

NRC FORM 8C
(7-94)
NRCMD 3.57

COVER SHEET FOR CORRESPONDENCE

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MULTI-PAGE CORRESPONDENCE**

GROUP: C RECORDS BEING RELEASED IN-PART

The following types of information are being withheld:

- Ex. 1: Records properly classified pursuant to Executive Order 13526
- Ex. 2: Records regarding personnel rules and/or human capital administration
- Ex. 3: Information about the design, manufacture, or utilization of nuclear weapons
 Information about the protection or security of reactors and nuclear materials
 Contractor proposals not incorporated into a final contract with the NRC
 Other _____
- Ex. 4: Information is considered to be confidential business (proprietary)
 Other _____
- Ex. 5: Draft documents or other pre-decisional deliberative documents (D.P. Privilege)
 Records prepared by counsel in anticipation of litigation (A.W.P. Privilege)
 Privileged communications between counsel and a client (A.C. Privilege)
 Other _____
- Ex. 6: Agency employee PII, including SSN, contact information, birthdates, etc.
 Third party PII, including names, phone numbers, or other personal information
- Ex. 7(A): Copies of ongoing investigation case files, exhibits, notes, ROI's, etc.
 Records that reference or are related to a separate ongoing investigation(s)
- Ex. 7(C): Special Agent or other law enforcement PII
 PII of third parties referenced in records compiled for law enforcement purposes
- Ex. 7(D): Witnesses' and Allegers' PII in law enforcement records
 Confidential Informant or law enforcement information provided by other entity
- Ex. 7(E): Law Enforcement Technique/Procedure used for criminal investigations
 Technique or procedure used for security or prevention of criminal activity
- Ex. 7(F): Information that could aid a terrorist or compromise security

Outside of Scope: - information is outside of the scope of records being requested.

McKenzie, Kieta

From: McNamara, Nancy
Sent: Tuesday, May 19, 2015 7:48 AM
To: Nieh, Ho
Cc: Dorman, Dan; Lew, David; Scott, Michael; Screnci, Diane; Sheehan, Neil; Burritt, Arthur; Setzer, Thomas
Subject: RE: IP3 SIT State & Congressional notifications

Yes, I'm good and I think OCA is too.

From: Nieh, Ho
Sent: Tuesday, May 19, 2015 7:35 AM
To: McNamara, Nancy
Cc: Dorman, Dan; Lew, David; Scott, Michael; Screnci, Diane; Sheehan, Neil; Burritt, Arthur; Setzer, Thomas
Subject: IP3 SIT State & Congressional notifications
Importance: High

Hi Nancy – just checking in to see if you've got what you need to make/coordinate the subject notifications in advance of the NRC press release for the SIT.

Please let me or Mike know if you need any help.

Thanks,

Ho Nieh
Director, Division of Reactor Projects
U.S. Nuclear Regulatory Commission Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406
(610) 337-5229 (Office)
(b)(6) (Mobile)
(610) 337-6928 (Fax)
ho.nieh@nrc.gov

McKenzie, Kieta

From: Scott, Michael
Sent: Wednesday, May 20, 2015 11:37 AM
To: Nieh, Ho; Dorman, Dan; Lew, David; Lorson, Raymond; Trapp, James; Collins, Daniel; Baker, Pamela; Walker, Tracy; Screnci, Diane; Sheehan, Neil; McNamara, Nancy; Tifft, Doug; Klukan, Brett; Bickett, Brice; Nick, Joseph
Subject: DRP UPDATE - WEDNESDAY, MAY 20, 2015

Events

- None

Plants

(b)(6), Outside of Scope

- IP3 – Day one of SIT progressed well. Licensee has identified obstructions at two at locations in drain line running through the switchgear room, and there are indications the deluge bypass valve that drained continuously during the deluge was not designed to stay open continuously. SIT team evaluating these issues.

Outside of Scope



McKenzie, Kieta

From: Scott, Michael
Sent: Friday, May 22, 2015 2:45 PM
To: Nieh, Ho; Dorman, Dan; Lew, David; Lorson, Raymond; Trapp, James; Collins, Daniel; Baker, Pamela; Walker, Tracy; Screnci, Diane; Sheehan, Neil; McNamara, Nancy; Tifft, Doug; Klukan, Brett; Bickett, Brice; Nick, Joseph
Subject: DRP UPDATE - FRIDAY, MAY 22, 2015

Events

- None

Plants

- IP3 – Licensee planning to restart the reactor Sunday, after taking additional steps to ensure adequate drainage from the switchgear room and implementing other compensatory measures to prevent water rising to an unacceptable level in the room. Staff has reviewed their compensatory measures and, provided they are implemented as planned, has no concerns with plant restarting.

Outside of Scope

McKenzie, Kieta

From: Scott, Michael
Sent: Wednesday, May 27, 2015 10:48 AM
To: Nieh, Ho; Dorman, Dan; Lew, David; Lorson, Raymond; Trapp, James; Collins, Daniel; Baker, Pamela; Walker, Tracy; Screnci, Diane; Sheehan, Neil; McNamara, Nancy; Tifft, Doug; Klukan, Brett; Bickett, Brice; Nick, Joseph
Subject: DRP UPDATE - WEDNESDAY, MAY 27, 2015

Outside of Scope

- IP3 – Planning to exit SIT next week pending receipt of additional information from licensee. Potential performance deficiencies regarding the deluge valve solenoid and preventive maintenance on the control building floor drains.

Outside of Scope

McKenzie, Kieta

From: Scott, Michael
Sent: Thursday, June 04, 2015 8:26 AM
To: Nieh, Ho; Dorman, Dan; Lew, David; Lorson, Raymond; Trapp, James; Collins, Daniel; Baker, Pamela; Walker, Tracy; Screnci, Diane; Sheehan, Neil; McNamara, Nancy; Tifft, Doug; Klukan, Brett; Bickett, Brice; Nick, Joseph
Subject: DRP UPDATE - THURSDAY, JUNE 4, 2015

Events

- None

Plants

Outside of Scope

- IP3 – SIT team met with licensee staff yesterday and obtained additional information suggesting risk of problem flooding in the switchgear room is very small. Team will further discuss and consider the information provided and expects to be in position to exit soon (after management debriefs).

Outside of Scope

Schmidt, Wayne

From: Erwin, Kenneth
Sent: Friday, June 05, 2015 12:18 PM
To: Cook, Christopher; Schmidt, Wayne
Cc: Lee, Mike
Subject: RE: IP3 Transformer Deluge actuation estimation of yard drain flow.

Hi Guys,

Yeah I don't have any other info on their model. 4300GPM seems very low and I would think would be bounded by their FHRR LIP reanalysis.

Ken T. Erwin, PMP
Team Leader, Meteorology and Oceanography Team
Hydrology and Meteorology Branch 1
U.S. Nuclear Regulatory Commission
Office of New Reactors
Division of Site Safety and Environmental Analysis
M.S. T7F5
Washington, D.C. 20555
Telephone: (301) 415-7559
Fax: (301) 415-6440

From: Cook, Christopher
Sent: Thursday, June 04, 2015 1:01 PM
To: Schmidt, Wayne
Cc: Erwin, Kenneth
Subject: RE: IP3 Transformer Deluge actuation estimation of yard drain flow.

Wayne,

I just sat thru the IP briefing, and I don't think the site drainage model is setup to resolve discharges this small. For these types of site drainage models (20' x 20' grid cells), 9.6 cfs is a blip and they don't get down to manhole scale.

