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NUCLEAR REGULATORY COMMISSION

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Plant License Renewal Subcommittee

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U.S. NUCLEAR REGULATORY COMMISSION

In the Matter of Amgen Energy Co. LLC

Docket No. 50-0219-L12 Official Exhibit No. Exh. 16

OFFERED by: Applicant/Licensee Intervenor

NRC Staff

IDENTIFIED on 9/25/07 by W. J. [unclear] N/A

Action Taken: ADMITTED REJECTED WITHDRAWN

Reporter/Clerk [signature]

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SECY-02

1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION

3 + + + + +

4 ADVISORY COMMITTEE ON REACTOR SAFEGUARDS (ACRS)

5 MEETING OF PLANT LICENSE RENEWAL SUBCOMMITTEE

6 + + + + +

7 TUESDAY,

8 OCTOBER 3, 2006

9 + + + + +

10 The meeting was convened in Room T-2B3 of
11 Two White Flint North, 11545 Rockville Pike,
12 Rockville, Maryland, at 1:30 p.m., Dr. Otto Maynard,
13 Chairman, presiding.

14 MEMBERS PRESENT:

15 OTTO MAYNARD	Chair
16 GRAHAM B. WALLIS	Member
17 WILLIAM J. SHACK	Member
18 SAID ABDEL-KHALIK	Member
19 J. SAM ARMIJO	Member
20 MARIO BONACA	Member
21 OTTO L. MAYNARD	Member
22 JOHN D. SIEBER	Member

23
24
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1 ACRS STAFF PRESENT:

2 LOUISE LUND

3 FRANK GILLESPIE

4 HANS ASHER

5 RICK SKELSKEY

6 DONNIE ASHLEY

7 MICHAEL MODES

8 JIM DAVIS

9 KEN CHANG

10 MIKE HESSLER

11

12 ALSO PRESENT:

13 MIKE GALLAGHER

14 PETE TAMBURNO

15 AHMED OUAOU

16 TERRY SCHUSTER

17 FRED POLASKI

18 PAUL GUNTER

19 RICHARD WEBSTER

20

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C-O-N-T-E-N-T-S

AGENDA ITEM	PAGE
Opening Remarks	4
Staff Introduction	6
Oyster Creek License Renewal Application	
Michael Gallagher	8
Fred Polaski	95
Tom Quintenz	116
SER Overview	
Donnie Ashley	122
Michael Modes	124
Aging Managment Program Review	
and Audits	125
Confirmatory Analysis of Drywell	
Hans Asher	145
Public Comments	184
Adjourn	

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

1:32 P.M.

CHAIRMAN MAYNARD: This meeting will now come to order. This is a meeting of the Advisory Committee on Reactor Safeguards, Plant License Renewal Subcommittee. I am Otto Maynard, Chairman for this subcommittee meeting. ACRS members in attendance are Graham Wallis, William Schack, Mario Bonaca, Jack Sieber, Said Abdel-Khalik and Sam Armijo. Our ACRS consultant, John Barton is also present. Cayetano Santos with the ACRS staff, is a designated official for this meeting.

The purpose of this meeting is to discuss the license renewal application for the Oyster Creek Generating Station, the Associated Draft Safety Evaluation Report and other related documents. The Subcommittee will gather information, analyze relevant issues and facts and formulate proposed positions and actions as appropriate for deliberation by the full committee. The rules for participation in today's meeting were announced in the Federal Register on October 2nd, 2006. ACRS meetings are conducted in accordance with the Federal Advisory Committee Act. They are normally open to the public and provide opportunities for oral or written statements from

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1 members of the public to be considered as part of the
2 Committee's information gathering process. I would
3 like to emphasize that these comments should be
4 limited to issues associated with the Oyster Creek
5 Generating Station License Renewal Application.

6 We will hear presentations from
7 representatives of the Office of Nuclear Reactor
8 Regulation, the Region 1 office, and the Amergen
9 Energy Company. We have also received requests for
10 time to make oral statements at today's meeting. Mr.
11 Paul Gunter of the Nuclear Information Resource
12 Service and Mr. Richard Webster of the Rutgers
13 Environmental Law Clinic will make their statements
14 following the formal presentation by the Applicant and
15 staff.

16 If anyone else in the audience would like
17 to make a statement, please notify Mr. Cayetano Santos
18 during the break and we will try to accommodate your
19 request during the public comment portion of the
20 agenda. We have received one written comment from a
21 member of the public regarding today's meeting. This
22 comment was provided by e-mail from Mr. Bill Hering,
23 dated October 3rd, 2006. Copies have been distributed
24 to the subcommittee. A transcript of the meeting is
25 being kept and will be made available as stated in the

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1 Federal Register notice. Therefore, we request that
2 participants in this meeting use the microphones
3 located throughout the meeting room when addressing
4 the subcommittee.

