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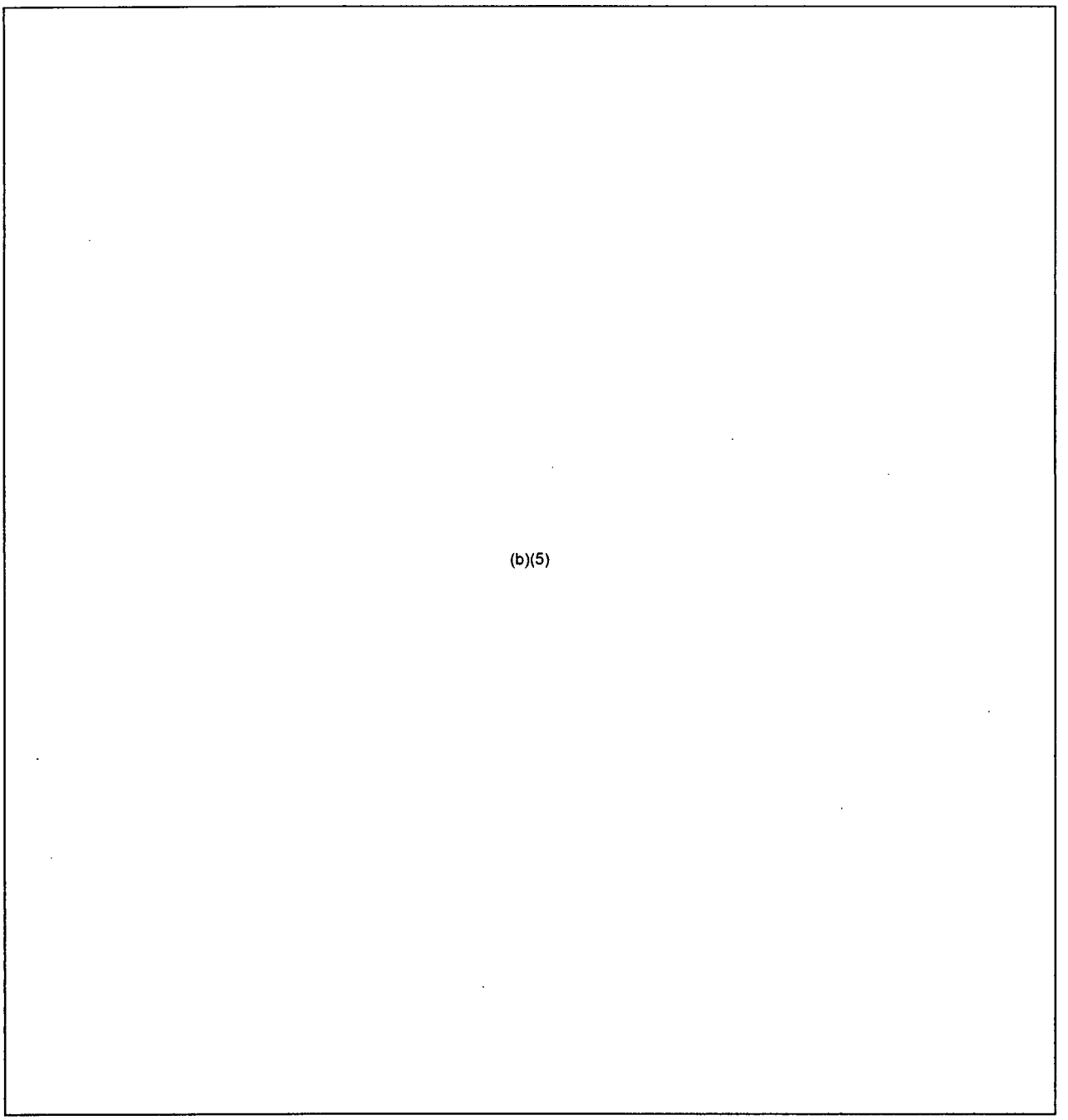

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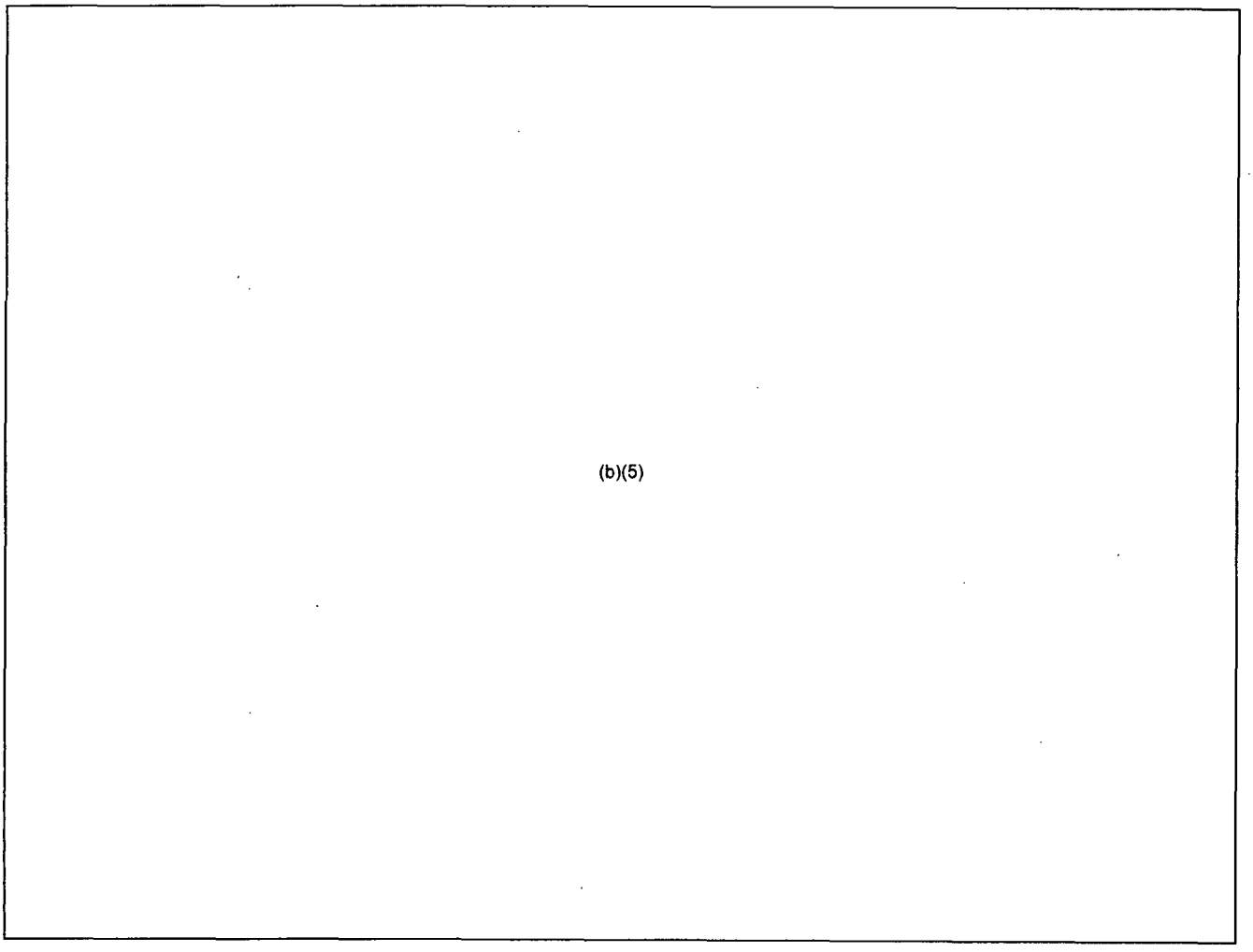

Appendix B

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Appendix C

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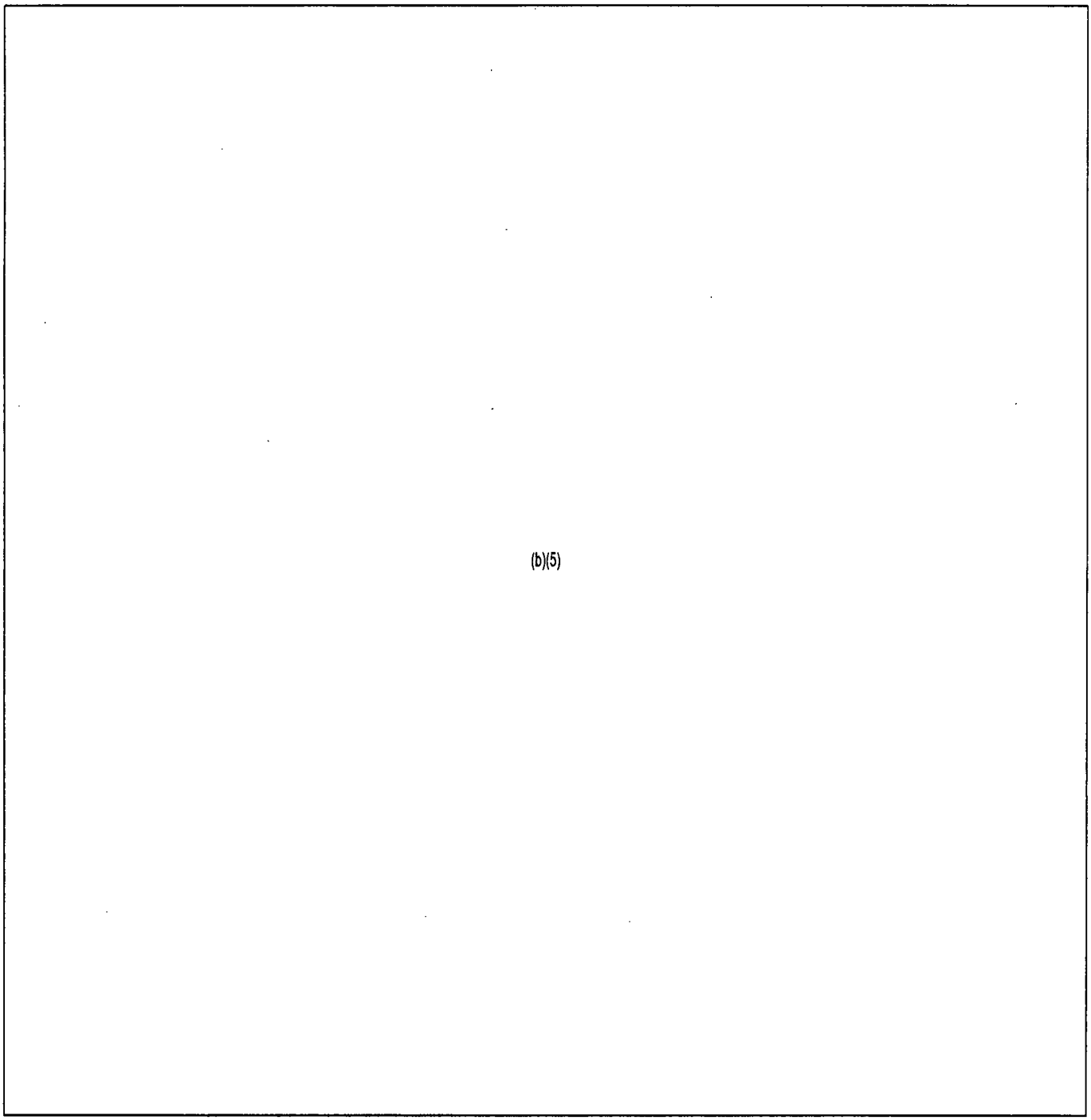
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Appendix D

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ENCLOSURE 4

CJ 1505 of 1949

(b)(5)

(b)(5)

ENCLOSURE 5

CJ 1506 of 1949

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

FOR: The Commissioners

FROM: Charles L. Miller, Director
Office of Federal and State Materials
and Environmental Management Programs

SUBJECT: ANNUAL REPORT TO THE COMMISSION ON LICENSEE PERFORMANCE IN THE MATERIALS AND WASTE PROGRAMS FISCAL YEAR 2010

(b)(5)

CONTACT: Duane E. White, FSME/MSSA
(301) 415-6272

(b)(5)

(b)(5)

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Charles L. Miller, Director
Office of Federal and State Materials
and Environmental Management Programs

Enclosures:

1. (b)(5)
2.
3.
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5.

(b)(5)

Charles L. Miller, Director
Office of Federal and State Materials
and Environmental Management Programs

Enclosures:
1.
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3. (b)(5)
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5.

