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UNITED STATES NUCLEAR REGULATORY COMMISSION'S
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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ADVISORY COMMITTEE ON REACTOR SAFEGUARDS (ACRS)

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SUBCOMMITTEE ON SITING

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OPEN SESSION

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FRIDAY,

AUGUST 20, 2010

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ROCKVILLE, MARYLAND

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The Subcommittee met at the Nuclear Regulatory Commission, Two White Flint North, Room T2B1, 11545 Rockville Pike, at 8:30 a.m., DR. DANA POWERS, Chairman, presiding.

MEMBERS PRESENT:

DANA POWERS, Chairman

J. SAM ARMIJO

DENNIS C. BLEY

MICHAEL T. RYAN

DESIGNATED FEDERAL OFFICIAL:

NEIL COLEMAN

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

(8:27 a.m.)

OPENING REMARKS AND OBJECTIVES

CHAIRMAN POWERS: The meeting will now come to order. This is the second day of that meeting of the Advisory Committee on Reactor Safeguards Subcommittee on Siting. I am Dana Powers, Chairman of the Subcommittee. Members in attendance are Sam Armijo, Michael Ryan. And we're told that Dennis will join us. We also are joined at the table by our consutlant John Flack.

The purpose of the meteing is to continue our examination of the MOX fuel fabrication license application and associated NRC safety evaluation report. Again, the Subcomittee is in the business of gathering information and licensing relative to issues and facts to forumlate proposed positions and actions as appropriate for deliberation by the full ACRS.

Neil Coleman is the designated federal official for this meeting.

Let's see. We will close the meeting for proprietary information shortly.

A transcript of the meeting is being kept. And the portion of that transcript dealing with the open portions of this meeting will be made available.

It is requested, of course, that speakers first identify themselves and speak with sufficient clarity and volume so they can be readily heard.

I don't have any requests for making statements from the public for this part of the meeting. And I don't have any opening comments to make this morning. Do any of the other members have comments they would like to make?

(No response.)

CHAIRMAN POWERS: We will proceed with the meeting. And I think our first step will be to close the meeting.

(Whereupon, the foregoing matter went off the record at 8:29 a.m. and reconvened in closed session. Open session was reconvened at 4:52 p.m., as follows.)

16. SUBCOMMITTEE DELIBERATION

CHAIRMAN POWERS: Let's go on the public record now. We need to do two things. We need to talk to them about what to present to the full Committee. And we'll give you faint guidance on that because I can't tell you very much what to do there, but I'll do my best. And then we need to discuss draft positions members think that should come forward on this.

MR. COLEMAN: Dr. Lyman, this is Neil Coleman. I had promised to tie you into the meeting, give you a chance to place some remarks on the record. Sorry we missed you. We ran a little later than according to the schedule. But feel free to send us a letter. If you need additional details, you can contact me at (301) 415-7656. Thank you.

CHAIRMAN POWERS: Okay. I think we can --

MR. COLEMAN: We are in open session. We are technically in open session here.

CHAIRMAN POWERS: We are not just technically. We are officially in open session. The schedule for the full Committee is two hours, of which some substantial period of time has to be allowed for a presentation, I mean, questions by the Committee.

I am ill disposed to give you much guidance on this because it's not much time to present all of this. It seems to me that if I were MOX Services, that I would formulate a presentation that said, "Here is what our facility will do," much like you did at the beginning of this. But you might want to be a little more elaborate on that because most of the members of the current ACRS were not members of the ACRS during the CAR. Okay?

And then I would in a fairly summary

fashion say that in developing this facility, we have addressed the questions posed by the ACRS at the CAR, maybe give a capsuled description of how you have handled those things. But you just simply don't have the time to go to the depth you did, but, for instance, you can certainly say, "Look, in the area, we have gone beyond the Defense Nuclear Safety Board" and you have this strategy, which leaves us an open position that resolves questions that are raised in DPO and things like that. And try to treat it in a fairly capsule fashion, hitting the high points of what you talked about here, but it's going to have to be fairly truncated and whatnot.

For the staff, you need to explain what you did in your review. And in general, your presentations here have been just fine. I mean, they have been lovely. But to the extent you can say, "Look, we certainly looked at the documentation, but if you can give us some sense of the magnitude of the additional work you did, what you were comparing against," I think that helps the Committee understand better how much you have done. You don't have to be too maudlin about thousands and thousands of hours, but you can say, "Okay. We certainly went into their offices. We looked at the additional documentation on

these items."

And, again, hitting the high points of those things that we have covered today, perhaps reinforcing, you know, "We had these variety of questions that I am going to talk about especially -- I mean, we viewed the whole damn thing, but here are the ones that I am going to talk to you about."