5 Participants should first identify
6 themselves and speak with sufficient clarity and
7 volume so that they can be readily heard. Due to the
8 number of people, we do have an overflow room next
9 door. The audience can see the slides in that room.
10 So if seating is not available in here, next door
11 there should be some seating. Also due to a large
12 number of people, I request to turn your cell phones
13 off or at least put them on vibrate or your pagers on
14 vibrate to minimize disturbance in the meeting.

15 I will now proceed with the meeting, and
16 I call upon Ms. Louise Lund of the Office of Nuclear
17 Reactor Regulation to begin.

18 MS. LUND: Okay, thank you. Good
19 afternoon. My name is Louise Lund. I'm the Branch
20 Chief of License Renewal Branch A in the Division of
21 License Renewal. Beside me is also Frank Gillespie,
22 our Director for the Division of License Renewal. The
23 staff has conducted a very detailed and thorough
24 review of the Oyster Creek Generating Station License
25 Renewal Application which was submitted in July of

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1 2005. Mr. Donnie Ashley, here to my right, is the
2 Project Manager for this review. He will lead the
3 staff's presentation this afternoon on the Draft
4 Safety Evaluation Report. In addition, we have Mr.
5 Michael Modes, who is our team leader for the Region
6 1 inspections that were conducted at Oyster Creek.

7 We also have several members of the NRR
8 technical staff here in the audience to provide
9 additional information and answer your questions. As
10 a result of the review, five open items were
11 identified which will be discussed in the
12 presentation. This also resulted -- our review
13 resulted in the issuance of 108 formal requests for
14 additional information. I know the ACRS has been
15 interested in the number of questions that have come
16 out in the reviews in the past. We believe part of
17 that reduction is as a result of the generic aging
18 lessons learned report. This application was
19 submitted using the draft GALL report that was issued
20 back in January 2005. However, it was reconciled with
21 a September 2005 version of the GALL report.

22 The GALL has certainly helped with the
23 review by providing a roadmap. The staff at Oyster
24 Creek provided excellent support for onsite audits and
25 inspections that were conducted and also the

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1 headquarters review through the conference calls and
2 numerous meetings that we've had. And would you like
3 to make some opening remarks?

4 MR. GILLESPIE: Only what we tried to do
5 and you're going to see when Donnie comes on is we're
6 going to try to conserve the Committee's time so that
7 we can kind of focus on questions and answers. We do
8 have a large number of slides but we're going to try
9 to go through them on the staff presentation very
10 quickly and not duplicate what you're going to hear
11 from the licensee. So we'll make some adjustments
12 because we know, at least in this case there's a
13 number of technical issues. This is the one plant
14 that's the first one to have us focus on this
15 containment shell question which is also a topic of
16 litigation.

17 So you'll also find the staff being very
18 careful and trying to be careful of their words at his
19 point relative to saying anything too definitive about
20 specific findings because this is not the final SE.
21 This is the SE with open items. So with that, I'm
22 going to turn it over to Mike Gallagher from Exelon.

23 MR. GALLAGHER: Okay, good afternoon. My
24 name is Mike Gallagher and I am the Vice President of
25 License Renewal Projects for Amergen and Exelon. For

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1 worst areas above it.

2 MEMBER WALLACE: That doesn't say very
3 much.

4 MR. TAMBURNO: So it was no better.

5 MEMBER WALLACE: It was no better, right?

6 MR. GALLAGHER: Yeah, so it was the same.

7 But there you would expect it to be similar because
8 the sand, the wet sand -- there was sand throughout so
9 the sand was contacting that. What we're saying is
10 below that interface, it would be less -- the
11 corrosion should be less significant because of the
12 concrete that's embedded in it.

13 MEMBER ARMIJO: And that's a debate,
14 right? That's an ongoing debate.

15 MR. GALLAGHER: Well, we think we're
16 consistent with the guidance that's in the GALL and --

17 MEMBER WALLACE: You replaced the seal,
18 did you?

19 MR. GALLAGHER: We put that seal in.

20 MEMBER WALLACE: You put it in afterwards.

21 MR. GALLAGHER: Yes, this is the
22 corrective action.

23 MEMBER WALLACE: Okay.

24 CHAIRMAN MAYNARD: I'd like to move on
25 with the presentation.

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1 MR. GALLAGHER: Yes, sir.