DISTRIBUTION: WITS200200096/EDATS: SECY-2010-0191
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ML110680165

OFFICE	FSME/MSSA	FSME/MSSA	FSME/MSSA	FSME/DWMEP	NMSS	RGN I
NAME	DWhite	JCai	JLuehman	LCamper	CHaney	BDean
DATE	02/28/11	03/ 04 /11	03/ 07 /11	03/ /11	03/ /11	03/ /11
OFFICE	RGN II	RGN III	RGN IV	NSIR	OI	OE
NAME	VMcCree	MSatorius	ECollins	JWiggins	CMcCrary	RZimmerman
DATE	03/ /11	03/ /11	03/ /11	03/ /11	03/ /11	03/ /11
OFFICE	OGC	FSME/MSSA	TechEditor	FSME		
NAME	CScott(NLO)	RLewis	CPoland	CLMiller		
DATE	03/ /11	03/ /11	03/ /11	03/ /11		

OFFICIAL RECORD COPY

From: McCree, Victor
Sent: Friday, March 11, 2011 8:54 PM
To: R2SR_MANAGERS
Subject: FW: Retirement

FYI

From: Miller, Charles
Sent: Monday, March 07, 2011 7:34 PM
To: Virgilio, Martin; Weber, Michael; Ash, Darren; Cohen, Miriam; Doane, Margaret; Schmidt, Rebecca; McCrary, Cheryl; Zimmerman, Roy; Sheron, Brian; Haney, Catherine; Johnson, Michael; Wiggins, Jim; Dean, Bill; McCree, Victor; Satorius, Mark; Collins, Elmo; Howard, Patrick; Boyce, Thomas (OIS); Stewart, Sharon; Leeds, Eric
Subject: Retirement

Friends,

I informed Bill today of my intention to retire. It was a hard decision, but the time has come. I plan to do this in a couple months so I hope to see you all over that time. Thank you for helping to make my career great. Talk to you soon.

From: McCree, Victor
Sent: Friday, March 11, 2011 8:19 PM
To: Woodruff, Gena
Subject: FW: Request for Administrator McCree to Speak at the June 8th NEI EP Forum

Gena,

As you may have noticed based on the prior two emails, I have accepted the invitation extended below. I'd like you to coordinate with NSIR to prepare my remarks (as I indicated in a previous email). Please contact Sue Perkins-Grew (see contact info below) to ask her of any specific topics she'd like me to address.

In addition, please contact Brian Bonser to identify Regional issues to factor into my remarks.

Vic

From: Miles, Patricia
Sent: Monday, February 28, 2011 5:15 PM
To: McCree, Victor
Cc: Lee, Pamela
Subject: FW: Request for Administrator McCree to Speak at the June 8th NEI EP Forum

Hi Victor,

Please see the email below regarding an invitation to attend a meeting in June.

From: PERKINS-GREW, Susan [mailto:spg@nei.org]
Sent: Monday, February 28, 2011 2:58 PM
To: Miles, Patricia
Subject: Request for Administrator McCree to Speak at the June 8th NEI EP Forum

Patricia,

Per our conversation earlier, I am the Director of Emergency Preparedness at the Nuclear Energy Institute (NEI) and am planning our annual Emergency Preparedness Forum in June. This is the industry's premier emergency planning conference that is typically attended by over 100 nuclear power plant emergency preparedness professionals in addition to some international attendance. Since this year's Forum is taking place in Region II, I was hopeful that perhaps Administrator McCree would be available and willing to deliver this year's key note address. Last year we had Commissioner Ostendorff and he was very informative and well received. I believe that this Forum provides a valuable opportunity for NRC senior leadership to become familiar with the emergency preparedness leadership within the industry.

The Forum details are below and we certainly would be flexible to accommodate Mr. McCree's schedule.

NEI Emergency Preparedness Forum
June 8 – 10, 2011
The Westin Savannah
Savannah, Georgia

The Forum kicks off at 8:00 am on Wednesday, June 8th. We could also accommodate the Commissioner as a luncheon speaker as well.

Thank you in advance for your consideration and please do not hesitate to contact me to discuss any additional details.

I look forward to hearing from you.

Regards,

Sue

Susan Perkins-Grew
Director, Emergency Preparedness

Nuclear Energy Institute
1776 I Street NW, Suite 400
Washington, DC 20006
www.nei.org

Office: 202-739-8016
Mobile (b)(6)
Fax: 202-533-0130
spg@nei.org

From: McCree, Victor
Sent: Friday, March 11, 2011 7:57 PM
To: Miles, Patricia
Subject: FW: Senior Leadership Meeting - April 21
Attachments: Spring 2011 SLM Agenda.docx

Pat – please include this in my travel folder for the SLM.

Thanks, Vic

From: Ellmers, Glenn
Sent: Wednesday, February 02, 2011 3:49 PM
To: Ash, Darren; Boger, Bruce; Boyce, Thomas (OIS); Brenner, Eliot; Brown, Milton; Burns, Stephen; Carpenter, Cynthia; Casto, Chuck; Cohen, Miriam; Collins, Elmo; Dapas, Marc; Dean, Bill; Doane, Margaret; Droggitis, Spiros; Dyer, Jim; Greene, Kathryn; Grobe, Jack; Hackett, Edwin; Haney, Catherine; Hayden, Elizabeth; Holahan, Gary; Howard, Patrick; Johnson, Michael; Kelley, Corenthis; Leeds, Eric; Lyons, James; Mamish, Nader; McCrary, Cheryl; McCree, Victor; Miller, Charles; Moore, Scott; Pederson, Cynthia; Plisco, Loren; Poole, Brooke; Powell, Amy; Reyes, Luis; Satorius, Mark; Schaeffer, James; Schmidt, Rebecca; Sheron, Brian; Stewart, Sharon; Virgilio, Martin; Weber, Michael; Wiggins, Jim; Williams, Barbara; Zimmerman, Roy; Campbell, Andy; Holahan, Patricia; Dorman, Dan; Muessle, Mary; Wert, Leonard; Tracy, Glenn; Batkin, Joshua; Pace, Patti; Taylor, Renee
Cc: Akstulewicz, Brenda; Andersen, James; Bellosi, Susan; Belmore, Nancy; Blake, Kathleen; Borchardt, Bill; Boyd, Lena; Buckley, Patricia; Casby, Marcia; Cianci, Sandra; Crawford, Carrie; Flory, Shirley; Garland, Stephanie; Higginbotham, Tina; Hudson, Sharon; Landau, Mindy; Matakas, Gina; Miles, Patricia; Pulley, Deborah; Rihm, Roger; Riner, Janet; Ronewicz, Lynn; Ross, Robin; Salus, Amy; Tannenbaum, Anita; Taylor, Renee; Thomas, Loretta; Walker, Dwight; Warner, MaryAnn; Wright, Darlene; Wyatt, Melissa; Cannady, Ashley; Ellmers, Glenn; Lockhart, Denise; Perez-Ortiz, Aracelis; Riddick, Nicole; King, Shannon; Penny, Melissa; Sprogeris, Patricia; Banks, Eleasah; Nagel, Cheri; Hasan, Nasreen; Call, Michel; Thaggard, Mark; Young, Gary; Holonich, Joseph; Jaigobind, Avinash; Brown, Theron; Moore, Mary; Daniels, Stanley; Rakovan, Lance; Kreuter, Jane; Schumann, Stacy
Subject: Senior Leadership Meeting - April 21

Attached please find the draft agenda for the April 21 SLM to be held at the Professional Training Center in Bethesda (the day after the AARM, in the same location).

Continental breakfast will be available at 7:30 am, and the meeting itself will begin at 8:00 am. Because the meeting is the day before Good Friday, we will be ending early to accommodate those who are travelling. To make up some time, therefore, we will be having a working lunch in the room (D), with a variety of sandwiches and bottled water delivered. (There is a vending machine in the adjacent kitchen for those who might prefer soft drinks.) With this arrangement, we are able to keep the cost of the breakfast and lunch to $20. Please provide this money to Bill's secretary, Renee Taylor, by April 7th.

If you have any questions, feel free to contact me or your DEDO.

Glenn Ellmers
Senior Communications Specialist, OEDO
301-415-0442
OWFN - 17F03
Mail stop: 016E15

DRAFT

Spring 2011 Senior Leadership Meeting

April 21, 2011
NRC Professional Development Center
Bethesda, MD

(b)(5)

From: McCree, Victor
Sent: Friday, March 11, 2011 6:09 PM
To: (b)(6)
Subject: FW: Request for Photographer
Attachments: 2011 03 McCree Victor 01.jpg; 2011 03 McCree Victor 02.jpg; image001.png

---

From: Greenwood, Krystal **On Behalf Of** AV-PHOTO Resource
Sent: Monday, March 07, 2011 3:46 PM
To: Mills, Vivian; AV-PHOTO Resource
Cc: McCree, Victor
Subject: RE: Request for Photographer

Good Afternoon:

Please find attached images.

Thank you,

Krystal Greenwood

3 Links Technologies
AudioVisual Support Contractor
U.S. Nuclear Regulatory Commission
Location: T6E8
Mailstop: T6E20
Tel. 301-415-6851
Krystal.Greenwood@nrc.gov

From: Mills, Vivian
Sent: Wednesday, February 23, 2011 7:37 AM
To: AV-PHOTO Resource
Subject: RE: Request for Photographer

Thank you Krystal.

From: Greenwood, Krystal **On Behalf Of** AV-PHOTO Resource
Sent: Wednesday, February 23, 2011 7:13 AM
To: Sall, Basia; AV-PHOTO Resource
Cc: Mitchell, Reggie; Mills, Vivian; Richardson, Jerry
Subject: RE: Request for Photographer

Good Morning:

The images from the ACRS Division Meeting are being sent to your mailstop, T9F04, today.

Thank you,

Krystal Greenwood
3 Links Technologies
AudioVisual Support Contractor
U.S. Nuclear Regulatory Commission
Location: T6E8
Mailstop: T6E20
Tel. 301-415-6851
Krystal.Greenwood@nrc.gov

From: Sall, Basia
Sent: Thursday, February 17, 2011 9:35 AM
To: AV-PHOTO Resource
Cc: Mitchell, Reggie; Mills, Vivian; Richardson, Jerry
Subject: Request for Photographer

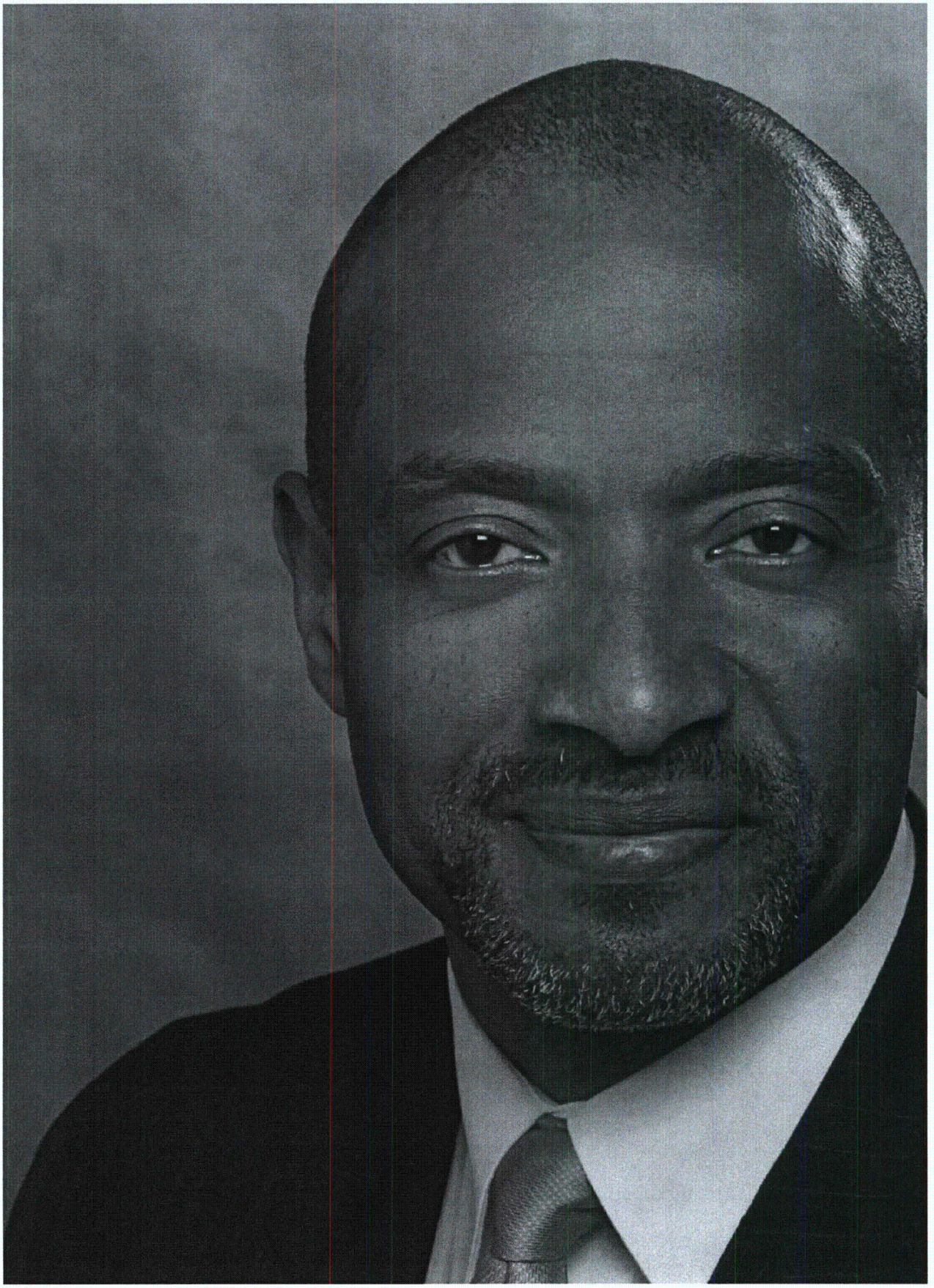
Good Morning:

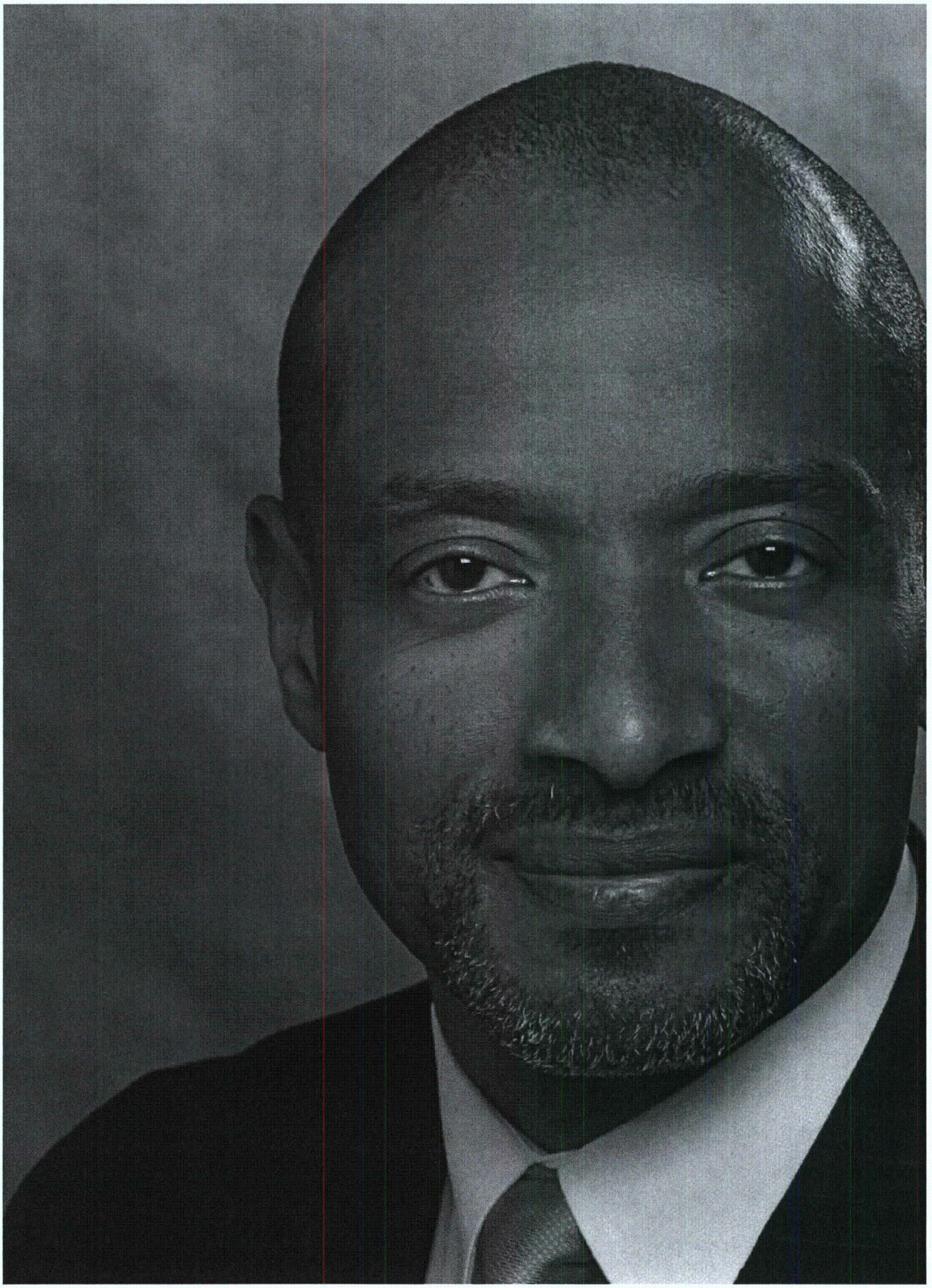
The OCFO would like to request a photographer at 10:00am in the ACRS Conference Room on the second floor of TWFN. It is for the **Division Meeting with the New Controller.**

Please let me know if you need additional information.

Thanks and sorry for the short turnaround time!
Basia

Basia Sall
Senior Program Analyst
OCFO/RMS
U.S. Nuclear Regulatory Commission
basia.sall@nrc.gov
(301) 415-6389
T9-F07





From: McCree, Victor
Sent: Friday, March 11, 2011 6:05 PM
To: (b)(6)
Subject: (b)(6)

FYI

From: McCree, Victor
Sent: Friday, March 11, 2011 6:04 PM
To: (b)(6)
(b)(6)
Cc: 'Ricks, David '
Subject: FW: (b)(6)

(b)(6)

Vic

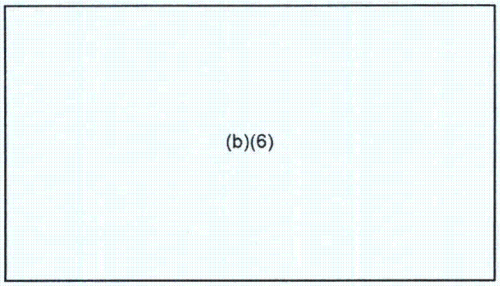
From: (b)(6)
Sent: Friday, March 11, 2011 8:03 AM
To: (b)(6)
(b)(6)
Subject: (b)(6)

(b)(6)

From: (b)(6)
Sent: Monday, March 07, 2011 4:41 PM
To: (b)(6)
Subject: (b)(6)

(b)(6)

(b)(6)


(b)(6)

From: McCree, Victor
Sent: Friday, March 11, 2011 5:40 PM
To: Coleman, Judy; Trent, Glenn; Wert, Leonard; Casto, Chuck
Subject: Fw: IMPORTANT: Atlanta FEB Full Board Meeting - Guest: The Honorable Nathan Deal - Governor of the State of Georgia
Attachments: ATT00001..gif; 2010 September Full Board Meeting Registration Form.pdf; FEB Full Board POSTER March2011 Nathan Deal.pdf

FYI

This email is being sent from an NRC Blackberry device.

From: ronald.stephens@gsa.gov <ronald.stephens@gsa.gov>
Sent: Fri Mar 11 09:08:18 2011
Subject: IMPORTANT: Atlanta FEB Full Board Meeting - Guest: The Honorable Nathan Deal - Governor of the State of Georgia

IMPORTANT
Atlanta Federal Executive Board
Spring Full Board Meeting
Tuesday March 29, 2011 at 10:00AM-12:00PM

Registration Form Attached

You are invited to attend the Atlanta Federal Executive Board's Full Board Meeting on Tuesday March 29, 2011 at 10:00AM in the Richard B. Russell Federal Building's Strom Auditorium on the Lower Pavilion level of the building. Our Guest Speaker will be the Honorable Nathan Deal, Governor of the State of Georgia.

Spring Full Board Meeting
Tuesday, March 29, 2011 10:00 a.m.
Richard B. Russell Federal Building
75 Spring St. SW –Lower Plaza- Strom Auditorium

Atlanta, Georgia 30303

Speaker: Governor of the State of Georgia, The Honorable Nathan Deal

Please register your executive staff. You may register up to 10 people. Please register early. Fax your Registration to
the Atlanta Federal Executive Board (404) 331-4270. Register By FAX . Registration Form Attached .

R.S.V.P. Form

Atlanta Federal Executive Board

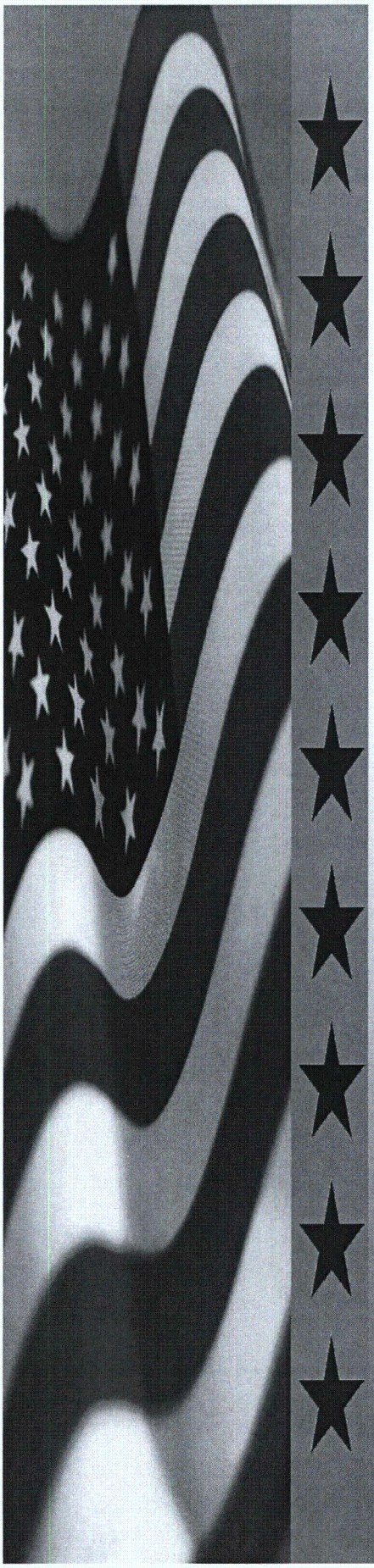
2011 SPRING FULL BOARD

Atlanta Federal Executive Board
75 Spring St SW Suite 1142
Atlanta, GA 30303
Phone: 404-331-4400
Fax: 404-331-4270

Tuesday March 29, 2011 10:00AM-12:00PM
Richard B. Russell Federal Building
Lower Pavilion – Strom Auditorium
75 Spring St SW Atlanta, Georgia 30303

Name of Participants	Agency	Email

FAX THIS FORM ONLY
(404) 331-4270

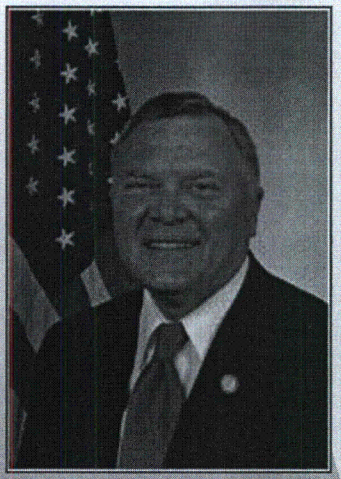


FEDERAL EXECUTIVE BOARD
Atlanta

THE ATLANTA FEDERAL
EXECUTIVE BOARD
Invites You To Attend Our

FULL BOARD MEETING

Guest Speaker



The Honorable Nathan Deal

Governor of the Great State of Georgia

When: Tuesday March 29, 2011
Time: 10:00 A.M.
Location: Richard B. Russell Building
75 Spring St SW. Lower Level
Strom Auditorium

Register by email: atlantafeb@gsa.gov
Or Call (404) 331-4400

From: McCree, Victor
Sent: Friday, March 11, 2011 5:40 PM
To: Zimmerman, Roy; Johnson, Michael
Cc: Akstulewicz, Frank
Subject: Re: phone conference on Friday 3/11

(b)(5)

Vic

This email is being sent from an NRC Blackberry device.