Ken can add more if he know of something beyond the Flow-2D model at IP.

Chris

From: Schmidt, Wayne
Sent: Thursday, June 04, 2015 10:02 AM
To: Cook, Christopher
Subject: FW: IP3 Transformer Deluge actuation estimation of yard drain flow.

Hi Chris – how are you – forwarded this to you because Ken is out of the office.

From: Schmidt, Wayne
Sent: Thursday, June 04, 2015 10:00 AM

To: Erwin, Kenneth

Subject: IP3 Transformer Deluge actuation estimation of yard drain flow.

Hi Ken – how is everything going?

We are at IP3 looking at the impact of three of deluge systems lighting off. They estimated 4300 gpm into the yard area storm drains. The question we have is do we have any information on good hydraulic analysis assumptions of calculating flowrate and backups in manholes and in corrugated drain piping?

Wayne Schmidt
Senior Reactor Analyst
Region I

610-337-5315 – work

(b)(6) cell }

Siwy, Andrew

From: Burritt, Arthur
Sent: Friday, June 05, 2015 12:36 PM
To: McNamara, Nancy; Tifft, Doug
Cc: Nieh, Ho; Scott, Michael; Setzer, Thomas
Subject: FW: Indian Point 31 Main Transformer

FYI, see highlight below

From: Stewart, Scott
Sent: Friday, June 05, 2015 10:18 AM
To: Burritt, Arthur; Rogge, John
Cc: Bolger, Allyce; Newman, Garrett
Subject: FW: Indian Point 31 Main Transformer

The State of NY has been invited to watch destructive exam of the failed main transformer (see below) We are invited as well, We residents were not planning to travel for this, FYI, Scott

From: Walpole, Robert W [<mailto:rwalpol@entergy.com>]
Sent: Friday, June 05, 2015 9:50 AM
To: Stewart, Scott
Subject: 31 Main Transformer

Scott,

We wanted to let you know our schedule for disassembling the 31 Main Transformer, in case you, or anyone at the NRC would like to observe any of the activities.

Here is the updated scheduled based on this disassembly issues.

1. Disconnect low voltage bushings and boxes – 6/8 (Training building area)
2. Remove shell of transformer – 6/10 (training building area)
3. Remove transformer coil to shipment to G&S facility – 6/15 (Kearny NJ, just south of the Meadowland)
4. Complete physical examination of coils and bushings at G&S facility – 6/19 (Kearny NJ, just south of the Meadowland)
5. Transformer completely removed from IPEC site and work completed – 6/23

Since the state is very interested in this, we had made an offer to the state to allow them to observe any or all of the activities listed above. We do not know if the state will take us up on our offer, but wanted to let you know we made the offer. If you want, I can let you know if the state replies to our offer?

Bob Walpole

Regulatory Assurance Manager

Indian Point Entergy Center
914-254-6710 (Work)

(b)(6)

Siwy, Andrew

From: Stewart, Scott
Sent: Tuesday, June 09, 2015 10:22 AM
To: Burritt, Arthur
Cc: Bolger, Allyce; Newman, Garrett; Setzer, Thomas; Rich, Sarah
Subject: FW: Letter to Chairman Burns re review of Indian Point transformer fire
Attachments: 06 08 15 Sen. Gillibrand letter to NRC Chairman Burns re review of Indian Point transformer fire.pdf

Art, The resident inspectors should not be tasked with inspecting the issues raised by the Senator as they are beyond the scope of baseline inspections. Scott

From: Pickett, Douglas
Sent: Tuesday, June 09, 2015 8:45 AM
To: Dudek, Michael; Guzman, Richard
Cc: Stewart, Scott
Subject: FW: Letter to Chairman Burns re review of Indian Point transformer fire

FYI

From: Rihm, Roger
Sent: Tuesday, June 09, 2015 8:19 AM
To: Burritt, Arthur; Pickett, Douglas
Cc: McNamara, Nancy; Tiff, Doug
Subject: FW: Letter to Chairman Burns re review of Indian Point transformer fire

FYI, this letter hasn't yet been ticketed. I'll be in touch to discuss.

From: Weil, Jenny
Sent: Monday, June 08, 2015 8:11 PM
To: Rihm, Roger
Subject: Fw: Letter to Chairman Burns re review of Indian Point transformer fire

FYI

Sent via BlackBerry
Jenny Weil
Congressional Affairs Officer
U.S. Nuclear Regulatory Commission
(b)(6) (cell)
301-415-1691 (office)

From: Kelly, Alyson (Gillibrand) [mailto:Alyson_Kelly@gillibrand.senate.gov]
Sent: Monday, June 08, 2015 02:05 PM
To: Weil, Jenny
Cc: Baugh, Jordan (Gillibrand) <Jordan_Baugh@gillibrand.senate.gov>

Subject: Letter to Chairman Burns re review of Indian Point transformer fire

Hi Jenny,

I hope all is well. I'm forwarding to your attention the attached letter from Sen. Gillibrand to Chairman Burns regarding the NRC's review of the recent transformer fire incident at Indian Point Energy Center. Thank you for your assistance in sharing this with Chairman Burns, and please let me know if you have any questions.

Best wishes,
Alyson

--
Alyson G. Kelly
Legislative Aide
Office of U.S. Senator Kirsten Gillibrand (NY)
478 Russell Senate Office Building
Washington, DC 20510
Tel: 202-224-4451
www.gillibrand.senate.gov

Sign up for Senator Gillibrand's newsletter:
<http://www.gillibrand.senate.gov/newsletter/>

Schmidt, Wayne

From: Schmidt, Wayne
Sent: Wednesday, June 10, 2015 11:08 AM
To: 'Bretti, John F'
Subject: Alternate Shutdown

Good Morning John – we have not reached any conclusions yet, but do have a couple of questions on ASSS if a flood were to take out the 480 V Switchgear.

- Could you please send me a copy of your event tree for ASSS and the associated cutsets and basic event values.
- Do you assume that one of the two charging pumps is needed for makeup if the RCPs are not leaking greater than 21 gpm each?
- I suspect the one CCW pump and one SW pump are needed to support the one operating charging pump.
- Operator actions are needed in the PAB and TB to align the alternate power from MCC312A? Is there an overall HRA for these actions?

Wayne Schmidt
Senior Reactor Analyst
Region I

610-337-5315 – work

(b)(6) cell

Siwy, Andrew

From: Scott, Michael
Sent: Wednesday, June 10, 2015 12:37 PM
To: Kennedy, Silas
Cc: Nieh, Ho
Subject: RE: DRP UPDATE - WEDNESDAY JUNE 10, 2015

Well done Silas!

Thanks again for covering.

Mike

From: Kennedy, Silas
Sent: Wednesday, June 10, 2015 9:43 AM
To: Dorman, Dan; Lew, David; Nieh, Ho; Scott, Michael; Lorson, Raymond; Trapp, James; Collins, Daniel; Nick, Joseph; Bickett, Brice; Klukan, Brett; McNamara, Nancy; Tift, Doug; Screnci, Diane; Sheehan, Neil
Cc: Schroeder, Daniel; Burritt, Arthur; Dentel, Glenn; Bower, Fred; McKinley, Raymond; Powell, Raymond
Subject: DRP UPDATE - WEDNESDAY JUNE 10, 2015

Outside of Scope

Other

- IP3 – SIT exit meeting postponed due to awaiting licensee testing on deluge valves and awaiting license response to some technical questions including questions about the switchgear room flooding analysis.