2 MEMBER SIEBER: I'd like to ask, beyond,
3 in our package the last slide you have is Slide 28.
4 You're referring to backup slides which should be made
5 part of the record. So -- okay.

6 MR. GALLAGHER: Yeah, any slide we show,
7 we'll put in.

8 MEMBER SIEBER: Okay, we'll I'd like to
9 have copies of this.

10 CHAIRMAN MAYNARD: Yeah, I want to remind
11 everybody, we still have the staff's presentation
12 after this and we also have public comment time. I
13 want to make sure we get a chance to get through this
14 and we'll see where we need to come back to.

15 MEMBER WALLACE: I'm sorry, Mr. Chairman,
16 I'm responsible for this. I want to really know
17 what's going on though, I'm afraid, so I have to ask
18 these questions, because the presentation doesn't tell
19 me unless I ask them, but I'll try to be brief.

20 MR. GALLAGHER: Okay, so leaving the
21 embed, the drywell shell in the sandbed region was
22 then coated. The coating that was applied was
23 application of a three-coat epoxy coating system
24 consisting of one coat of primer and two coats of
25 epoxy coating. Each coat was visually examined and

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1 dry film thickness measurements were taken to assure
2 the proper coating thickness was achieved. The
3 coating is a two-part 100 percent solid epoxy coating
4 which is less susceptible to the degradation and moist
5 environments. The coating was tested to qualify for
6 emersion surface coating applications such as tank
7 linings. The surrounding environment has stable
8 temperature conditions resulting in lower thermal
9 stresses being applied to the coating and therefore,
10 provides close to an ideal service environment which
11 will result if a very long service life.

12 MR. BARTON: Do you have any idea how long
13 that coating would be good for, the epoxy coating?

14 MR. GALLAGHER: We can have Ahmed answer
15 that question.

16 MR. OUAOU: There were some estimates done
17 by our engineering and it varied from 10 years to 20
18 years. Recently we spent a lot of time talking to the
19 vendor about the qualification of the coating and the
20 feedback we're getting is that there is no guarantee
21 for that coating, whether it is 20 years, 15 years,
22 whatever. However, you can rely on your inspections
23 to give you an indication whether you're approaching
24 the end life of the coating. So the rigor inspection
25 is the gauge as to when we think that coating is to

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1 get replaced or repaired.

2 MR. BARTON: And the inspections are how
3 frequent, every 10 years?

4 MR. OUAOU: The inspection, we inspect
5 every fueling outage. We look at it basically every
6 refueling outage.

7 MR. OUAOU: Every other refueling outage.

8 MR. GALLAGHER: Our current program, and
9 I'll go into this, our current program which we do --
10 there's 10 bays. We do two of the 10 bays every other
11 refueling outage and going forward, we're going to
12 insure we do 100 percent of the bays every 10 years.

13 MEMBER SIEBER: And what's your cycle
14 length, two years?

15 MR. GALLAGHER: Two-year refueling.

16 MEMBER ARMIJO: So it's every four years
17 you inspect two out of 10 bays?

18 MR. GALLAGHER: That's the current
19 program. Going forward, it will be a minimum of three
20 every other outage to insure that we cover the you
21 know, 10 bays.

22 CHAIRMAN MAYNARD: Do you have a criteria
23 that when you find degradation that you expand or you
24 increase your frequency or expand the number you look
25 at?

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1 MR. GALLAGHER: Yes, Ahmed?

2 MR. OUAOU: Yes, in the future, we'll be
3 performing the ASME IEE inspections for the coating.
4 Which requires that if you perform an automatic
5 inspection, you look at the coating and you find
6 defects, you have to assess the other areas that you
7 looked at if you're doing a sampling. So if we do
8 find degradations, we would look at other areas in
9 accordance with our corrective action process.

10 CHAIRMAN MAYNARD: And you have a criteria
11 as to what constitutes degradation?

12 MR. GALLAGHER: Yes, in the inspection
13 program.

14 MR. OUAOU: This is Ahmed. We do have
15 criteria. We're using the criteria right out of the
16 WE that's looking for blistering and flaking and
17 cracking, et cetera, degradation of the coating.

18 MEMBER WALLACE: This slide would benefit
19 from numbers. If the first bullet said .74 and the
20 second bullet said .69 or something, it would help.

21 MEMBER SIEBER: Yeah, it sure would.

22 MEMBER WALLACE: Can you tell us what
23 those numbers are, what the shell thickness needs to
24 be and what it is? Are you going to tell us the
25 numbers?

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