From: Zimmerman, Roy
To: Johnson, Michael
Cc: McCree, Victor; Akstulewicz, Frank
Sent: Fri Mar 11 16:15:15 2011
Subject: RE: phone conference on Friday 3/11

(b)(5)

From: Akstulewicz, Frank
Sent: Friday, March 11, 2011 2:00 PM
To: Johnson, Michael
Cc: McCree, Victor; Zimmerman, Roy; Sprogeris, Patricia
Subject: phone conference on Friday 3/11

Michael,

(b)(5)

From: McCree, Victor
Sent: Friday, March 11, 2011 5:39 PM
To: Akstulewicz, Frank; Casto, Chuck
Subject: RE: info: revised licensing slides with expanded hearing discussion

Got it – thanks Frank!

From: Akstulewicz, Frank
Sent: Friday, March 11, 2011 1:47 PM
To: McCree, Victor; Casto, Chuck
Subject: FW: info: revised licensing slides with expanded hearing discussion

Here is the graphic as promised on Friday… as I mentioned, the dates start with March 11 submittal for Rev 19… so the dates will be updated to reflect the new submittal date of Rev 19 as March 18.

These are OUO so please distribute to a limited audience. We did discuss our internal dates in the context of being ahead of our published milestones by "about 30 days" but we did not share the specific internal completion dates with them.

I thought our discussion was very good and look forward to future interactions. If you have any additional questions or need further information please feel free to call anytime..

Office.. 301- 415- 1199
Personal cell (b)(6)

From: Cruz, Jeffrey
Sent: Wednesday, March 09, 2011 11:57 AM
To: Akstulewicz, Frank
Subject: FW: info: revised licensing slides with expanded hearing discussion

Updated with dates for hearing and colored date fonts.

From: Sebrosky, Joseph
Sent: Wednesday, March 09, 2011 10:58 AM
To: Cruz, Jeffrey
Cc: Habib, Donald; Joshi, Ravindra; Bavol, Bruce
Subject: info: revised licensing slides with expanded hearing discussion

Jeff,

The attached shows dates that are in the future in bold red font in accordance with the guidance that you provided.

(b)(5)

For now, we plan to update the document as directed by you.

Let me know if I am missing something.

Thanks,

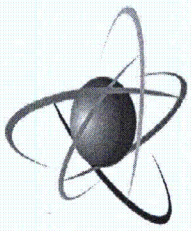
Joe

(b)(5)

CJ 1539 of 1949

(b)(5)

CJ 1540 of 1949



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UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

(b)(5)

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UNITED STATES NUCLEAR REGULATORY COMMISSION
Protecting People and the Environment

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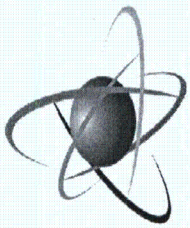

U.S.NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

(b)(5)

(b)(5)

CJ 1543 of 1949

From: McCree, Victor
Sent: Friday, March 11, 2011 5:39 PM
To: Miles, Patricia
Subject: RE: EDO Alignment/Prebriefs for Commission Meetings

No need to include any of the new (red text) meetings on my schedule.

From: Miles, Patricia
Sent: Friday, March 11, 2011 2:23 PM
To: R2SR_MANAGERS
Cc: Dubose, Sheila; Lee, Pamela
Subject: FW: EDO Alignment/Prebriefs for Commission Meetings

All,

Please let me know if you are interested in any of the attached commission meetings via VTCs.

The Small Modular Reactors 3/17 EDO prebrief VTC and the 3/29 commission meeting have been scheduled.

Thanks,

Patricia A. Miles
Administrative Assistant to the Regional Administrator
US Nuclear Regulatory Commission, Region II
245 Peachtree Center Ave. NE Suite 1200
Atlanta, GA 30303-1257
404-997-4413 (office)
404-997-4901 (fax)
Patricia.Miles@nrc.gov

From: Taylor, Renee
Sent: Friday, March 11, 2011 1:58 PM
To: Akstulewicz, Brenda; Andersen, James; Blount, Tom; Boger, Bruce; Bowman, Adriane; Boyce, Thomas (OIS); Boyd, Lena; Buckley, Patricia; Cannady, Ashley; Carpenter, Cynthia; Casby, Marcia; Casto, Chuck; Cianci, Sandra; Cohen, Miriam; Collins, Elmo; Collins, Jay; Cooper, LaToya; Corley, Cherrie; Damiano, Debra; Dapas, Marc; Dean, Bill; Dubose, Sheila; EDO_ETAs; Evans, Michele; Flory, Shirley; Garland, Stephanie; Givvines, Mary; Greene, LaTosha; Grobe, Jack; Haney, Catherine; Hasan, Nasreen; Higginbotham, Tina; Holahan, Gary; Howard, Patrick; Johnson, Michael; Kelley, Corenthis; Landau, Mindy; Lee, Pamela; Leeds, Eric; Lockhart, Denise; Lubinski, John; Mamish, Nader; Matakas, Gina; Mayberry, Theresa; McClain, Nicole; McCrary, Cheryl; McCree, Victor; McGinty, Tim; Miles, Patricia; Miller, Charles; Mitchell, Matthew; Muessle, Mary; ODaniell, Cynthia; Owen, Lucy; Pederson, Cynthia; Penny, Melissa; Plisco, Loren; Quesenberry, Jeannette; Riddick, Nicole; Ronewicz, Lynn; Ross, Brenda; Salus, Amy; Satorius, Mark; Scarbrough, Thomas; Schaeffer, James; Schumann, Stacy; Schwarz, Sherry; Sheron, Brian; Sprogeris, Patricia; Tannenbaum, Anita; Taylor, Renee; Terry, Leslie; Thomas, Loretta; Tomczak, Tammy; Uhle, Jennifer; Veltri, Debra; Walker, Dwight; Weber, Michael; Wiggins, Jim; Williams, Barbara; Zimmerman, Roy
Subject: EDO Alignment/Prebriefs for Commission Meetings

Please see updated copy, typo on date for the 6/2 EDO Alignment meeting. Corrected copy attached.

Thank you,
Renee

From: McCree, Victor
Sent: Friday, March 11, 2011 5:35 PM
To: Dubose, Sheila; Miles, Patricia; Casto, Chuck
Cc: Moorman, James; Ayres, David; Wert, Leonard; Lee, Pamela; Gody, Tony; Cobey, Eugene
Subject: RE: Victor McCree's Calendar for April 6, 2011

Shelia,

I should be able to cover the pre-AARM VTC, assuming that Len will be on hand to lead the GEH-Global PEC at 12:30.

[Pat/Pam] Please confirm Len's schedule.

Vic

From: Dubose, Sheila
Sent: Friday, March 11, 2011 2:38 PM
To: Miles, Patricia; McCree, Victor; Casto, Chuck
Cc: Moorman, James; Ayres, David
Subject: RE: Victor McCree's Calendar for April 6, 2011

I spoke with David Ayres and Jim Moorman regarding this meeting and David Ayres is aware and available to attend. Jim Moorman will (b)(6)

From: Miles, Patricia
Sent: Friday, March 11, 2011 2:20 PM
To: McCree, Victor; Casto, Chuck
Cc: Dubose, Sheila
Subject: FW: Victor McCree's Calendar for April 6, 2011

Victor and Chuck,

There is a scheduled pre-AARM VTC on April 6 at 2:00 p.m. Since both of you will not be available, can we designate someone to cover the meeting? Jose Jimenez (NRO) is the POC.

Please advise,
Pat

From: Jimenez, Jose
Sent: Friday, March 11, 2011 12:52 PM
To: Miles, Patricia
Subject: RE: Victor McCree's Calendar for April 6, 2011

Good Afternoon Pat,

Will Chuck Casto be available in his stead. Since we are discussing construction activities it makes sense. Will Victor be ok with Chuck briefing him later?

From: Miles, Patricia
Sent: Friday, March 11, 2011 12:48 PM

To: Jimenez, Jose
Subject: Victor McCree's Calendar for April 6, 2011

Hi Jose,

Victor will not be available for the April 6 pre-AARM VTC. He has been tasked to participate in a predecisional enforcement conference at 2:00 p.m.

Thanks,

Patricia A. Miles
Administrative Assistant to the Regional Administrator
US Nuclear Regulatory Commission, Region II
245 Peachtree Center Ave. NE Suite 1200
Atlanta, GA 30303-1257
404-997-4413 (office)
404-997-4901 (fax)
Patricia.Miles@nrc.gov

From: Farrell, Karlisa
Sent: Friday, March 11, 2011 3:54 PM
To: Sykes, Marvin; Gody, Tony; Wert, Leonard; McCree, Victor; Silva, Patricia; Silva, Patricia
Cc: Lopez, Omar
Subject: Special Inspection Team Charter for GNF-A
Attachments: image001.gif; Special Inspection Charter (2).pdf; image004.jpg

Hello All,

Please find the attachment.

Note: File is also located in ADAMS under accession number ML110700625

Thanks,
Karlisa Farrell
Administrative Assistant, Fuel Facility Branch 3
Division of Fuel Facility Inspection
U.S. Nuclear Regulatory Commission-Region II
245 Peachtree Center Avenue, N.E. Suite 1200
Atlanta, Georgia 30303-1257
Office: 404.997.4405
Fax: 404.997.4910
Email: karlisa.farrell@nrc.gov


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Please consider the environment before printing this email. Thank you!

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NUCLEAR REGULATORY COMMISSION
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

March 11, 2011

MEMORANDUM TO: Omar R. López, Team Leader
Global Nuclear Fuel – America, L.L.C., Special Inspection

FROM: Victor M. McCree, Regional Administrator **/RA/ by L. Wert for**

SUBJECT: SPECIAL INSPECTION TEAM CHARTER FOR GLOBAL NUCLEAR FUEL-AMERICA, L.L.C., DOCKET NO. 70-11113 (INSPECTION REPORT NO. 70-1113/2011-006)

This memorandum confirms the establishment of a Special Inspection Team (SIT) at Global Nuclear Fuel – America, L.L.C. (GNF-A) to inspect and assess the facts and circumstances surrounding the failure to maintain mass control within the UO_2 Sinter Test Grinding Station HEPA filter enclosure. The issue was reported to the NRC Operations Center on March 2, 2011, (Event # 46650). You are the inspection leader and should report your status directly to me. Nicole Coovert and Christian M. Fisher are assigned as members of the team to assist in completing the objectives of the Charter. The onsite inspection should begin on March 14, 2011.

Management Directive 8.3, "NRC Incident Investigation Program," was used to evaluate the level of NRC response for this operational event. Based on the deterministic criteria the staff concluded that this issue led to the loss of a significant safety function; involved possible adverse generic implications; involved significant design defects involving safety-related equipment; involved repetitive events involving safety-related equipment; and involved questions pertaining to licensee operational performance. NRC determined that the appropriate level or response was to conduct a Special Inspection.

The inspection will be performed in accordance with the guidance of Inspection Procedure (IP) 88003, IP 88020, and the applicable provisions of IP 93812; and will be consistent with Management Directive 8.3 and Manual Chapter 2600. The report will be issued within 30 days of the completion of the inspection.

A copy of the Charter is enclosed for your use. The objectives of the inspection are to gather information and make appropriate findings and conclusions in the areas listed in the Charter. These results will be used as a basis for any necessary follow-up. As indicated in the Charter, the foremost objective is to determine the safety implications and adequacy of the licensee's corrective actions for the issues which resulted in the event.

Enclosure: As stated

CONTACTS: Marvin D. Sykes, RII/DFFI
404-997-4629

Anthony T. Gody, RII/DFFI
404-997-4701

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404-997-4629

Anthony T. Gody, RII/DFFI
404-997-4701

*see previous concurrence

☐ PUBLICLY AVAILABLE √ NON-PUBLICLY AVAILABLE ☐ SENSITIVE √ NON-SENSITIVE

ADAMS: √ Yes ACCESSION NUMBER: ML110700625 ☐ SUNSI REVIEW COMPLETE

OFFICE	RII:DFFI	RII:DFFI	NMSS	RII:ORA			
SIGNATURE	/RA by MS/	/RA by AG/	/RA by PS for JK via email/	/RA by LW/			
NAME	MSykes*	AGody*	JKinnenman	LWert			
DATE	3/9/2011	3/9/2011	3/10/2011	3/11/2011	3/ /2011	3/ /2011	3/ /2011
E-MAIL COPY?	YES NO	YES NO	YES NO	YES	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\DNMSII\FFBII\EVENTS\GLOBAL NUCLEAR FUEL\SPECIAL INSPECTION CHARTER (2).DOCX

Special Inspection Team Charter
Global Nuclear Fuel - Americas
Failure to Maintain Mass Control in HEPA Filter Housing

Event

On February 1, 2011 at Global Nuclear Fuel−Americas (GNF-A), the licensee noticed a high differential pressure (Δp) of approximately 4 inches of H_2O across the filtration unit in the UO_2 Sinter Test Grinding Station. The licensee, using an approved procedure, replaced the pre-filter on February 1. Approximately 4 kilograms of UO_2 powder was removed from the pre-filter. The system was returned to service; however, the licensee did not see a reduction in the Δp readings.