V/R

Silas

Silas Kennedy

Chief, Project Branch 6

Region I, Division of Reactor Projects

Providing nuclear oversight of Three Mile Island, Beaver Valley, and Oyster Creek

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(b)(6) mobile

6-10

From: Schmidt, Wayne
To: Scott, Michael
Cc: Nieh, Ho; Dentel, Glenn; Setzer, Thomas; Burritt, Arthur
Subject: RE:
Date: Friday, May 15, 2015 10:54:43 AM

I think it did.

From: Scott, Michael
Sent: Friday, May 15, 2015 10:38 AM
To: Schmidt, Wayne
Cc: Nieh, Ho; Dentel, Glenn; Setzer, Thomas; Burritt, Arthur
Subject: RE:

Wayne: Think we should state whether the licensee's assumptions allowed for/included water removal from the swgr room through the gap beneath the closed connecting door with the EDG room.

Thanks

Mike

From: Schmidt, Wayne
Sent: Friday, May 15, 2015 10:25 AM
To: Cahill, Christopher; Cahill, Christopher; Arner, Frank; Weerakkody, Sunil; Wong, See-Meng; Circle, Jeff; Setzer, Thomas
Cc: Lorson, Raymond; Trapp, James; Nieh, Ho; Scott, Michael; Lew, David; Dorman, Dan
Subject:

Please see the attached.

Sunil, See-Meng and Jeff – the upper bound hits the SIT/AIT overlap.

Wayne Schmidt
Senior Reactor Analyst
Region I

610-337-5315 – work

(b)(6) cell

C-11

Siwy, Andrew

From: Nieh, Ho
Sent: Monday, May 18, 2015 4:00 PM
To: Dean, Bill; MorganButler, Kimyata; Burritt, Arthur; Setzer, Thomas; Scott, Michael; Lew, David; Dorman, Dan
Cc: Santos, Cayetano; Johnson, Michael; Morris, Scott; Evans, Michele; Uhle, Jennifer
Subject: RE: Question on IP Transformer Fire Followup

Here are some points to note:

- While the transformers are non-safety-related components, NRC reviews failures to the extent that the failure might impact a safety-related system, or cause an unplanned power change or unplanned scram (both are Performance Indicators in the ROP). NRC regional inspectors would review such failures through PIR samples, maintenance rule samples, or a supplemental inspection if the failure caused a PI to cross a threshold.
- Although the transformers are non-safety-related, they are within the scope of the Maintenance Rule because their failure could result in a plant scram. Such components are typically monitored at the "plant" level rather than the "component" level (i.e., how many times the failure has caused a plant scram). If there's an adverse trend, then a licensee may choose under the maintenance rule to monitor at the component level (i.e., how many times it fails, regardless of whether there was a scram).
- The transformer failure events at IP are: 04/2007 U3; 11/2010 U2; 02/2012 U3; and most recently 05/2015 U3
- With respect to this most recent failure, the region intends to review the licensee's root cause evaluation, which is expected by the end of June. We would most likely do this under a PIR sample or Event Follow-up. If there is some common thread to previous failures, then I could foresee pursuing a performance deficiency in corrective actions for previous failures.
- Note that the Special Inspection we are starting tomorrow is focused on the water in-leakage to a vital switchgear room and not on the transformer failure.

Hope this helps. Please let me know if this is what you were looking for.

Thanks,

Ho Nieh
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U.S. Nuclear Regulatory Commission Region 1
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ho.nieh@nrc.gov

From: Dean, Bill
Sent: Monday, May 18, 2015 3:09 PM
To: MorganButler, Kimyata; Burritt, Arthur; Setzer, Thomas; Scott, Michael; Nieh, Ho; Lew, David; Dorman, Dan

Cc: Santos, Cayetano; Johnson, Michael; Morris, Scott; Evans, Michele; Uhle, Jennifer
Subject: Re: Question on IP Transformer Fire Followup

I would note that a few years ago, there was a trend in transformer failures and industry initiated an enhanced reliability program to reduce the occurrence of such events. Overall, I would say from my perspective the trend has lessened, but certainly not zero free. There has been enhanced monitoring programs of transformer parameters and many licensees have spent \$Ms on new transformers across the country.

Bill Dean
Director, Office of Nuclear
Reactor Regulation
USNRC

From: MorganButler, Kimyata
Sent: Monday, May 18, 2015 12:28 PM
To: Burritt, Arthur; Setzer, Thomas; Scott, Michael; Nieh, Ho; Lew, David; Dorman, Dan
Cc: Santos, Cayetano; Dean, Bill; Johnson, Michael
Subject: FW: Question on IP Transformer Fire Followup

Good Afternoon,

The Chairman asked a similar question during the briefing RI gave him on the recent IP3 transformer failure last week. Please see the follow-up below. Would you mind providing a short paragraph or a few bullets to answer his questions? It would be great if we could get something back to the Chairman's office later today or tomorrow. Please let me know if you have any questions.

Thanks,

Kim

From: Gilles, Nanette
Sent: Monday, May 18, 2015 10:42 AM
To: Santos, Cayetano; MorganButler, Kimyata
Subject: Question on IP Transformer Fire Followup

Kim,

With regard to the transformer fire at IP and their history of transformer problems, the Chairman was interested to know if we had any plans to assess the transformer failure from the perspective of determining if there is a trend here and what, if any, impact on safety this might have. He understands that the recent transformer issue was not a nuclear safety matter, but to the extent that the transformer might be, for example, a BOP piece of equipment that is subject to the maintenance rule, is there a regulatory issue that staff plans to follow up on? Please note that he is just asking for information (not expressing any opinions), making sure that he understands all of the aspects of the issue, because he is likely to get asked himself.

Thanks,
Nan

Nanette V. Gilles
Technical Assistant for Reactors
Office of Chairman Burns
U.S. Nuclear Regulatory Commission
301-415-1830

Trapp, James

From: Krohn, Paul
Sent: Monday, May 18, 2015 11:16 AM
To: Trapp, James
Subject: RE: Indian Point 3 SIT - Action Requested

Jim,

EB2 has no one to offer. We are stretched fairly thin. For the week of 5/18 - 2 people on external training, 2 people on AL, one person in RII on Brunswick backfill, and 2 in office for week.

Outside of Scope

Paul

From: Trapp, James
Sent: Friday, May 15, 2015 6:07 AM
To: Jackson, Donald; Krohn, Paul; Rogge, John; Gray, Mel; Dimitriadis, Anthony; Noggle, James; Arner, Frank; Schmidt, Wayne; Cook, William; Cahill, Christopher
Cc: Lorson, Raymond
Subject: Indian Point 3 SIT - Action Requested
Importance: High

Please check schedules and see if we have inspector availability to support this team scheduled for departure next week. Thank you.

From: Nieh, Ho
Sent: Thursday, May 14, 2015 6:06 PM
To: Lorson, Raymond; Trapp, James
Cc: Scott, Michael
Subject: IP3 SIT
Importance: High

Ray, Jim – we briefed Dan Dorman and aligned on launching an SIT next week. Safety concern is fire water in-leakage to 480-volt safety switchgear room.

0309 evaluation met the unexpected system interaction criteria and the risk estimate was in the no-inspection/SIT overlap range. Wayne Schmidt did an awesome job supporting this.

