utility during the operation of this unit.

Now you guys are telling us that the only thing you're concerned about is the radiological condition of this plant. The County and the State is concerned about a hell of a lot more than that.

And so all we're asking is, when you review the submittal take the budget into consideration for us that have to live here, and recognize that decommissioning is more than just making sure the fuel is finally dispositioned. It's about every chunk that's out there, all of the radiological issues; water, everything's got to be fixed.

And this budget ain't going to do it.

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And we're all being fooled by it. That's my final comment.

MR. WATSON: Well, I appreciate your comment. I do want to clarify a couple issues for you.

Humboldt Bay, which is in Northern California, the estimates to complete the decommissioning beyond the radiological requirements are the requirements from the state of California, not from the NRC, and that is what is driving the actual costs of that decommissioning.

So you can't compare megawatts to megawatts on that particular issue because you would have to look at the state requirements, and the state requirements for the decommissioning at Humboldt are extremely more stringent or more requirements. I won't say they're better by any means, but there are more requirements on Pacific Gas and Electric. So, you really can't compare one with the other.

So, I'm just saying there are other requirements that go beyond the NRC requirements to decommission a site, and those are taken into account by your state Public Utility Commission.

So, like I say, we are in the process of -- we do inspect Humboldt Bay. We are in the process of reviewing their licensed termination plan which describes a number of actions that they plan

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to do for completing the remediation of the site. Many of those are not a requirement by the NRC, but they are included in their cost estimate.

MR. OATES: It's only a heads up for the County and the State. That's my point that I was using.

MR. WATSON: Right. We also have 11 other sites that have been decommissioned that have been within reasonable assurance that the decommissioning funds met those requirements for the radiological decommissioning, so.

MR. COSTA: I have a question on that.

MS. LOPAS: All right. Last question and then we're going to close it out. Go ahead.

MR. COSTA: Thank you.

MS. LOPAS: Do you want to introduce yourself again, please?

MR. COSTA: Gene Costa.

MS. LOPAS: Thanks, Gene.

MR. COSTA: I'm a resident of Homosassa, just down the road.

That raises the question, particularly even before he brought it up I had this in mind. Of those that you have decommissioned, how far off was your ratio in terms of the cost, your estimated cost for decommissioning and your actual costs?

Can you give me an idea or give us an idea of how close you were?

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MR. DUSANIWSKYJ: We do have those costs back at the office. I regret that I don't have them in my memory on this.

But you have to keep in mind that the time value of money in the times in which these plants were decommissioned are not the same as today and they certainly would not be equivalent to whatever's going to be done in the future.

Each of these cases, such as Trojan, and some of the others that I'm thinking of off the top of my head, were decommissioned prior to the termination -- prior to the requirements that they stop operating.

Trojan, as I recall, and this is going to be off the top of my head, there was a substantial amount missing in the decommissioning trust, simply because they didn't have the time to put any of these funds into that trust by the time that they declared there was going to be a decommission. They did have to go back to the state, the licensee did get a rate increase in order to cover for those decommissioning costs.

I would like to remind everyone here, the NRC does not regulate commerce, we regulate safety. And I understand your concerns. But I must point out to you that all of these concerns that you've been mentioning about money has to go back to the Public Utility Commission of the state of

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Florida.

Now, again, the requirements of the NRC is such that we want to make sure that there is a sufficient amount of funds to decommission the plant safely. This is what the PSDAR is supposed to be telling us. And I keep reminding everyone that it is not an event that is done overnight. It's going to take up to 60 years.

It is always up to the licensee that they have a choice that if they wish to do all that decommissioning in less time they have the opportunity to do so, and of course they would have to submit to us the papers and the requirements to say that, yes, it can all be done reasonably, we have sufficient reason to believe that there is sufficient funding.

So whatever changes take place we don't just monitor each year as we go forward into the future, but we will take into account any changes in their plan such that no matter what they have up to 60 years, but not longer, but they always have the option to do it in less time.

MS. LOPAS: Okay. Thank you, Gene.

And before I send it back to Bruce to close it out, it sounds like you have a lot of common. I suggest submitting the written comments. You have until March 5th. Right? Do it online or just send a letter, and don't forget the meeting

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feedback forms. And, I'll hand it back to Bruce.
Thank you all.

MR. WATSON: All right. I'd like to thank you for attending tonight and taking your time to provide us comments. The staff will evaluate the comments and take them into consideration as we review the PSDAR.

So, given that, I think we had --

MS. PRICE: Excuse me. Is there somewhere where we can listen to these comments? I tried to write fast.

MR. WATSON: Gretchen is going to be producing a transcript and so the transcript will be made available on our website. So you will be able to look up the written transcript. Okay?

MS. PRICE: Thank you very much.

MR. WATSON: So, with that in mind, the meeting minutes or the transcript will be posted on our website for you to look at in a few weeks when we get it back from the transcription service, and it will be posted on our website.

And so I want to thank you again for coming. You provided some good insight and your concerns, and hopefully we did answer some of your questions, and appreciate your attendance tonight. Thank you very much.

(Proceeding concluded, 9:06 p.m.)

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