On February 5, the licensee again removed the system from service and replaced the HEPA filter. During this activity, approximately 26.9 kilograms of UO_2 powder was removed from the HEPA. The combination of material removed from the pre-filter and HEPA totaled 30.9 kilograms of UO_2 powder, slightly less than the safe mass limit of 31 kilograms for dry UO_2 powder. The licensee stated that a Δp of 4 inches H_2O would normally be reached before 25 kilograms of UO_2 accumulated on the HEPA filter. This particular HEPA filter is believed to have been in service for approximately two years. The licensee entered this occurrence into their near miss tracking database and continued to operate the UO_2 Sinter Test Grinding Station.

On March 1, while performing routine non-destructive analysis (NDA) of the ventilation duct around the UO_2 Sinter Test Grinding Station HEPA enclosure, the licensee identified material in the transition section of the HEPA filter enclosure. The licensee re-entered the system and removed approximately 15.3 kilograms of UO_2 powder. This additional UO_2 powder was determined to have been present in the HEPA enclosure since at least February 1. Therefore, approximately 46 kilograms of UO_2 powder was present and uncontrolled in HEPA filter enclosure.

Upon discovery of the additional material in the transition section of the enclosure, the licensee shutdown the UO_2 Sinter Test Grinding Station and the other grinders in the facility to assess the extent of condition. GNF identified similar grinders and reviewed historical Δp data for all of the HEPA enclosures. No other examples of excessive material accumulation were identified. The licensee determined that all other grinder HEPA enclosures had a different design, no common issues were noted. The UO_2 Sinter Test Grinding Station remained shutdown but all other grinders were returned to service while the licensee conducts a root cause investigation.

GNF relied on mass and moderation control to ensure double contingency and this condition represented a loss of mass control. Although the licensee has reported that moderation control was not impacted, double contingency was no longer satisfied. GNF reported this event on March 2, 2011(EN 46650) but did not specify the reporting criteria. A preliminary review of the issue by the staff indicates that the issue may have been reported in accordance with 10 CFR 70 Appendix A (b)(1), "Any event or condition that results in the facility being in a state that was

not analyzed, was improperly analyzed, or is different from that analyzed in the Integrated Safety Analysis, and which results in failure to meet the performance requirements of 10 CFR 70.61."

Objectives

The objectives of the inspection are to: 1) review the facts surrounding the failure to maintain mass control within the of UO_2 Sinter Test Grinding Station HEPA filter enclosure; 2) assess the licensee's response to the higher than anticipated UO_2 mass in the HEPA enclosure; and 3) evaluate the licensee's immediate and long term corrective actions to prevent recurrence. To accomplish these objectives, the following tasks will be completed:

1. Develop a timeline of the licensee's actions leading up to and following this process upset condition.

2. Determine the actual and potential safety significance to the workers, public, and the environment.

3. Evaluate the adequacy of the licensee's response to this process upset condition including operator response and maintenance effectiveness.

4. Evaluate the adequacy of licensee's event reporting.

5. Evaluate the adequacy of the licensee's causal analysis and extent of condition review.

6. Evaluate the adequacy of the licensee's immediate and long term corrective actions; and actions to prevent recurrence.

7. Evaluate the adequacy of the licensee's integrated safety analysis to ensure that performance requirements are met for this and related accident scenarios.

Documentation

Document the inspection findings and conclusions in an inspection report within 30 days of the completion of the inspection.

From: (b)(6)
Sent: Friday, March 11, 2011 3:53 PM
To: McCree, Victor; (b)(6)
Subject: (b)(6)

(b)(6)

From: Gody, Tony
Sent: Friday, March 11, 2011 3:11 PM
To: Brock, Kathryn
Cc: Frazier, Alan; Wert, Leonard; McCree, Victor; Kinneman, John; Tschiltz, Michael; Bailey, Marissa; Rzepka, Robert; Haney, Catherine
Subject: RE: Honeywell
Attachments: KOH settlement press release alternative.doc; image001.png

Expires: Monday, April 25, 2011 12:00 AM

Kathy,

(b)(5)

My cell# is (b)(6). Do not hesitate to contact me.

U.S.NRC
Tony Gody, Director
Division of Fuel Facility Inspection
USNRC Region II
O: 404.997.4700
E-Mail: tony.gody@nrc.gov

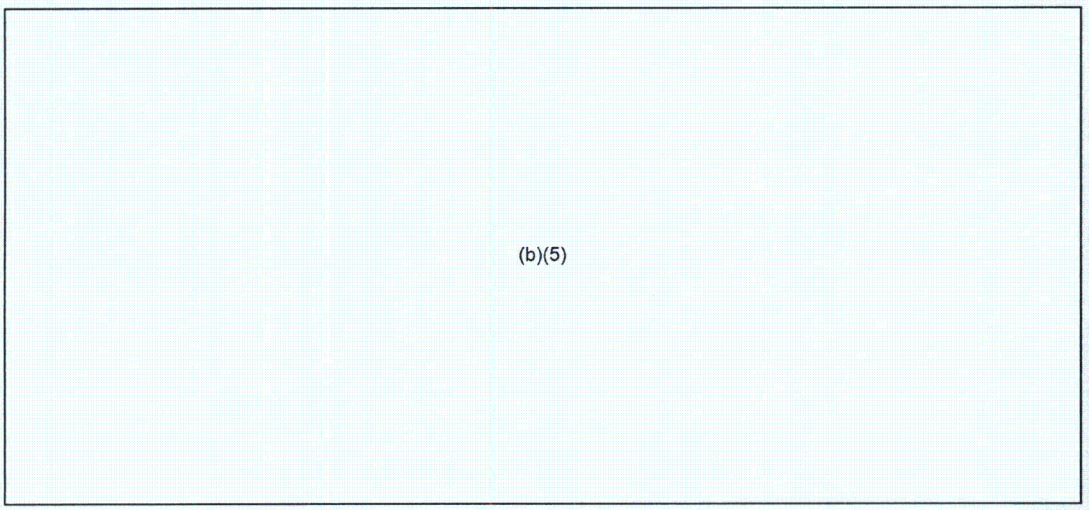
From: Brock, Kathryn
Sent: Friday, March 11, 2011 2:46 PM
To: Gody, Tony
Cc: Frazier, Alan
Subject: Honeywell

2 follow up questions:

(b)(5)

(b)(5)

(b)(5)


(b)(5)

From: Wert, Leonard
Sent: Friday, March 11, 2011 2:26 PM
To: McCree, Victor
Subject: FW: Slides for Chairmen Briefing on Robinson ASP
Attachments: Robinson Briefing Slides (Chairman).pptx

FYI, Best version of slides used....

From: Croteau, Rick
Sent: Friday, March 11, 2011 12:13 PM
To: Wert, Leonard
Subject: FW: Slides for Chairmen Briefing on Robinson ASP

fyi

From: Hunter, Christopher
Sent: Friday, March 11, 2011 9:18 AM
To: Bowman, Gregory; Rogers, Walt; Nease, Rebecca; Croteau, Rick
Cc: Demoss, Gary; Coyne, Kevin; Bowman, Gregory
Subject: RE: Slides for Chairmen Briefing on Robinson ASP

Sorry.

From: Hunter, Christopher
Sent: Friday, March 11, 2011 9:17 AM
To: Bowman, Gregory; Rogers, Walt; Nease, Rebecca; Croteau, Rick
Cc: Demoss, Gary; Coyne, Kevin; Bowman, Gregory
Subject: Slides for Chairmen Briefing on Robinson ASP

Attached are the updated slides. Based on a meeting with NRR yesterday afternoon, we have move the more technical slides to the back and we'll see where the Chairman wants to take the briefing. I have incorporated all the comments I have received. I will be bringing 30 copies to meeting.

Thanks,

Christopher Hunter

Sr. Reliability and Risk Engineer
U.S. Nuclear Regulatory Commission
21 Church Street
Mail Stop: C-4C07M
Rockville, Maryland 20850-4207

Phone: (301)251-7575
Fax: (301)251-7424

ASP Program and the Potential Significant Precursor at H.B. Robinson

Chris Hunter

Performance and Reliability Branch

Division of Risk Analysis

Office of Nuclear Regulatory Research

Introduction

- Provide a background on the Accident Sequence Precursor (ASP) Program.
  - Including differences between ASP and the Significance Determination Process (SDP).
- Provide a description of the March 28, 2010 event that occurred at H.B. Robinson.
  - Including some of the key modeling assumptions.
- Outline the status/issues and path forward for the ASP analysis.

ASP Program Objectives

- Determine the safety significance of events and regulatory implications.
- Provide feedback to improve Probabilistic Risk Analysis (PRA) models.
- Provide performance measures in annual Performance and Accountability Report (PAR), and input to the Abnormal Occurrence (AO) Report and the Industry Trends Program.
- Inform Commission of results of ASP program in an annual SECY paper.

What is an ASP Analysis?

- What is an accident sequence precursor?
  - An accident sequence precursor is an observed event and/or condition at a plant, when combined with one or more postulated events (e.g., equipment failures, human errors), could result in core damage.
  - Conditional core damage probability (CCDP) or increase in core damage probability (ΔCDP) $\geq 10^{-6}$.
  - A significant precursor is an event with a CCDP or ΔCDP $\geq 10^{-3}$.
- What is an ASP analysis?
  - An ASP analysis is a plant-specific risk analysis performed to determine the conditional likelihood of a core damage accident given an initiating event and/or plant equipment failures or unavailability.
  - Concurrent events and/or conditions are assumed failed in the risk model to generate the CCDP and identify dominant sequences/cutsets.

ASP and SDP

- The risk models and technical methods used in ASP analyses and SDP Phase 3 evaluations are generally similar.
  - The SPAR models are typically used in both processes.
  - In addition, both analysis types use the same technical guidelines.
- The ASP Program and SDP serve different functions; therefore, there are some inherent differences in the processes.
  - The SDP provides inputs to the ROP by separately determining the significance of individual licensee performance deficiencies that have impacted plant capabilities or initiating event likelihoods.
  - The ASP program determines the significance of actual events and degraded conditions which may have been the result of multiple licensee performance deficiencies and which may also include those NOT caused by deficient licensee performance.