Mike and I think that this effort should have a team manager, and that the best way to identify one would be to ask the DRP/DRS BCs to identify a team manager tomorrow.

That team manager would then solicit for support ... looking for folks with fire protection and piping system hydraulics expertise. Envision a team of 2 or 3 persons.

Press release being developed for Monday.

Planning for team onsite either Tuesday or Wednesday.

We're getting the ball rolling on drafting a charter.

Ho Nieh
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McKenzie, Kieta

From: Sheehan, Neil
Sent: Monday, May 18, 2015 10:33 AM
To: Nieh, Ho
Cc: Scott, Michael; Dentel, Glenn
Subject: RE: Draft of blog post on Indian Point Special Inspection
Attachments: IndianPointSpecialInspectionBlogPost.5-2015.docx

Good comments, Ho

The blog post is intended to be more colloquial and complementary of the press release, which is a more formal communications vehicle. I like the idea of including some background information on the decision process and have added that.

The latest version with your comments and Mike's is attached.

Where do we stand on which day the SIT would begin?

-----Original Message-----

From: Nieh, Ho
Sent: Friday, May 15, 2015 5:35 PM
To: Sheehan, Neil; Scott, Michael; Dentel, Glenn
Subject: RE: Draft of blog post on Indian Point Special Inspection

Neil - this looks good. Just a couple comments.

1. Regarding the 1" to 2" mention in the press release, I'm not entirely opposed to it. I was reluctant to use it because I heard varying reports on how much water was there. If we're confident it was 1" to 2", then use it for context in the press release and in the blog. Or, you could say "...an inch or so..."

2. The blog post is very similar to the press release. Not exactly sure what OPA's communication objectives are for blogs, but if you wanted to provide readers with more information about our processes, I'd suggest including something akin to the following: "NRC inspectors apply risk insights and their specific knowledge of the power plant to determine what type of follow up inspection to perform after an event. In this case, the NRC decided to do a Special Inspection, which is the first level of "reactive" inspection performed in response to an event. The NRC conducts reactive inspections to independently evaluate and assess what occurred during an event. These reactive inspections also look at how well the licensee responded to the event as well the licensee's corrective actions take to fix any safety problems. For more significant events, the NRC may perform an Augmented Inspection Team or an Incident Investigation Team. You can learn more about the NRC's reactive inspection program by looking at [insert MC 0309 and MD 8.3 references here]"

Just a few thoughts to make the blog a bit more informative and to get the thought of independent evaluation in there.

Thanks,

Ho Nieh
Director, Division of Reactor Projects

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From: Sheehan, Neil
Sent: Friday, May 15, 2015 2:26 PM
To: Nieh, Ho; Scott, Michael; Dentel, Glenn
Subject: Draft of blog post on Indian Point Special Inspection

Here's a draft of the blog post that would go up in conjunction with the press release. I would welcome feedback. I know Ho didn't want to say there were a few inches on the floor in the press release, but I think we need to quantify the amount somehow, otherwise people could be left with the impression that it was much larger total than was present.

Ray Lorson has already looked at this.

Siwy, Andrew

From: Scott, Michael
Sent: Monday, May 18, 2015 4:31 PM
To: MorganButler, Kimyata
Subject: RE: IP Reactive Inspection - Alignement w/NRR Director

Outside of Scope

From: MorganButler, Kimyata
Sent: Monday, May 18, 2015 4:11 PM
To: Scott, Michael
Subject: FW: IP Reactive Inspection - Alignement w/NRR Director

FYI-

From: MorganButler, Kimyata
Sent: Monday, May 18, 2015 3:59 PM
To: Nieh, Ho
Cc: Burritt, Arthur; DiPaolo, Eugene; McNamara, Nancy
Subject: RE: IP Reactive Inspection - Alignement w/NRR Director

Hi Ho,

Outside of Scope

Outside of Scope

Kimyata Morgan Butler
Executive Technical Assistant
Office of the Executive Director for Operations
US Nuclear Regulatory Commission
301-415-0733 (office)

(b)(6)

(bb)

From: Nieh, Ho
Sent: Monday, May 18, 2015 2:40 PM
To: McNamara, Nancy; MorganButler, Kimyata
Cc: Burritt, Arthur
Subject: FW: IP Reactive Inspection - Alignment w/NRR Director
Importance: High

Nancy – any further communication with NY State or NY Congressional delegations that you need support from DRP?
We're sending the press release out soon.

Kim – let me know if you need any info for informing the Commission offices.

Thanks,

Ho Nieh
Director, Division of Reactor Projects
U.S. Nuclear Regulatory Commission Region 1
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From: Dorman, Dan
Sent: Monday, May 18, 2015 2:33 PM
To: Nieh, Ho; Scott, Michael; Burritt, Arthur
Cc: Lew, David; Sheehan, Neil; Screnci, Diane; McNamara, Nancy; Tiff, Doug; Lorson, Raymond; Trapp, James
Subject: IP Reactive Inspection - Alignment w/NRR Director

All,

I just spoke with Bill Dean regarding alignment on the reactive inspection for the IP Unit 3 transformer fire and associated liquid accumulation in the switchgear room. Bill and I aligned on a Special Inspection Team as the appropriate NRC response. Brian Holian (acting for Mike Johnson) raised the issue at the Friday EDO morning meeting and Bill (now acting for Mike) repeated it this morning. He will verify that OEDO staff has informed the Commission offices.

Dan

Schmidt, Wayne

From: Schmidt, Wayne
Sent: Friday, May 15, 2015 1:21 PM
To: Trapp, James
Subject: RE: Final CCDP Estimate Analysis

It is in the overlap

From: Trapp, James
Sent: Friday, May 15, 2015 1:16 PM
To: Schmidt, Wayne
Cc: Arner, Frank
Subject: RE: Final CCDP Estimate Analysis

Wayne - > 1E-5 is in the AIT range and IMC 0309 requires the Director of NRR to concur on the reactive team inspection. We good with 2E-5?

From: Schmidt, Wayne
Sent: Friday, May 15, 2015 12:11 PM
To: Cahill, Christopher; Cahill, Christopher; Arner, Frank; Weerakkody, Sunil; Wong, See-Meng; Circle, Jeff; Setzer, Thomas; Zoulis, Antonios
Cc: Lorson, Raymond; Trapp, James; Nieh, Ho; Scott, Michael; Lew, David; Dorman, Dan
Subject: Final CCDP Estimate Analysis

Please see the attached update, based on comments from Chris, Frank and Mike.

I discussed this with Sunil, Jeff Mitman and Antonios in DRA and they were in general agreement with See-Meng's position.

From: Schmidt, Wayne
Sent: Friday, May 15, 2015 10:58 AM
To: Christopher.Cahill@nrc.gov; Christopher.Cahill@nrc.gov; 'Frank Arner'; Weerakkody, Sunil; Wong, See-Meng; Circle, Jeff; 'Thomas Setzer'
Cc: Raymond Lorson (Raymond.Lorson@nrc.gov); James.Trapp@nrc.gov; Nieh, Ho; Scott, Michael; David.Lew@nrc.gov; Dorman, Dan
Subject: RE:

I discussed this issue with See-Meng and he was agreeable to an SIT, with the standard stipulation that, if the team finds anything that significantly differs from the initial assumptions, the option to upgrade to an AIT exists.

