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To: Andrea Lee; Bill Bateman; Farouk Eltawila; Jack Strosnider; Keith Wichman
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Subject: CRDM SCORECARD

NRR / *NRR* *RES* *NRR*

For my own sanity, I have been tracking the Bin 1 & 2 plants that did not provide initial Bulletin responses that were acceptable. The attached file provides a summary of the initial responses and follow-up information, shortcomings of the plans, what we would Order (if it comes to that), and an indication of the next steps for each plant.

Let me know if you have any comments or questions.

Allen

CC: Jacob Zimmerman; Lawrence Burkhart

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STATUS AND CONCLUSIONS REGARDING LICENSEE PLANS FOR
VHP NOZZLE INSPECTIONS

October 18, 2001

Plants with Cracking/Leakage History and High Susceptibility Plants

DC Cook Unit 2

Plans:

Remote visual examination & ECT/UT @ next RFO (January 19, 2002). RFO date changed since Bulletin response submitted.

Staff Conclusions:

Delay of examination beyond December 31, 2001, is not acceptable.

Action to be Ordered:

Licensee must perform an inspection by December 31, 2001.

NEXT STEP:

Complete technical assessment and issue Order.

North Anna Unit 1

Plans:

Inspection completed (October 2001).

Staff Conclusions:

Licensee must support "qualified visual" analysis to demonstrate acceptability of using design drawing tolerances.

Action to be Ordered:

To be determined.

NEXT STEP:

Complete review of visual examination qualification and inspection results.

Robinson

Plans:

Qualified visual examination @ next RFO [REDACTED] They will qualify the visual examination from APRIL 2001 OR they will provide a shutdown schedule to permit inspections (per telecon 10/11/01).

Staff Conclusions:

Licensee must support "qualified visual" analysis to demonstrate acceptability of using design

Ext

drawing tolerances and qualify the April 2001 examination, or the licensee must perform inspection by December 31, 2001.

Action to be Ordered:
To be determined.

NEXT STEP:
Review information to be submitted 10/19.

Davis-Besse

Plans:
Qualified visual examination @ next RFO (April 2002).

- Staff Conclusions:
- Delay of examination beyond December 31, 2001, is not acceptable.
 - Prior inspection (even if qualified) was more than 18 months from planned inspection.

Action to be Ordered:
Licensee must perform inspection by December 31, 2001.

NEXT STEP:
Review submitted information and assess need for Order.

North Anna Unit 2

Plans:
Qualified visual examination @ next RFO [REDACTED] OR activities to clean the head (one outage) and then do a visual examination (second outage) by the end of the year (the latter in a telecon on 10/2/01). Verbally indicated they will shutdown and inspect by early November.

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- Staff Conclusions:
- Delay of examination beyond December 31, 2001, is not acceptable.
 - Any head cleaning should occur **AFTER** a visual examination (all nozzles exhibiting Ocone/ANO-1/Crystal River type deposits would require immediate attention, and all nozzles exhibiting North Anna Unit 1 type deposits would be further examined using ECT at the next RFO).
 - Licensee must support "qualified visual" analysis to demonstrate acceptability of using design drawing tolerances (see North Anna Unit 1).

Action to be Ordered:
Licensee must perform an inspection by December 31, 2001

NEXT STEP:
Receive submittal and determine acceptability of plans & visual examination qualification.

Surry Unit 2

Plans:

Qualified visual examination @ next RFO (March 2002) **OR** activities to clean the head (one outage) and then do a visual examination (second outage) by the end of the year (the latter in a telecon on 10/2/01).

Staff Conclusions:

- Delay of examination beyond December 31, 2001, is not acceptable.
- Any head cleaning should occur **AFTER** a visual examination (all nozzles exhibiting Oconee/ANO-1/Crystal River type deposits would require immediate attention, and all nozzles exhibiting North Anna Unit 1 type deposits would be further examined using ECT at the next RFO).

Action to be Ordered:

Licensee must perform an inspection by December 31, 2001.

NEXT STEP:

Wait for further licensee response and proceed with Order.