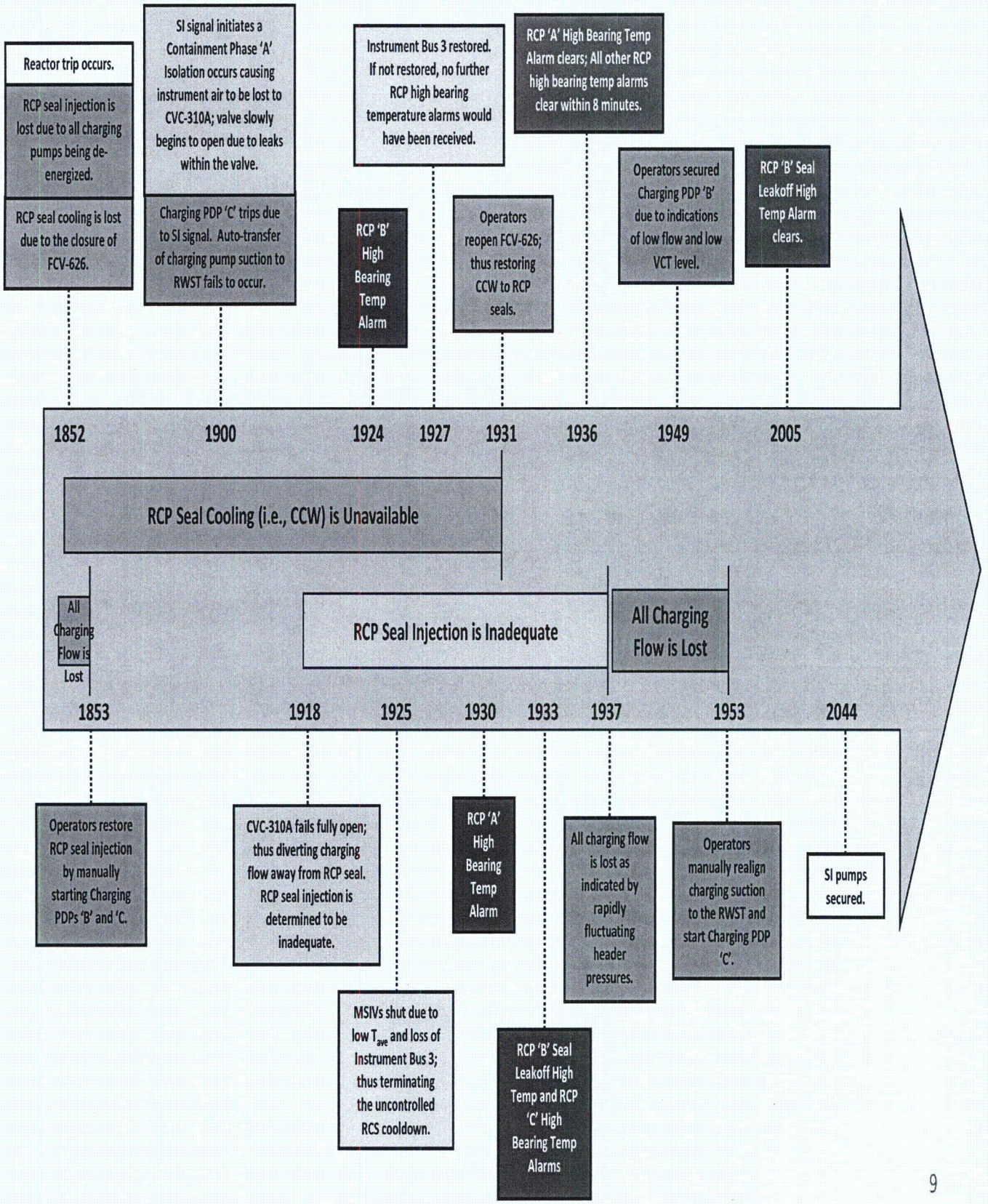
Analysis Status

- The draft ASP analysis has been completed.
  - Internal reviews by Senior ASP Analyst and PRB Branch Chief have been completed.
- Region II and NRR Senior Analysts have provided comments on the draft analysis.
  - Working with the Region and NRR to resolve and incorporate comments.
- A draft communication plan is out for comment.
- Analysis will be sent for formal 60-day licensee review.
  - NRR and Region II will also have the opportunity to provide additional comments.
  - Resolve any comments received from licensee, NRR, and Region II.
- Finalize ASP analysis.
  - If analysis results in significant precursor, inform key stakeholders.
  - The public release of the analysis will be orchestrated by OPA.
  - Provide inputs to AO report and PAR report.
  - Otherwise, issue the analysis per the normal ASP process.

Robinson Event and Key Risk Drivers

Robinson Event Description

- On March 28, 2010, a feeder cable failure to a 4kV non-vital bus caused an arc flash and fire. A subsequent failure of a bus-tie breaker to open and isolate the fault resulted in a loss of power to Reactor Coolant Pump (RCP) B and a subsequent reactor trip.
- Subsequent to the reactor trip, an automatic safety injection (SI) actuation occurred due to an uncontrolled reactor coolant system (RCS) cooldown.
- Plant response was complicated by equipment malfunctions and failure of the operating crew to diagnose plant conditions and properly control the plant.
- During plant restoration a relay was reset which re-initiated the electrical fault and caused a second fire.



Summary of Equipment/Operator Failures

- Equipment Failures
  - A feeder cable failure leads to an arc fault and initial fire causing the failure of the Unit Auxiliary Transformer and non-vital Bus 5.
  - Breaker 24 failed to open causing the loss of non-vital Bus 4.
  - Alternate charging valve CVC-310A opened due the Phase-A containment isolation and air leaks within the valve. This caused seal injection flow to be diverted away from the RCP seals.
  - The charging suction source failed to automatically switch-over from the VCT to the RWST due to instrumentation failure.
- Operator Deficiencies
  - Failed to control the RCS cooldown caused by the opening of the MSR drain valves.
  - Failed (initially) to recognize the closure of component cooling water (CCW) flow return valve from the RCPs.
  - Failed to recognize the RCP seal injection had become inadequate.
  - Failed (initially) to diagnose the failed charging suction switch-over resulting in a loss of charging flow.
  - NLO error caused the loss of Instrument Bus 3.
  - After the plant was stabilized, operators reinitiated the electrical fault causing a second fire because they failed to understand the current status of the electrical system and failed to followed procedures.

Key Modeling Assumptions

- Reactor trip occurred with a subsequent loss of main feedwater.
- RCP seal injection is modeled as failed due to an alternate charging valve opening and diverted flow away from the seals.
- CCW to the RCP thermal barrier heat exchanger was unavailable due to the closure of the flow return valve.
- The loss of all RCP seal cooling (i.e., loss of CCW and injection) is assumed result in a small or medium LOCA consistent with the staff accepted WOG seal model.
- Additional postulated operator errors will strongly affect the results.
  - Operators fail to trip running RCPs during loss of seal cooling.
  - Operators fail to initiate high- or low-pressure recirculation, fail to initiate RCS cooldown/ depressurization, and fail to initiate shutdown cooling mode of RHR.

Important HRA Factors

- Simulator training did not match actual plant response.
  - Operators did not expect the CCW flow return valve (FCV-626) to close for this type of transient.
  - In addition, crew composition and personnel changes were less than ideal (e.g., operators were in positions they did not regularly stand due to proficiency needs and preparation for upcoming outage).
  - These training deficiencies are accounted for in the probability that operators fail to reopen FCV-626 prior to a seal LOCA.
- EOP procedure was deficient in regards to verifying RCP seal injection.
  - Procedure only directs operators to verify that a charging pump is running.
  - The inadequate procedure is strong negative factor affecting the probability that operators fail to trip the remaining running RCPs.
- Command and Control with the control room was poor.
  - Crew supervisors were distracted from oversight of the plant including the awareness of major plant parameters.
  - In addition, supervisors failed to properly manage the frequency and duration of crew updates/briefs during the early portion of the event leading to interruption in the implementation of emergency procedures and distraction the operators.
  - This negative factor affects all human actions (those that occurred or postulated).

From: Chin, Allison
Sent: Friday, March 11, 2011 10:11 AM
To: Burns, Stephen; Dyer, Jim; Doane, Margaret; Virgilio, Martin; Weber, Michael; Ash, Darren; Greene, Kathryn; Boyce, Thomas (OIS); Wiggins, Jim; Johnson, Michael; Leeds, Eric; Haney, Catherine; Miller, Charles; Sheron, Brian; Dean, Bill; McCree, Victor; Satorius, Mark; Collins, Elmo
Cc: Cohen, Miriam; Gallagher, Johanna; Johns, Nancy; Tallarico, Alison
Subject: LPP Extension

Hello All:

The deadline for reviewing your LPP packages and turning in your quartile rankings and vote sheets has been extended to April 8, 2011.

The expanded ERB meeting will take place on April 22, 2011.

Thanks,

ALLISON CHIN, HR SPECIALIST
REACTOR PROGRAM SUPPORT BRANCH, OHR
[PHONE] **301-415-2944**
[FAX] **301-415-3818**
[MAIL STOP] **O3-E17A**
U.S. Nuclear Regulatory Commission

Posted At: Friday, March 18, 2011 7:08 PM
Conversation: itrezzo EPS Backups: 3/18/2011 19:07

Subject: itrezzo EPS Backups: 3/18/2011 19:07

The following 1 contact(s) were updated with current information:

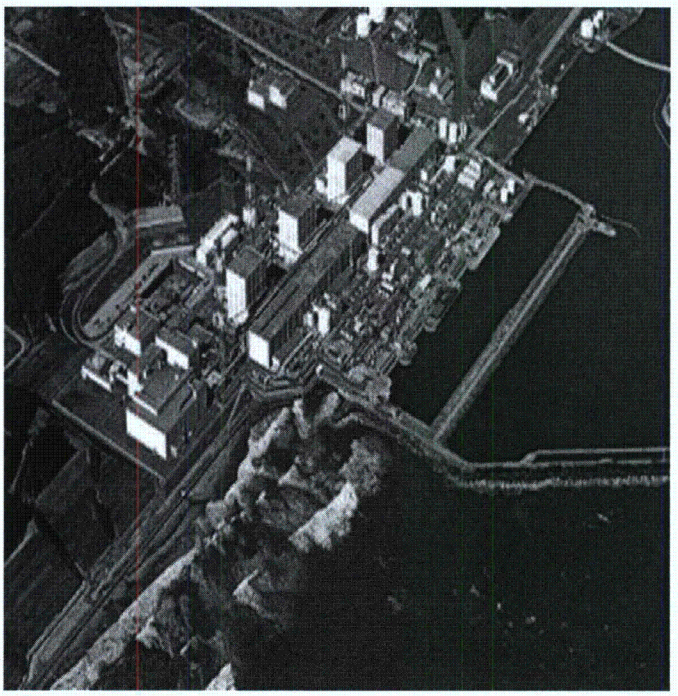
- Dan Dorman (PIN (b)(6); Other: (b)(6))

NOTE: If itrezzo EPS overwrites any important data in your contacts, you can find the original, unchanged contacts attached to this message.

From: McCree, Victor
Sent: Friday, March 18, 2011 4:38 PM
To: McCree, Victor
Subject: POWER POINT SLIDES FOR Fukishima Event - FPL Response.ppt
Attachments: Fukishima Event - FPL Response.ppt

NEXTera ENERGY
DUANE ARNOLD

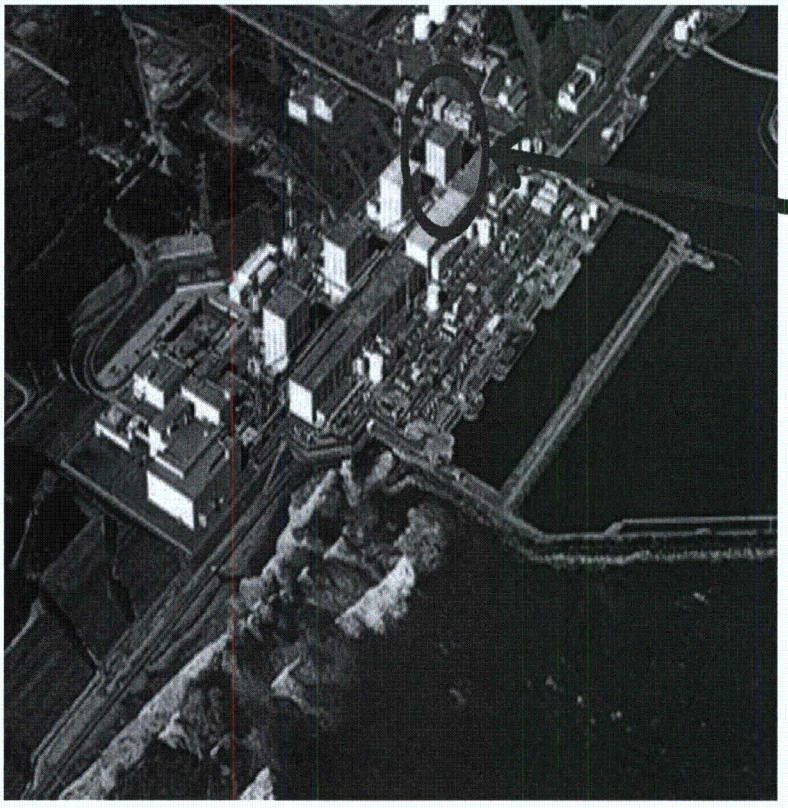
Fukushima Daiichi Nuclear Plant Event Summary and FPL/DAEC Actions



NEXTera ENERGY DUANE ARNOLD

Fukushima Daiichi Nuclear Station

- Six BWR units at the Fukushima Nuclear Station:
  - Unit 1: 439 MWe BWR, 1971 (unit was in operation prior to event)
  - Unit 2: 760 MWe BWR, 1974 (unit was in operation prior to event)
  - Unit 3: 760 MWe BWR, 1976 (unit was in operation prior to event)
  - Unit 4: 760 MWe BWR, 1978 (unit was in outage prior to event)
  - Unit 5: 760 MWe BWR, 1978 (unit was in outage prior to event)
  - Unit 6: 1067 MWe BWR, 1979 (unit was in outage prior to event)