From: Schmidt, Wayne
Sent: Friday, May 15, 2015 10:25 AM
To: Christopher.Cahill@nrc.gov; Christopher.Cahill@nrc.gov; 'Frank Arner'; Weerakkody, Sunil; Wong, See-Meng; Circle, Jeff; 'Thomas Setzer'
Cc: Raymond Lorson (Raymond.Lorson@nrc.gov); James.Trapp@nrc.gov; Nieh, Ho; Scott, Michael; David.Lew@nrc.gov; Dorman, Dan
Subject:

Please see the attached.

Sunit, See-Meng and Jeff – the upper bound hits the SIT/AIT overlap.

Wayne Schmidt
Senior Reactor Analyst
Region I

610-337-5315 – work

(b)(6) cell

Siwy, Andrew

From: Trapp, James
Sent: Saturday, May 16, 2015 7:48 AM
To: Lew, David; Nieh, Ho; Lorson, Raymond
Cc: Scott, Michael; Dorman, Dan
Subject: Re: IP3 Transformer Deluge IMC 0309 Review

The alternate safe shutdown failure probability come out of the SPAR model and the license PRA. The performance shaping factors would likely be somewhat similar for the HEP of the fire, since while the T=0 point would be delayed in this case, the loss of all power to the operators would start at time=0 in both cases (operators wouldn't see it coming). The decay heat difference and associate time to place alternate shutdown in service would likely be minimal.

We can check, but I wouldn't think the fire water storage tank would limit the available capacity of the deluge system. It provides the suction source for the diesel fire pump, but there are multiple other sources of fire header supply that would not be limiting.

On: 16 May 2015 07:06, "Lew, David" <David.Lew@nrc.gov> wrote:

Another question on ASS failure probability (.2 vs .04). Would our assumption of 1 in 5 failure or the licensee's of 1 in 25 be affected if the onset of the event be delayed by 100 minutes? That is, ASS won't be required until the water reaches the MCCs, when greater staffing will be available and decay heat would be lower. Lastly, what is the size of the fire water storage tank? That is, does it store more than 400,000 gallons.

On: 15 May 2015 21:58, "Lew, David" <David.Lew@nrc.gov> wrote:

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Dan, Dave - draft 0309 for your info. Of course, feel free to comment.

Ray, Jim - not sure if you've seen the current draft, please let me know if you have any comments. Hope to be in a position to finalize this on Monday.

Thanks,

Ho Nieh
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ho.nieh@nrc.gov

From: Newman, Garrett
Sent: Friday, May 15, 2015 4:08 PM
To: Nieh, Ho
Cc: Scott, Michael; Burritt, Arthur; Dentel, Glenn; Setzer, Thomas; Pinson, Brandon; Schussler, Jason; Stewart, Scott; Bolger, Allyce; Schmidt, Wayne
Subject: IP3 Transformer Deluge IMC 0309 Review

Ho,

Attached is the IMC 0309 review prepared by Glenn, Tom, Wayne, and myself for the deluge water intrusion event at Indian Point 3 on Saturday.

Garrett A. Newman
Resident Inspector – Indian Point
914-739-9360 (o)

(b)(6) [redacted] (c) 1

McKenzie, Kieta

From: Trapp, James
Sent: Saturday, May 16, 2015 8:07 AM
To: Lew, David
Cc: Lorson, Raymond; Nieh, Ho; Scott, Michael
Subject: Re: IP3 Transformer Deluge IMC 0309 Review

The real uncertainty lies in the 1E-4 value for not securing the deluge and not taking flood mitigation measures in the switchgear room. This value was selected as a best estimate without a foundation in the PRA. Therefore the uncertainty band associated with this risk assessment is large.

That said, the importance of this single point vulnerability and associate deterministic factors would in my opinion certainly support the SIT look.

On: 16 May 2015 07:06, "Lew, David" <David.Lew@nrc.gov> wrote:

Another question on ASS failure probability (.2 vs .04). Would our assumption of 1 in 5 failure or the licensee's of 1 in 25 be affected if the onset of the event be delayed by 100 minutes? That is, ASS won't be required until the water reaches the MCCs, when greater staffing will be available and decay heat would be lower. Lastly, what is the size of the fire water storage tank? That is, does it store more than 400,000 gallons.

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Cc: Scott, Michael; Burritt, Arthur; Dentel, Glenn; Setzer, Thomas; Pinson, Brandon; Schussler, Jason; Stewart, Scott; Bolger, Allyce; Schmidt, Wayne
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Garrett A. Newman
Resident Inspector – Indian Point

914-739-9360 (o)
[redacted] (b)(6) (c) 1

McKenzie, Kieta

From: Lorson, Raymond
Sent: Saturday, May 16, 2015 11:00 AM
To: Lew, David; Trapp, James; Nieh, Ho
Cc: Scott, Michael; Dorman, Dan
Subject: RE: IP3 Transformer Deluge IMC 0309 Review

I think that the risk estimate reflects a range that is appropriate to inform the necessary NRC follow-up inspection. Having said that, I don't think that there is enough factual information at this point to identify whether our assessment is overly conservative or not; we should add as a part of the charter to refine the risk estimate of the event and of the "PD" (if we have a PD) once all of the factual information is known. Whatever we communicate should reflect the uncertainty in the analysis.

If the PD ends up being inadequate flood protection for the switchgear room then potentially other IE scenarios - precipitation events, pipe breaks associated with systems in the room, backflow from the deluge system etc would all come into play and affect the significance of any subsequent PD.

Once the inspection is complete we will have better information, although perhaps not perfect, to assess the risk. Of course in the final analysis there could still be some uncertainty in which case, we would use our RASP guidance to help us sort this out.

Ray

From: Lew, David
Sent: Saturday, May 16, 2015 9:16 AM
To: Trapp, James; Nieh, Ho; Lorson, Raymond
Cc: Scott, Michael; Dorman, Dan
Subject: Re: IP3 Transformer Deluge IMC 0309 Review

It's not clear to me that the operators would not see it coming. In this case, they did. I agree with you that the $10e-4$ is highly uncertain. But I don't see that the initiating frequency is one as assumed here. A transformer fire event did not occur which require the operation of the deluge system for more than 100 minutes. I guess my gut says that this is an overly conservative risk estimate.

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Subject: IP3 Transformer Deluge IMC 0309 Review

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Garrett A. Newman
Resident Inspector – Indian Point
914-739-9360<tel:914-739-9360> (o)
(b)(6) (c)

Trapp, James

From: Lorson, Raymond
Sent: Saturday, May 16, 2015 4:18 PM
To: Trapp, James
Subject: RE: IP3 Transformer Deluge IMC 0309 Review

Agreed. I think that the event points to a potential vulnerability that we should inspect. Will refine the risk assessment, if needed, once we get better information from the inspection. At this point there are a lot of assumptions and information (of some level of quality) that we need to verify. I would rather not speculate and just do the inspection to understand the "nuts and bolts" of the issue.

My new years resolution was to refrain from assessing and speculating on events with incomplete and preliminary information; I am trying hard to fulfill my pledge!

Ray

From: Trapp, James
Sent: Saturday, May 16, 2015 3:37 PM
To: Lorson, Raymond
Subject: Re: IP3 Transformer Deluge IMC 0309 Review

One thought I had was the SRAs considered both the failure to secure deluge and the failure to identify the water as dependent events. If we consider things like independent security patrols or operator rounds we may have consider these as independent events and "and" gated them together. If we assumed a 1E-3 for both and a .2 for safe shutdown - we could be as low as 2E-7.