And Committee members can ask questions. And you can practically assure that the digital instrument system that Mr. Rahn discussed, he's going to get additional questions on it. I mean, he did a marvelous job there. Mike did a tremendous job on his presentations as well and whatnot.

I am going to try to hold down the discussions on the ISA as a regulatory entity, but I will fail miserably on that. But your objective is not to defend the fact that that is a regulation. Your objective is to say, "Here is what we've done."

Now for the members, we have two chores. The staff is asking for us to write a letter that comments on the quality of the review. The Commission is asking us, can this facility be built and operated with no undue risk to the public health and safety? Okay?

So we have a twofold job. I mean, our

letter is going to go to the Commission. So we have to cover both aspects. So I will ask if members have any particular issues that they think should be addressed.

MEMBER BLEY: Framed in that vein, I think probably not. I have a few other comments, but I think in that vein, I have been impressed with the level of detail and the digging. there were some things on fire, but I am pleased they're doing the things I didn't know about when we had those discussions they told us about later that I think will address some of my concerns.

CHAIRMAN POWERS: John, did you have any points?

MR. FLACK: Well, no. I mean, I think that the approach they took, I mean, the ISA was very impressive. The summary, of course, is very impressive, thousands of pages of information there.

I think the four pillars and the strategies they used was really nice. I like the way they laid that out, you know, how they addressed these issues using these four pillars and the strategies.

I think the lessons learned from the French, I mean, that really made --

CHAIRMAN POWERS: That certainly helps.

MR. FLACK: Yes. I think you can also look at that as being supportive of the whole process.

CHAIRMAN POWERS: Yes. My tendency is certainly to acknowledge that information comes from the French as the knowledge base they have, but they still have to build a facility here and run it here.

MR. FLACK: Right. There are differences.

CHAIRMAN POWERS: They get information that way, and they get lessons learned. But I don't want to portray this thing as a carbon copy of somebody else's facility. You carry a lot of baggage when you do that and whatnot.

MR. FLACK: Well, the red oil, I guess the red oil thing, we'll have to close the meeting if they want to get into details on that, but we're trying to keep the meeting open, I guess, the full Committee, at that point.

CHAIRMAN POWERS: My tendency is, but if we get the questions that have to be answered in a closed meeting, we can close the meeting. I mean, there is just no question about that. But my tendency -- I mean, I would gear my presentations for an open meeting.

MR. FLACK: For an open meeting.

CHAIRMAN POWERS: And then if we have to

ask questions, we will close it and do that separately.

MR. FLACK: Yes.

CHAIRMAN POWERS: Sam?

MEMBER ARMIJO: Well, first of all, I think there's been excellent work by the applicant and the staff on a very complex process and engineering job. About the only place where I think there's a big ticket safety issue that should be addressed, whether it's in the regulations or not in the regulations, is the issue of external fire of a large, deliberately set fire by virtue of the aircraft impact.

And I don't think anybody builds a facility with walls nine feet thick for the fun of it. So somebody must have had in their minds protection against something like an aircraft impact. That would be a localized fire, massive fire, with very little warning and assessment of the capability of the MOX facility to perform or shut itself down, protect its people I think should be done. But other than that, everything else within the process I think has been covered very thoroughly.

MEMBER RYAN: I will add my thanks for extremely well-prepared briefings by both the applicant and the staff. It really has been a very

productive two days. And we have covered an awful lot of ground. So thank you for that.

Let's see. A couple of things. I think if maybe the conversation about the waste was sharpened a little bit along the lines of the points we talked about so that handoff is a little bit clearer to the full Committee, it would be helpful. So I think that's one.

And I guess, just for my own interest, a few more sentences here on the radiation protection program and how that's going to work would be helpful. I am going to guess that, for the most part, external exposure is not a huge hill to climb, but it really boils down to the internal dosimetry program and led by plutonium, which is hard to detect. And it's a tough radionuclide. If you do have an intake, do you even quantify it as a dose? So a little bit, just a few lines on that, might be helpful to understand.

And if you want to just add that into your industrial safety discussion or something along those lines, that would be fine. And, again, I repeat my recommendation to think about the combination of fixed-area air samples, BZAs, and mobile CAMs and all that other stuff and how you would stay ahead of that tough-to-monitor situation.

So thanks very much. I appreciate it. And, again, my compliments on a wonderful two days.

CHAIRMAN POWERS: Well, certainly we have progressed substantially since we did the construction authorization. And certainly I think the approach to red oil is robust. And you have gone well beyond the DNFSB. And I think that certainly addressed our questions.

You have a much more mechanistic treatment of HAN, and his issues I think is well-founded. I am still concerned a little bit about plutonium precipitation in relation to that. I suspect that can be resolved by looking at some of your modeling.