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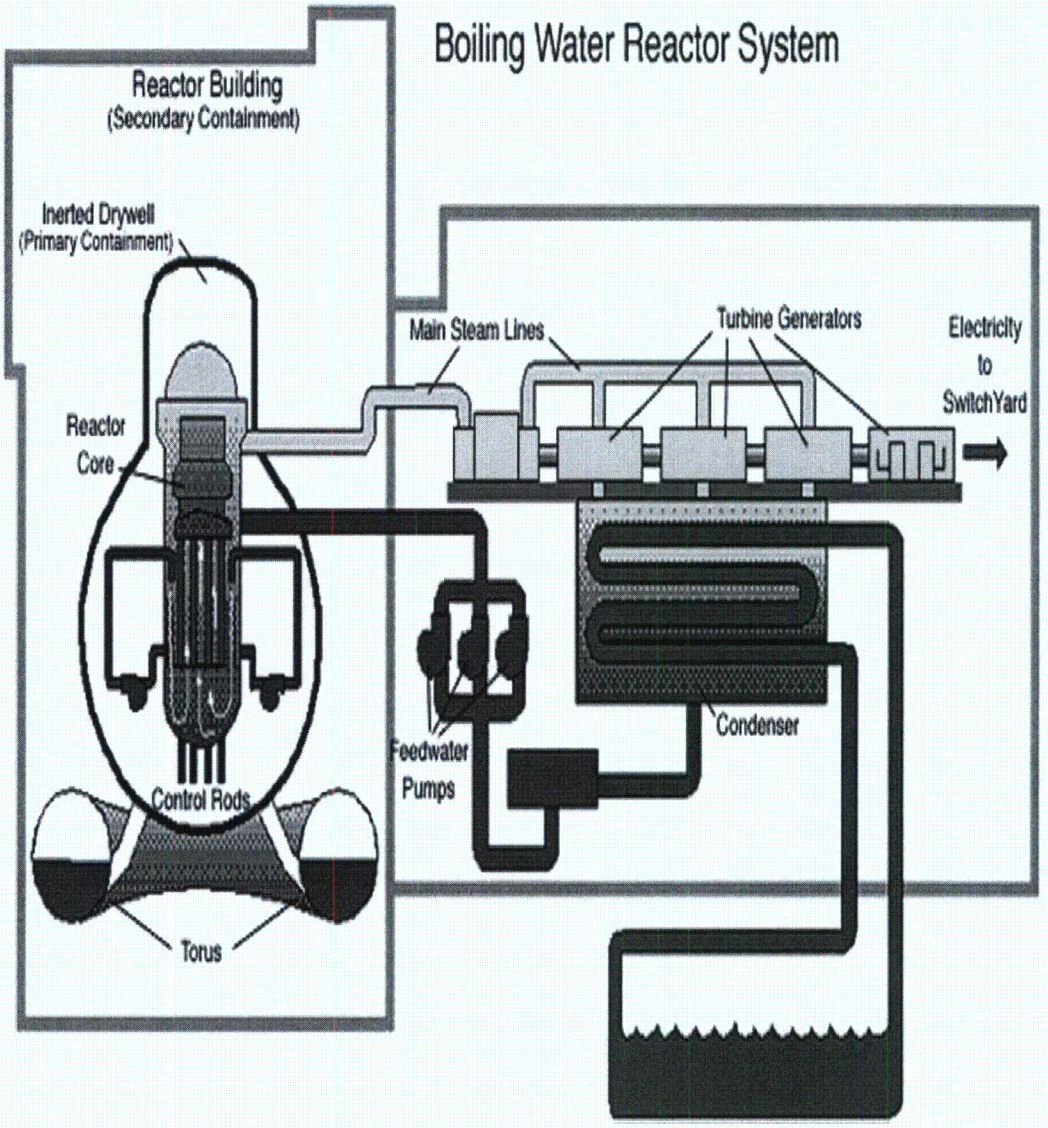
Fukushima Daiichi Unit 1

- Typical BWR 3 and 4 Reactor Design
- Some similarities to Duane Arnold Energy Center



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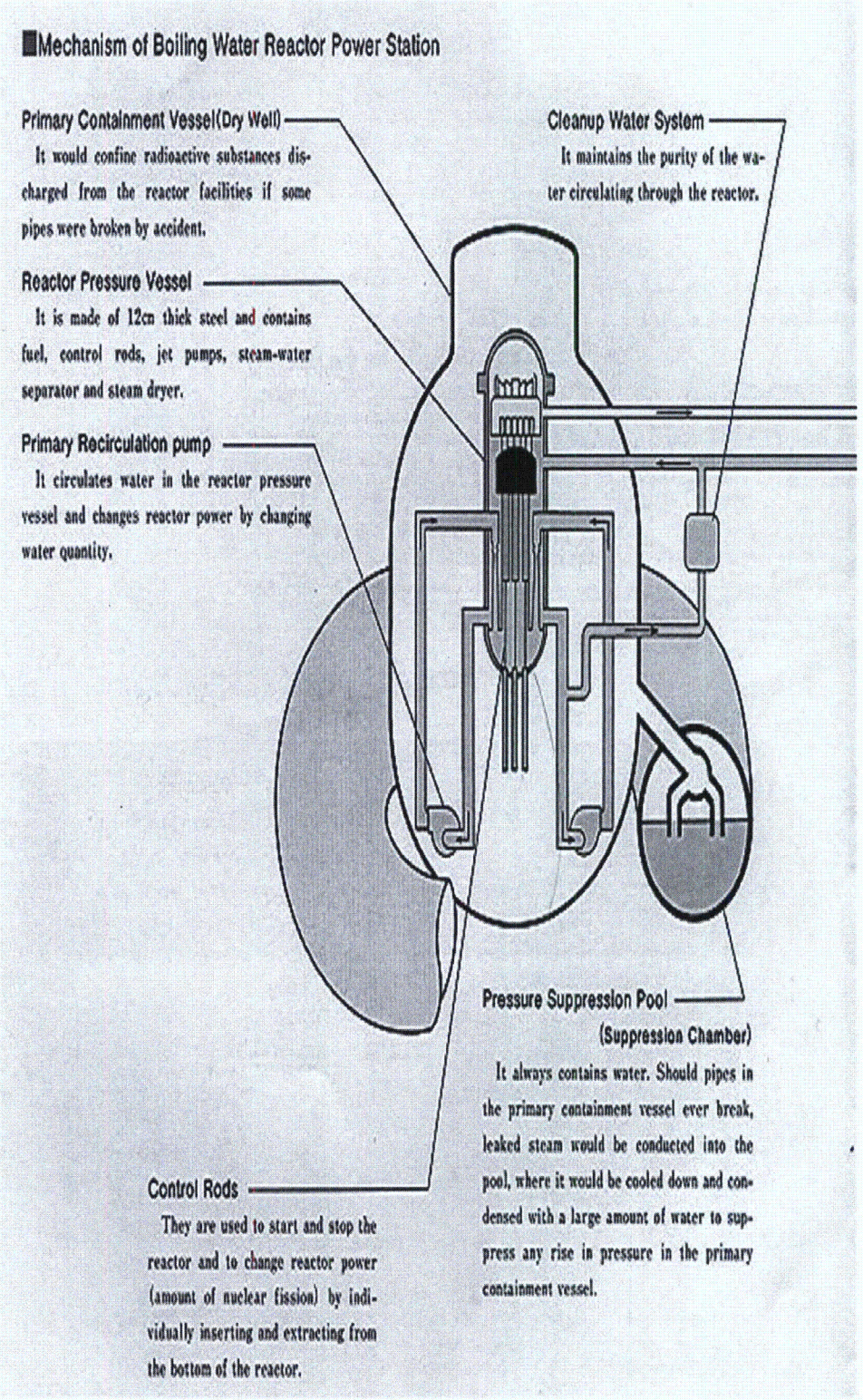
Fukushima Daiichi Unit 1



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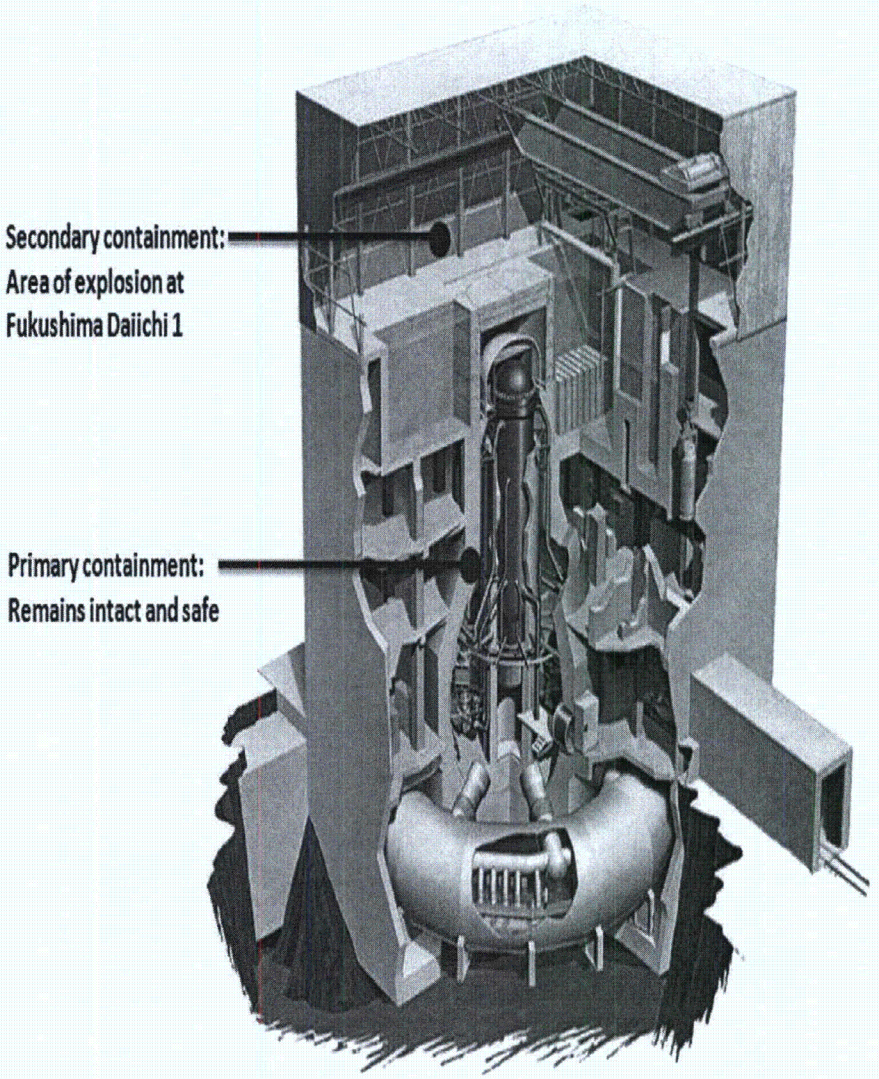
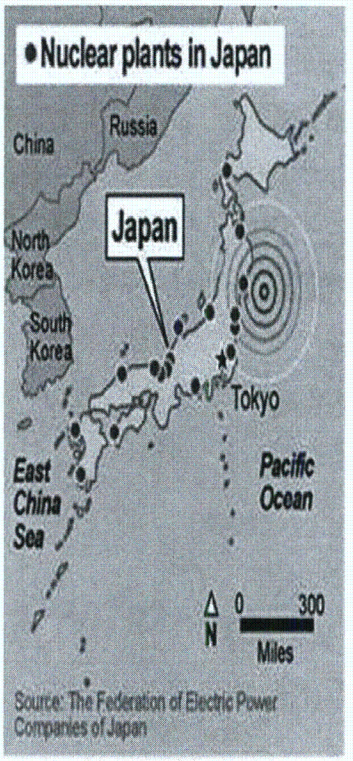
Fukushima Daiichi Unit 1



Boiling Water Reactor Design

Event Initiation

- The Fukushima nuclear facilities were damaged in a magnitude 8.9 earthquake on March 11 (Japan time), centered offshore of the Sendai region, which contains the capital Tokyo.
  - Plant designed for magnitude 8.2 earthquake. An 8.9 magnitude quake is 7 times in greater in magnitude.
- Serious secondary effects followed including a significant tsunami, significant aftershocks and a major fire at a fossil fuel installation.



By Janet Loehrke, USA TODAY

NEXTera ENERGY DUANE ARNOLD

Initial Response

- Nuclear reactors were shutdown automatically. Within seconds the control rods were inserted into core and nuclear chain reaction stopped.
- Cooling systems were placed in operation to remove the residual heat. The residual heat load is about 3% of the heat load under normal operating conditions.
- Earthquake resulted in the loss of offsite power which is the normal supply to plant.
- Emergency Diesel Generators started and powered station emergency cooling systems.
- One hour later, the station was struck by the tsunami. The tsunami was larger than what the plant was designed for. The tsunami took out all multiple sets of the backup Emergency Diesel generators.
- Reactor operators were able to utilize emergency battery power to provide power for cooling the core for 8 hours.
- Operators followed abnormal operating procedures and emergency operating procedures.