I have no issue with the call since there is a significant single point vulnerability. The risk numbers are so uncertain they should play a small role in risk informing our decision.

On: 16 May 2015 11:40, "Lorson, Raymond" <Raymond.Lorson@nrc.gov> wrote:
Dave et al:

A couple of other thoughts/comments to clear up the questions and reflect some of the uncertainties and questions involved:

The 1E-4 is the assumed probability of failure of the operators to diagnose the event and take action to secure the deluge system; this number reflects a lower estimate by an order of magnitude than is commonly used in HEP failure analysis; (i.e. 10-3 would be a more typical value, but reducing it by an order of magnitude accounts for an increase in time for operators to perform the necessary actions and the simplicity of the actions). So we are in effect saying that the operators would be able to successfully secure the deluge system before flooding the sw rooms every 9999 out of 10000 challenges;

To get the risk of the event we did not assume an IE frequency of 1. We multiplied the CDF involving the ASS failure probability (we vary from energy in this number) by the IE frequency of 1E-4. In other words we assume a deluge system action frequency of 1 (it did actuate) multiplied by the failure probability of operators to secure the system before flooding the room.

We need to understand why or how there was up to 2 inches of water in the room; seems to call into question whether the 1 hour and 40 minute assumption is limiting since during this event the room was flooded to about half the acceptable water height (2 inches vs a 4.5 inch limit) in about 26 minutes. That would suggest that

Either the calc was in error, water room height assumption was in error or there were other sources of water that were able to communicate with the room, or I suppose maybe the event lasted longer than 26 minutes.

All in all, the risk estimate is uncertain and I hope that we will be able to replace some of the assumptions and uncertainties through the inspection. We can arrange for a further discussion of the topic if desired.

Thanks

Ray

From: Lew, David
Sent: Saturday, May 16, 2015 9:16 AM
To: Trapp, James; Nieh, Ho; Lorson, Raymond
Cc: Scott, Michael; Dorman, Dan
Subject: Re: IP3 Transformer Deluge IMC 0309 Review

It's not clear to me that the operators would not see it coming. In this case, they did. I agree with you that the $10e-4$ is highly uncertain. But I don't see that the initiating frequency is one as assumed here. A transformer fire event did not occur which require the operation of the deluge system for more than 100 minutes. I guess my gut says that this is an overly conservative risk estimate.

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(Mobile)

(610) 337-6928<tel:(610)%20337-6928> (Fax) ho.nieh@nrc.gov

From: Newman, Garrett

Sent: Friday, May 15, 2015 4:08 PM

To: Nieh, Ho

Cc: Scott, Michael; Burritt, Arthur; Dentel, Glenn; Setzer, Thomas; Pinson, Brandon; Schussler, Jason;
Stewart, Scott; Bolger, Allyce; Schmidt, Wayne

Subject: IP3 Transformer Deluge IMC 0309 Review

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Garrett A. Newman

Resident Inspector – Indian Point

914-739-9360<tel:914-739-9360> (o)

(b)(6)

(c)

Trapp, James

From: Nieh, Ho
Sent: Monday, May 18, 2015 5:28 AM
To: Lew, David; Lorson, Raymond; Trapp, James
Cc: Scott, Michael; Dorman, Dan
Subject: RE: IP3 Transformer Deluge IMC 0309 Review

Ray/Jim - it might be helpful to have Wayne can discuss the issues with Dave.

We discussed several of the same issues with Wayne on Friday before sending the draft out for comment.

While there are conservatisms in the assessment, I would not conclude that they are unreasonable. It's also my understanding that our approach to HEP assumption is being applied consistently.

To me, SIT seems to be the right place to be.

Ho Nieh
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From: Lew, David
Sent: Saturday, May 16, 2015 12:34 PM
To: Lorson, Raymond; Trapp, James; Nieh, Ho
Cc: Scott, Michael; Dorman, Dan
Subject: Re: IP3 Transformer Deluge IMC 0309 Review

Understand, it is only a gut feeling. I understand that the success criteria is the operators opening two doors 9999 out of 10000 times. A little of a struggle for me to assume actuation of the deluge as the event vice one that operates for a sufficient time. Also, the initial description early in the week was one inch. The ASS assumption is unclear as I indicated in my previous email and whether the deluge system can deliver that rate of flow without the fire diesel pump without some switchover is also unclear. Recognize that these are only the mitigating aspects and I share just because the 2e-5 seems overly conservative.

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A couple of other thoughts/comments to clear up the questions and reflect some of the uncertainties and questions involved:

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From: Newman, Garrett
Sent: Friday, May 15, 2015 4:08 PM
To: Nieh, Ho
Cc: Scott, Michael; Burritt, Arthur; Dentel, Glenn; Setzer, Thomas; Pinson, Brandon; Schussler, Jason; Stewart, Scott; Bolger, Allyce; Schmidt, Wayne
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Garrett A. Newman
Resident Inspector – Indian Point
914-739-9360<tel:914-739-9360> (o)
(b)(6) (c)

Siwy, Andrew

From: Setzer, Thomas
Sent: Tuesday, June 09, 2015 1:32 PM
To: Schmidt, Wayne; Rich, Sarah; Fuhrmeister, Roy
Cc: Burritt, Arthur
Subject: RE: IP3

Yes, this what I have been thinking – that the actual net flowrate into the room is 25 gpm if we believe the drian capacity and the observation that it all drained in about 20-30 min.

From: Schmidt, Wayne
Sent: Tuesday, June 09, 2015 1:30 PM
To: Setzer, Thomas; Rich, Sarah; Fuhrmeister, Roy
Cc: Burritt, Arthur
Subject: RE: IP3

So if we think that the 25 gpm drain capacity is the most accurate number (based on test) then:

Net flow rate into the room * 30 minutes = flowrate out of the room * 30 minutes

(In-flowrate – out-flowrate) * 30 = out-flowrate * 30

So in-flowrate = 2 * out-flowrate

If out-flowrate = 25; in-flowrate = 50

Net flowrate into room = 25 gpm

So $4.8 * 1920 / 25 = 6$ hours

From: Setzer, Thomas
Sent: Tuesday, June 09, 2015 9:37 AM
To: Rich, Sarah; Schmidt, Wayne; Fuhrmeister, Roy
Subject: RE: IP3

I don't see any inaccuracies. Looks good!

From: Rich, Sarah
Sent: Tuesday, June 09, 2015 8:45 AM
To: Schmidt, Wayne; Setzer, Thomas; Fuhrmeister, Roy
Subject: RE: IP3

Tom or Roy, correct me if I am wrong here....

Switchgear room dimensions = 113'x27'

Switchgear room gallons/inch of depth = $113'x27'x1' / 12" \times (7.48 \text{ gal/ft}^3) = 1902 \text{ gal/inch}$

$75 \text{ gal/min} \times 30 \text{ min} / 1902 \text{ gal/inch} = 1.2 \text{ inches} \rightarrow$ not greater than 1.5 inches



1.5 inches * 1902 gal/inch / 30 min = 95 gpm -> significantly more than was measured for the floor drain flow

4.8 inches * 1902 gal/inch / (75 gpm - 25 gpm) = 183 minutes ~ 3 hours

I feel like I'm back in high school answering word problems for math class...

