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Plant License Renewal Subcommittee

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Date: Tuesday, October 3, 2006

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U.S. NUCLEAR REGULATORY COMMISSION
In the Matter of AMERICAN ENERGY CO., LLC
Docket No. 50-0719-LR Official Exhibit No. 30
OFFERED by Applicant Licensee Intervenor
NRC Staff Other
IDENTIFIED on 1/2/07 Witness/Panel n/a
Action Taken: ADMITTED REJECTED WITHDRAWN
Reporter/Clerk pw

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
25
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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

21

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

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1 Ahmed, the filter?

2 MEMBER WALLACE: That's what plugged?

3 MR. GALLAGHER: The filter.

4 MR. OUAOU: As Mike mentioned previously,
5 the drain itself was full of sand as part of the
6 design to avoid --

7 MEMBER WALLACE: It was filled with sand.

8 MR. OUAOU: It was filled with sand to
9 avoid draining the sand from the sandbed region but as
10 a result of water intrusion in the area, you have
11 fines that mixed with the sand. You don't have the
12 drainage and that was why it was plugged.

13 MR. GALLAGHER: Okay, so to get to your
14 question on the next slide, which is Slide 12, excuse
15 me, Slide 11, this is the reactor cavity seal area.
16 And this -- this shows a cross section of that. This
17 slide is useful to show the water leakage path. And
18 basically as we indicated, the water leakage was
19 through defects in the reactor cavity liner and worked
20 its way into the trough area. Again, this projector
21 is light but I think your slides are a little better.

22 The water worked its way -- or leaked into
23 this trough area and some of this trough area there
24 was low spots originally in the trough area and so the
25 water which leaked through here, leaked down and

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1 spilled over into the air gap.

2 MEMBER BONACA: Now, two questions. One,
3 how sure are you that that's the source of water since
4 this is being contested? You've tested this water?

5 MR. GALLAGHER: We're very sure that
6 that's the source of the water. Other --

7 MEMBER BONACA: That's an issue.

8 MR. GALLAGHER: Other -- during the
9 corrective action, early on, there was other sources
10 that were pursued such as the refueling seal and
11 things like that and it was determined that the
12 majority was through this other --

13 MEMBER BONACA: And then the question I
14 had was, the seal is supposed to be preventing water
15 penetration but if you have cracks in the liner you
16 are defeating the design objective. And the question
17 I'm raising is because whatever you do to control
18 corrosion, to do whatever you can do to monitor, you
19 still are defeating the design objective and fitting
20 water through that gap. I mean, is that an initiative
21 to try to fix those cracks or replace the liner?

22 MR. GALLAGHER: Absolutely, what we --

23 MEMBER BONACA: Otherwise the root cause
24 of all this is not going to go away. And I mean, the
25 goal objective of inspecting those bellows and seals

1 is defeated by definition. Simply you have cracks and
2 they're allowing water to come down.

3 MR. GALLAGHER: When we go into our
4 program and talk about what we've done in the past and
5 what we're committing to do for the future, we put
6 strippable coating on the reactor cavity liner before
7 we fill it with water during refilling outages. And
8 that's been very, very effective to eliminate the
9 water from this air gap.

10 MEMBER BONACA: You still have been
11 getting water in these containers.

12 MR. GALLAGHER: Okay, we can talk about
13 the containers now, if that's --

14 MEMBER BONACA: No, that's okay, you're
15 going to talk about it later.

16 MEMBER SHACK: Well, let me go over this
17 strippable coating now. You have put this -- I mean,
18 every time you fill this with water, that's -- part of
19 your procedure is to apply the strippable coating
20 first?

21 MR. GALLAGHER: We have made a commitment
22 that going forward, every time we fill the reactor
23 cavity, we will put strippable coating.

24 MEMBER SHACK: You haven't done that every
25 time since the problem started?

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1 MR. GALLAGHER: We've done it, I think,
2 every time except two outages. And --

3 MEMBER SIEBER: The answer is, no, they
4 haven't done it every time.

5 MEMBER BONACA: That's right.

6 MEMBER ARMIJO: Was that just oversight or
7 error or was it a --

8 MEMBER SHACK: A procedural failure?

9 MR. GALLAGHER: Pete, can you answer that
10 question?

11 MR. TAMBURNO: This is Pete Tamburno,
12 Senior Mechanical Engineer. There were two outages
13 during the time frame that GPU owned the plant that
14 the strippable coating was not put on and I believe it
15 was during a time when the plant was announced to be
16 decommissioned.

17 MR. GALLAGHER: But, you know, for
18 clarity, we have made a commitment and we put that in
19 our license renewal application that we will put the
20 strippable coating on.

21 MEMBER SHACK: Now, when you --

22 MEMBER BONACA: Yeah, go ahead.

23 MEMBER SHACK: When you have the
24 strippable coating in place and you're -- I trust
25 you're still monitoring for leakage, do you get any

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1 leakage with the strippable coating in place? You're
2 still getting leakage?

3 MEMBER BONACA: Yes, they do.

4 MR. GALLAGHER: We have had -- when we
5 went through our commitments on this -- the current
6 commitments, current licensing basis commitments, we
7 couldn't find any current documentation on the
8 monitoring of the water leakage. We've talked with
9 people that have been in the sandbed and they have
10 said that, you know, there is no water in the sandbed
11 when they go in there to do the visual inspections on
12 the coating. So we believe that our corrective
13 actions have been effective, which I'll go in to tell
14 you what we've done comprehensively to insure that the
15 water is going down the trough drain and not into the
16 air gap.

17 CHAIRMAN MAYNARD: I'd like for us to let
18 the licensee go ahead, I think trying to give a
19 history and --

20 MR. GALLAGHER: Yeah, we have a pretty
21 good presentation.

22 CHAIRMAN MAYNARD: We can come back to
23 these -- anything that is not answered, we can come
24 back to but I want to leave time for us to do that.

25 MR. GALLAGHER: And I think we'll hit on

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1 previous the sand could stay damp and that's what
2 happened. That's how you got the corrosion without
3 necessarily draining at all.

4 MEMBER SIEBER: That's right.

5 MR. ASHER: I will address your question
6 about the operation of water. We've heard about this
7 a long time back even during the Dresden containments
8 and we asked the same questions that you are asking to
9 the applicants. Okay. And the general answer was
10 that it will operate and it won't corrode anything.
11 I said no. I'm not ready to believe that. So what we
12 resulted that did, the earlier one, and I saw a
13 separate case too that we asked them to do the UT
14 measurements from upper areas through which the water
15 is continuing to the sand bed area. Okay. And a
16 number of applicants said unless they see no activity
17 of water at all during the entire life, then we will
18 say that is not necessary. But that we have seen any
19 water leakage from their refueling cavity or any other
20 areas collected in the sand bed area, then the whole
21 spherical area and cylindrical area are suspect. In
22 this case also, at Oyster Creek also, they are
23 required to do the UT in the upper area of the shaft.

24 MEMBER WALLIS: So the UT is the real
25 check rather than looking in the buckets.