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Loss of Makeup

- Offsite power could not be restored and delays occurred obtaining and connecting portable generators.
- After the batteries ran out, residual heat could not be carried away any more.
- Reactor temperatures increased and water levels in the reactor decreased, eventually uncovering and overheating the core.
- Hydrogen was produced from metal-water reactions in the reactor.
- Operators vented the reactor to relieve steam pressure - energy (and hydrogen) was released into the primary containment (drywell) causing primary containment temperatures and pressures to increase.
- Operators took actions to vent the primary containment to control containment pressure and hydrogen levels. Required to protect the primary containment from failure.
- Primary Containment Venting is through a filtered path that travels through duct work in the secondary containment to an elevated release point on the refuel floor (on top of the reactor building).
- A hydrogen detonation subsequently occurred while venting the secondary containment. Occurred shortly after and aftershock at the station. Spark likely ignited hydrogen.

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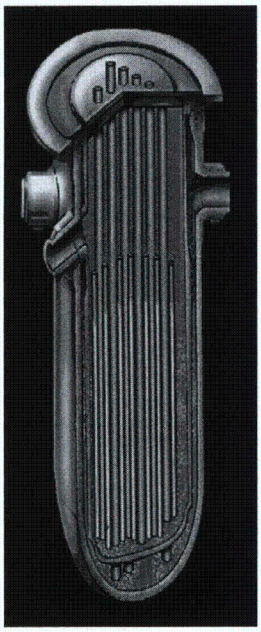
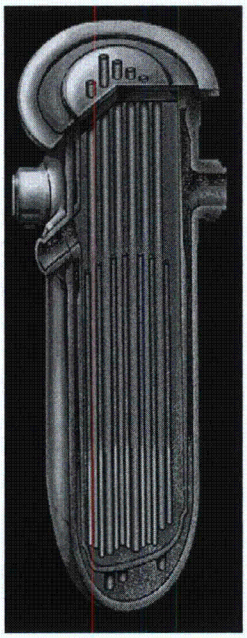
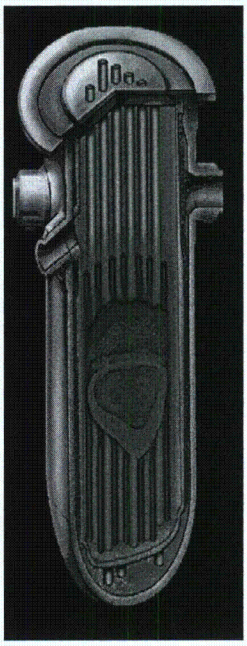
Core Damage Sequence



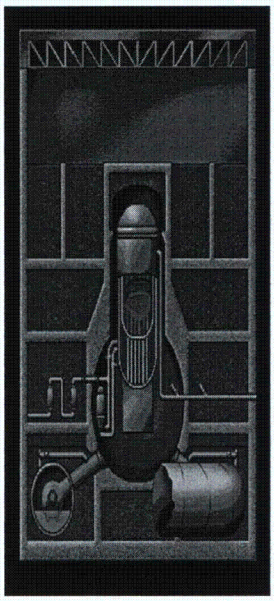
Core Uncovered



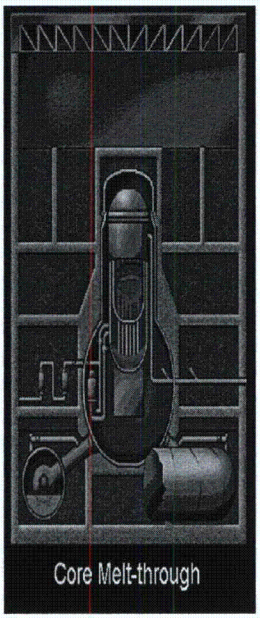
Fuel Overheating



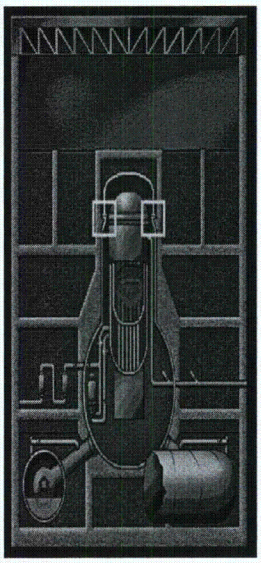
Fuel melting - Core Damaged



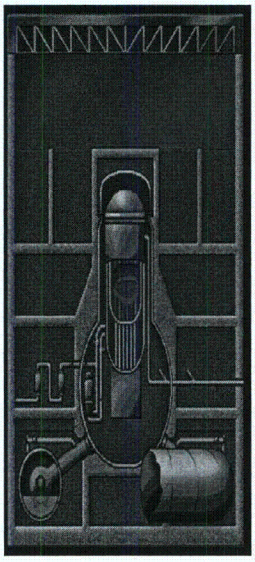
Core Damaged but retained in vessel



Some portions of core melt into lower RPV head



Containment pressurizes. Leakage possible at drywell head



Releases of hydrogen into secondary containment

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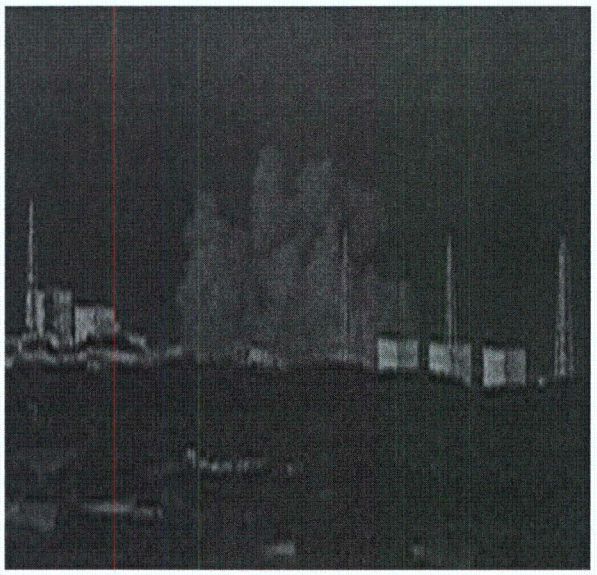
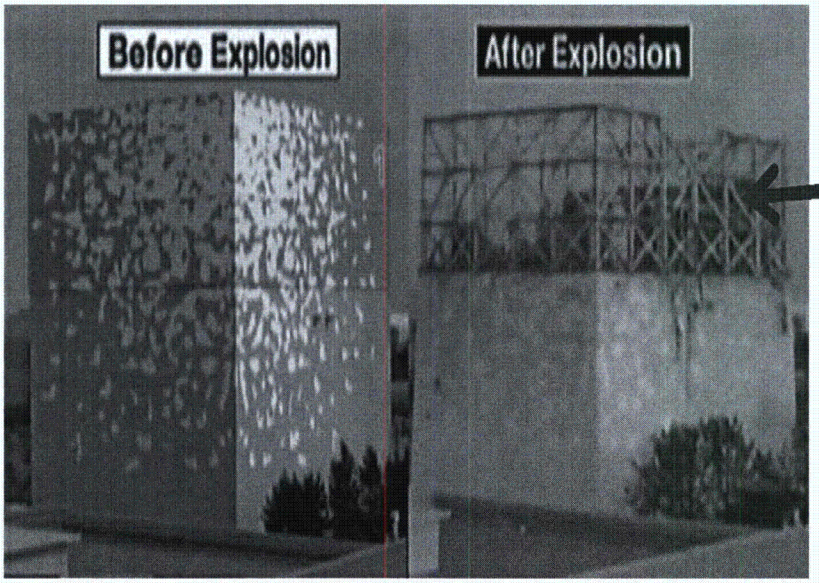
Hydrogen Detonation at Unit 1





Reactor Building

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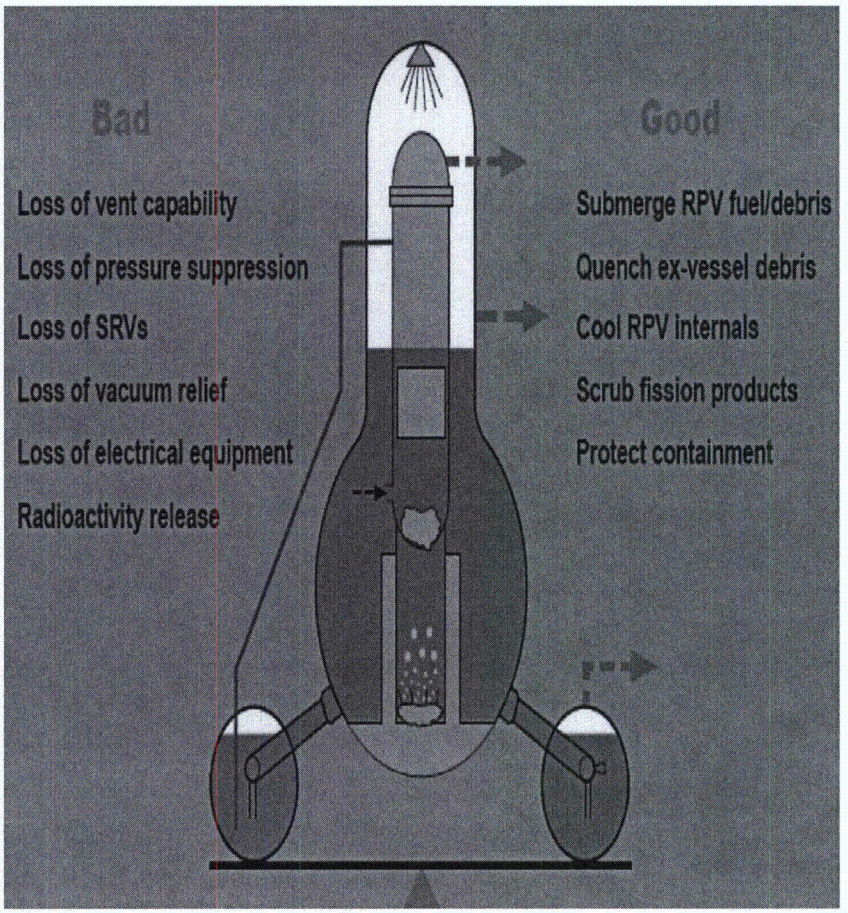
Mitigating Actions

- The station was able to deploy portable generators and utilize a portable pump to inject sea water into the reactor and primary containment.
- Station was successful in flooding the primary containment to cool the reactor vessel and debris that may have been released into the primary containment.
- Boric acid was added to the seawater used for injection. Boric acid is "liquid control rod". The boron captures neutrons and speeds up the cooling down of the core. Boron also reduces the release of iodine by buffering the containment water pH.

Containment Flooding Effects



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Emergency Response

- Equivalent of General Emergency declared to the event at Unit 1.
- Evacuation of public performed within 20 km (13 miles) of plant; approximately 200,000 people evacuated.
- Similar hydrogen detonation subsequently occurred at Unit 3 on Sunday, March 14th (Japan time). Primary containment remained intact at Unit's 1 and 3 throughout the accident. There was considerable damage to the secondary containment (reactor building).
- Highest recorded radiation level at the Fukushima Daiichi site was 155.7 millirem. Radiation levels were subsequently reduced to 4.4 millirem after the after the containment was flooded. The NRC's radiation dose limit for the public is 100 millirem per year.
- Several fatalities occurred at the station along with numerous injured workers.
- Authorities distributed Potassium-iodide tablets to protect the public from potential health effects of radioactive isotopes of iodine that could potentially be released. This is quickly taken up by the body and its presence prevents the take-up of iodine-131 should people be exposed to it.
- Over 300 after shocks have occurred and continue to challenge station response.

FPL/DAEC Response

- The Juno Beach Command Center has been staffed.
- The CNO is in direct contact with INPO, NEI, and the NRC.
- Extensive evaluations are underway to validate design capabilities and vulnerabilities of all FPL units for events such as earthquakes, flooding, and extended Station Blackouts.
- Operators and Emergency Response personnel maintain a high level of readiness to respond to events including severe accidents.
- Procedures are in place to respond to events including abnormal operating procedures, emergency operating procedures, and severe accident management guidelines.
- After 9/11, stations implemented Emergency Management Guidelines designed to optimize response to large scale events such as those experienced at Fukushima.

FPL/DAEC Response

- As part of the 9/11 response, stations took the following additional actions:
  - Procured portable diesel-driven pumps and developed procedures to use the portable pumps to inject water from external sources into the reactor, primary containment, spent fuel pool, hotwell, and condensate storage tanks.
  - Made modifications to the plant to provide connections for using the portable diesel-driven pump.
  - Developed procedures and staged equipment needed to manually open reactor relief valves and containment vent valves under loss of power conditions
- FPL will continue to work with INPO, NEI and the NRC to access lessons learned and additional actions that can be taken to further enhance our readiness for severe accidents.