From: Schmidt, Wayne

Sent: Tuesday, June 09, 2015 8:30 AM

To: Setzer, Thomas; Fuhrmeister, Roy; Rich, Sarah

Subject: IP3

Trying to put some bounds on the information from IP3 SWGR water issue:

1. What was the min time until 4.8 inches could have been reached?
 - a. Given 75 gpm (25 gpm from three deluge valves), assuming no out flow from the floor drains, what is the estimated water level in the SWGR room after 30 minutes - when FP-75 was closed? Is this greater than 1.5 inches?
 - b. Given 1.5 inches of water in the SWGR room what would the estimated average floor drain flow be if the room was drained after 30 minutes after FP-75 was closed?
 - c. Given 75 gpm minus the average estimated floor drain flow how long would it take to reach the critical level of 4.8 inches, assuming no leakage under the EDG room doors?

Wayne Schmidt
Senior Reactor Analyst
Region I

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Lally, Christopher

From: Fuhrmeister, Roy
Sent: Thursday, June 11, 2015 7:39 AM
To: Setzer, Thomas; Rich, Sarah; Schmidt, Wayne
Subject: RE: IP3

Those numbers look similar to the ones I calculated last week at IP3. I don't have my notes available to me, as I am at Nine Mile Point for the Fire Protection triennial.

Roy L. Fuhrmeister

From: Setzer, Thomas
Sent: Tuesday, June 09, 2015 9:37 AM
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Subject: RE: IP3

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$75 \text{ gal/min} \times 30 \text{ min} / 1902 \text{ gal/inch} = 1.2 \text{ inches} \rightarrow$ not greater than 1.5 inches

$1.5 \text{ inches} \times 1902 \text{ gal/inch} / 30 \text{ min} = 95 \text{ gpm} \rightarrow$ significantly more than was measured for the floor drain flow

$4.8 \text{ inches} \times 1902 \text{ gal/inch} / (75 \text{ gpm} - 25 \text{ gpm}) = 183 \text{ minutes} \sim 3 \text{ hours}$

I feel like I'm back in high school answering word problems for math class...

From: Schmidt, Wayne
Sent: Tuesday, June 09, 2015 8:30 AM
To: Setzer, Thomas; Fuhrmeister, Roy; Rich, Sarah
Subject: IP3

Trying to put some bounds on the information from IP3 SWGR water issue:

1. What was the min time until 4.8 inches could have been reached?

a. Given 75 gpm (25 gpm from three deluge valves), assuming no out flow from the floor drains, what is the estimated water level in the SWGR room after 30 minutes – when FP-75 was closed? Is this greater than 1.5 inches?

b. Given 1.5 inches of water in the SWGR room what would the estimated average floor drain flow be if the room was drained after 30 minutes after FP-75 was closed?

c. Given 75 gpm minus the average estimated floor drain flow how long would it take to reach the critical level of 4.8 inches, assuming no leakage under the EDG room doors?

Wayne Schmidt
Senior Reactor Analyst
Region I
610-337-5315 – work

(b)(6)

Lally, Christopher

From: Setzer, Thomas
Sent: Monday, June 22, 2015 7:10 AM
To: Schmidt, Wayne; Fuhrmeister, Roy; Rich, Sarah
Subject: RE: PD Exposure time

On March 24, 2015 (during most recent IP3 refueling outage) , SOV-230-1 was again reported to fail to close after opening. It looks like you would have to use the max 1 year.

From: Schmidt, Wayne
Sent: Monday, June 22, 2015 6:55 AM
To: Setzer, Thomas; Fuhrmeister, Roy; Rich, Sarah
Subject: RE: PD Exposure time

The max time we us is one year. However, depending on how they valve behaved during the outage test in March 2015? It may not be a year, it could just be since the outage, if they worked properly during the outage test.

From: Setzer, Thomas
Sent: Monday, June 22, 2015 6:52 AM
To: Schmidt, Wayne; Fuhrmeister, Roy; Rich, Sarah
Subject: RE: PD Exposure time

We may have to ask the licensee this one if you need specific dates. The earliest CR I have is from 4/7/11, when SOV-230-1 (32 Main Transformer) was reported to have stuck open. Since the test is every 2Y, the last time it may have worked properly would have been in the April 2009 timeframe.

Do you need confirmation of an exact date for SOV-230-1 operating properly?

From: Schmidt, Wayne
Sent: Monday, June 22, 2015 6:46 AM
To: Setzer, Thomas; Fuhrmeister, Roy; Rich, Sarah
Subject: RE: PD Exposure time

Do we know which valves functioned properly in the Testing?

From: Setzer, Thomas
Sent: Monday, June 22, 2015 6:22 AM
To: Schmidt, Wayne; Fuhrmeister, Roy; Rich, Sarah
Subject: RE: PD Exposure time

Im in today and all week. Let me know how I can help.

From: Schmidt, Wayne
Sent: Monday, June 22, 2015 6:11 AM
To: Setzer, Thomas; Fuhrmeister, Roy; Rich, Sarah
Subject: PD Exposure time

Good Morning

I need your help to set the exposure time. I think it will depend on how the deluge valves functioned during the 2015 outage test.

Wayne Schmidt
Senior Reactor Analyst
Region I

610-337-5315 – work

(b)(6) [redacted] cell

Lally, Christopher

From: Stewart, Scott
Sent: Wednesday, July 01, 2015 3:57 PM
To: Burritt, Arthur
Cc: Nieh, Ho; Klukan, Brett; Setzer, Thomas; Rich, Sarah; Newman, Garrett; Scott, Michael
Subject: RE: RE: Re IP3: Status of Root Cause Report and SIT Report

The Entergy root cause of the May 9 transformer failure is not complete. A winding fault to ground has been found, however forensics continue as to the cause of the fault (manufacturing, materials, etc). The cause may end up as indeterminate because of extensive damage in the area of the fault internal to the transformer.

Entergy committed to stakeholders to have a cause identified by June 30. The VP production (Mohl) issued a press release based on the information known at this point to meet this commitment.

I got this update from Larry Coyle.
Scott

From: Burritt, Arthur
Sent: Wednesday, July 01, 2015 3:18 PM
To: Stewart, Scott
Subject: FW: RE: Re IP3: Status of Root Cause Report and SIT Report

Can you find the answer to Ho's question

From: Nieh, Ho
Sent: Wednesday, July 01, 2015 1:55 PM
To: Burritt, Arthur; Setzer, Thomas
Cc: Lew, David; Dorman, Dan; Teator, Jeffrey; Screnci, Diane; Sheehan, Neil; Klukan, Brett; Lorson, Raymond
Subject: RE: RE: Re IP3: Status of Root Cause Report and SIT Report

Art – can you please find out the answer to Brett's question?

Seems like Entergy put out some information to the media However, I'm not sure if it's correct to infer that the root cause eval has been completed.

Thanks,

Ho

Ho Nieh
Director, Division of Reactor Projects
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2100 Renaissance Boulevard, Suite 100
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(610) 337-5229 (Office)
(b)(6) Mobile }
(610) 337-6928 (Fax)
ho.nieh@nrc.gov

Lally, Christopher

From: Setzer, Thomas
Sent: Wednesday, July 15, 2015 3:22 PM
To: Burritt, Arthur; Stewart, Scott; Rich, Sarah; Fuhrmeister, Roy; Newman, Garrett
Subject: FW: Information

Some details on the offsite fire department response.