And so maybe we can look at that report. I know the staff reviewed it. And so if we could look at that, we could resolve that issue.

Criticality safety is pretty classic here. It looks like it's followed pretty well, kind of expectations. And, to be honest with you, you have gone a little beyond what I expected because you're not so heavily reliant on double contingency. You have gotten more with your four-pillar approach. So I think you are in good shape on that.

Fire analysis in the facility is certainly treated and following industrial standards. I think

you need to resolve this issue of extinguishing the fire. And it sounds like that is going to happen as you interface with the fire services there at Savannah River. So I am not very concerned with that.

The external fire, I think because you have a good way to interrupt the system, that, in fact, you can respond to external fires in a much more deliberate fashion. I think at some point you've got to lay that plan out. But I am not very concerned about it.

I do like what you have done on interrupting services. And it's an interruption of your ability to transfer material across the fence line. I'm concerned for the ACRS. So it does not hurt to bring that up and talk, say some stuff about that because, I mean, it sounds like you've got that worked out pretty well.

Again, I'll add I thought the presentations were vastly better than I anticipated them to be and appreciated every bit of the amount of effort, including the backup slides. I was glad you included the backup slides. It helped a lot because, I mean, you can read. Some people don't think the ACRS members can read, but we can --

PARTICIPANT: If it's in big print.

CHAIRMAN POWERS: -- if you don't mind us moving our lips when we're doing it. But it's been time well-spent. And I think everybody concerned, I think we've covered the material.

And all I can say is good luck in the Committee meeting because I can't tell you what to anticipate. I am just at a loss on what to predict. So bring your dancing shoes so you are agile and whatnot, but understand that most of the members are going to have very little exposure to it.

I mean, this is going to be the first time they have seen this. So in a choice, be more informative than worrying so much about the details of the regulations and whatnot like that, more strategic in how you reviewed. Rather than the details of the review, you know, a little higher level than we covered here is how I would tend to bias myself. If people want to plunge into the details, I'm pretty sure you can and whatnot.

That's the best I can do for you.

MR. FLACK: Just a question on the details is that, of course, if you have backup slides, it's going to have to be some that are open to the public and some that are closed to the public. So they're going to have to --

CHAIRMAN POWERS: Yes. We will have to work that out in some way. And the best thing to do is pass out what's open and allow if we have to go into the details, we'll do that via words and stuff like that. We can work that issue.

MR. CAMPBELL: I just have one question. I guess the site was analyzed for aircraft crash. But, as I understand, the comment was a deliberate --

MEMBER ARMIJO: I am talking about the fire from all of the -- I don't know the results of your impact analysis on the building. I don't know if that was done, but fully fueled, large aircraft has the Pentagon fire. Is a fire located right up against your building --

MR. CAMPBELL: But you are talking like in the area of a security assessments base.

MEMBER ARMIJO: In the area of where your diesels were, will your people be --

MR. CAMPBELL: If you had kind of like a fully engulfing fire or something like that.

MEMBER ARMIJO: Yes. It's similar to what the designers are doing on new plant designs. They assess that. And, of course, they go into a lot of detail.

CHAIRMAN POWERS: But it really is not

something that we are writing about this time.

MR. CAMPBELL: Oh, that's right. I just --

CHAIRMAN POWERS: We are writing on 10 CFR 70.64 and a couple of letters.

MR. FLACK: But having said that, there is actually a foot in part 50 under "Production Reactors" because the reprocessing piece is really under 50. We're looking at this under 70. But, yet, you have this other thing here. And then you have a reprocessing facility is coming our way, which may require additional --

MEMBER ARMIJO: I am just thinking of --

17. CONCLUSION & RECOMMENDATIONS

CHAIRMAN POWERS: Our question that we have to answer is, can this facility be built and operated with no undue risk to the public health and safety? And, I mean, that is the question the Commission has been asking us. Security is a different question.

MR. CAMPBELL: Right.

CHAIRMAN POWERS: And we will answer that question when it is posed to us. Okay? But yes. I mean, thanks a bunch, guys. That was more than I expected.

MR. GWYN: I am just sharing for my colleagues here, who actually did all of the work and all, but I know they do appreciate the professional interactions that went on the last few days. It was very well -- it may be easy to have the discussions on them.

CHAIRMAN POWERS: I look forward to seeing it operating and whatnot. And I think we will --

MEMBER RYAN: Site visit.

CHAIRMAN POWERS: You go visit the site. If I'm going to visit the site, it's going to be in the fall or the spring. It ain't going to be this month. At this point I am going to adjourn the meeting unless there is any other comment to be made.

(Whereupon, the foregoing matter was concluded at 5:11 p.m.)