Moderate Susceptibility Plants

Farley Unit 2

Plans:

In a supplemental Bulletin response (10/9/2001), the licensee indicated that they will perform a 100% effective visual examination at the next RFO [REDACTED] for a qualified volumetric examination (if one exists).

Staff Conclusions:

Plans are acceptable.

Actions to be Ordered:

None.

Ft. Calhoun

Plans:

Unspecified in bulletin response, but in a telecon (10/4/01) the licensee indicated that they will perform a 100% effective visual examination at the next RFO (April/May 2002).

Staff Conclusions:

Verbal plans are acceptable.

Actions to be Ordered:

None, once the verbal plan is docketed.

NEXT STEP:

Review licensees revised Bulletin response.

Ginna

Plans:

Unspecified in bulletin response, verbally indicated (telecon on 10/5/01) an on-going effort to use results from 1999 ECT **OR** perform a 100% effective visual inspection of the head at the next refueling outage in March 2002 (given unfavorable results of the exam).

Staff Conclusions:

Prior ECT is not an acceptable basis to forego examination at next RFO.

Action to be Ordered:

Licensee must perform an effective visual examination, or better (e.g., wetted surface ECT) at the next RFO.

NEXT STEP:

Licensee has proposed a meeting in early November to discuss their technical evaluation.

Millstone Unit 2

Plans:

Unspecified in bulletin response and a follow-up telecon (10/5/01) elicited no additional details -- licensee will provide information "in a couple of weeks." Next RFO is February 2002.

Staff Conclusions:

Licensee should provide details on their inspection.

Action to be Ordered:

Licensee must perform an effective visual examination, or better (e.g., wetted surface ECT) at the next RFO.

NEXT STEP:

Need to receive additional information and proceed with Order.

ANO Unit 2

Plans:

Licensee proposed a surface or volumetric examination of 25% of the nozzles at the next RFO (April 2002).

Staff Conclusions:

Examination of 25% of nozzles does not provide reasonable assurance for 100% of the

nozzles.

Action to be Ordered:

Licensee must perform an examination of 100% of the nozzles at the next RFO.

NEXT STEP:

Licensee will reconsider and get back to us.

Indian Point Units 2 & 3

Plans:

Continue "above the insulation" visual inspections at the next RFOs [redacted] for Unit 2 and [redacted] for Unit 3). EY 4

Staff Conclusions:

"Above the insulation" visual examination are not adequate to detect leakage or cracking in VHP nozzles.

Action to be Ordered:

Licensee must perform an effective visual examination, or better (e.g., wetted surface ECT) at the next RFO.

NEXT STEP:

Licensee will reconsider and get back to us within one month of call (11/9/2001).

Palo Verde Units 1, 2 & 3

Plans:

Perform no inspections at the next RFOs [redacted] for Unit 1, May 2002 for Unit 2 and September 2001 for Unit 3), but perform volumetric examinations on the following schedule: [redacted] for Unit 1, [redacted] for Unit 2 and [redacted] for Unit 3. EY 4

Staff Conclusions:

Delay of examinations for one cycle (Units 1 and 3) or two cycles (Unit 3) is not acceptable.

Action to be Ordered:

Licensee must perform an effective visual examination, or better (e.g., wetted surface ECT) at the next RFOs (beginning Spring 2002) for each unit. Detection of leakage or cracking at Unit 2 in Spring 2002 would result in a need to demonstrate "reasonable assurance" for Unit 3 (possibly through examination).

NEXT STEP:

They will come back to NRC in mid-November.

St. Lucie Unit 2

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Plans:

Initial response was to perform no inspections at the next RFO (November 2001) but perform volumetric examination at the following RFO [REDACTED]. In a telecon on 10/11/2001, they indicated that they would perform a qualified visual examination at the next RFO.

Staff Conclusions:

Delay of examination for one cycle is not acceptable.

Action to be Ordered:

Licensee must perform an effective visual examination, or better (e.g., wetted surface ECT) at the next RFO.

NEXT STEP:

Staff will travel to licensee and review licensee inspection plans, contingencies and justifications the week of 10/22/2001.