From: Walpole, Robert W [mailto:rwalpol@entergy.com]
Sent: Wednesday, July 15, 2015 10:11 AM
To: Setzer, Thomas
Subject: [External_Sender] Information

Tom,

Here is some information on the fire response.

We put out a call for off-site assistance, and the village of Verplank responded with two engines. We needed a tower ladder truck. The Verplank tower ladder truck had a flat tire and was unavailable, so Verplank called Montross asking for their tower ladder truck which they agreed to supply. The trucks were originally held at the EOF parking lot (outside protected area). Eventually, all three trucks were brought into the protected area. The Montross tower ladder truck was used to spray foam onto the transformer. The Verplank fire chief (who is also an IP2 reactor operator) was in the bucket of the truck, and Montross personnel were providing support for the ladder truck. The two Verplank engines were not brought into the switchyard area, but were staged out by the condensate polisher building (inside protected area, but not by switchyard).

On a separate subject, could you send me what the problem statement is for the proposed NCV on the MSSV. I can have my guys look at it, and see if they understand. If they have questions, I can then set up a call? Would that work?

Call with questions.

Bob Walpole

Regulatory Assurance Manager

Indian Point Entergy Center
914-254-6710 (Work)

(b)(6)

Lally, Christopher

From: Burritt, Arthur
Sent: Thursday, July 16, 2015 2:33 PM
To: Scott, Michael
Subject: RE: Indian Point SIT report and COMM Plan

Today or tomorrow

From: Scott, Michael
Sent: Thursday, July 16, 2015 2:25 PM
To: Burritt, Arthur
Subject: FW: Indian Point SIT report and COMM Plan

Art:

When do I expect to see this?

Thx

Mike

From: Nieh, Ho
Sent: Thursday, July 16, 2015 10:35 AM
To: Setzer, Thomas; Scott, Michael
Subject: Re: Indian Point SIT report and COMM Plan

Thanks Tom.

Mike - can you pls make sure ORA gets a copy.

Thx.

Sent from my iPhone

Ho Nieh
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(610) 337-5229 office
(610) 337-6928 mobile
(610) 337-6928 fax

On: 15 July 2015 15:58, "Setzer, Thomas" <Thomas.Setzer@nrc.gov> wrote:
Hi Ho-

I added the comments you made. We are fine tuning the COMM plan and will have it ready for you soon.

TOM

From: Nieh, Ho
Sent: Monday, July 06, 2015 11:20 AM
To: Setzer, Thomas; Burritt, Arthur
Cc: Fuhrmeister, Roy; Rich, Sarah; Scott, Michael
Subject: RE: Indian Point SIT report and COMM Plan

Tom – thanks for promptly getting this moving.

Can we please add a few Q&As to address the following:

1. What is the NRC doing about the transformer oil that was released to the Hudson River? [There may already be something written for this already, so we should use that. If not, I'd suggest the key points include that the oil release is not under our regulatory purview and that we've observed that the licensee is coordinating with the appropriate organizations in its cleanup efforts.]
2. Indian Point has had # transformer failures since 200x, what is the NRC doing about this? [Emphasize that we our inspection program has us look at the impact that non-safety related systems have on the plant via PIR, Mrule, and the performance indicator for scrams/downpowers.]

There may be some other Qs you have as well.

Thanks,

Ho Nieh
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(b)(6) (Mobile)]
(610) 337-6928 (Fax)
ho.nieh@nrc.gov

From: Setzer, Thomas
Sent: Thursday, July 02, 2015 11:43 AM
To: Nieh, Ho; Fuhrmeister, Roy; Rich, Sarah
Subject: Indian Point SIT report and COMM Plan

Attached is a draft version of the IP SIT report and COMM Plan. Please feel free to review the attached report and COMM Plan, and make edits using "Track Changes" electronically.

Please complete your initial review by Monday July 13. I plan on issuing this report on Thursday July 23, 2015.
Thank You

Lally, Christopher

From: Setzer, Thomas
Sent: Friday, July 17, 2015 3:37 PM
To: Nieh, Ho; Scott, Michael
Cc: Burritt, Arthur; Fuhrmeister, Roy; Rich, Sarah; Stewart, Scott; Newman, Garrett; Screnci, Diane; Sheehan, Neil; McNamara, Nancy; Tiff, Doug
Subject: IP SIT COMM Plan
Attachments: COMM PLAN IP SIT report 2015010.doc
Importance: High

The updated Comm Plan for the Ip SIT is attached.

VR,
TOM

Handwritten signature or initials in the bottom right corner of the page.

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COMMUNICATIONS PLAN
Indian Point Special Inspection Report 2015010
Water Accumulation in Safety-Related Switchgear Room Following
Deluge of a #31 Main Transformer Fire on May 9, 2015

Introduction

On Thursday, July 23, 2015, the NRC will issue the Indian Point Special Inspection report 2015010, which documents the results of a Special Inspection completed on June 24, 2015. This Special Inspection began on May 19, 2015, and was conducted by a four-person team comprised of regional inspectors, a Resident Inspector, and a regional Senior Reactor Analyst.

This SIT was launched to review of the circumstances surrounding the May 9, 2015, water accumulation in the Unit 3 safety-related switchgear room following the 31 main transformer failure and reactor trip event at Indian Point Nuclear Generating Unit 3. This event satisfied the criteria in NRC Inspection Manual Chapter 0309, "Reactive Inspection Decision Basis for Reactors," for conducting a special inspection due to estimated CCDP values in the 4 E-6 to 2 E-5 range per the SPAR models.

Background and Summary of Event

On May 9, 2015, at 5:50 p.m., Indian Point Unit 3 experienced a main turbine-generator lockout, main turbine trip, and automatic reactor trip as a result of an explosion and fire on the 31MT. The reactor trip was uncomplicated. All control rods inserted into the reactor core and all safety systems responded as designed.

At 5:52 p.m., the heat from the transformer fire caused activation of the 31MT, 32 main transformer (32MT), unit auxiliary transformer (UAT), and curtain wall fire protection water deluge systems. The site fire brigade responded to the fire after receiving reports and alarms on the Fire Display Control Panel that a fire was present on the 31MT. At 6:01 p.m., Entergy declared a Notification of Unusual Event for an explosion within the station's Protected Area.

At 6:12 p.m., the fire brigade leader ordered securing the deluge system in order to apply foam to the transformer in accordance with station pre-fire plans and oil fire-fighting strategies. Also at this time, water had been reported on the floor in the Unit 3 480V switchgear room. The Unit 3 480V switchgear room houses breakers that power safety-related equipment. Operators attempted to isolate the deluge system; however, the yoke on an isolation valve was broken during operation, which caused the system to leak-by. An alternate valve was used to isolate deluge water to all four deluge systems.

The fire was initially extinguished at 6:15 p.m.; however, it reflashd at 6:37 p.m., at which time Entergy made calls for offsite fire support from Verplanck and Montrose fire departments. Fire and ladder trucks from Verplanck and Montrose fire departments arrived at the site at 6:49 p.m. and 7:15 p.m., respectively, and were later brought into the Protected Area to assist in spraying foam. The fire was extinguished at 8:05 p.m.

The water that accumulated on the floor of the Unit 3 480V switchgear room was initially reported to

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be approximately 1 to 2 inches in depth. The source of this water was determined to be deluge system water that had come from a deluge valve room, which is adjacent to the 480V switchgear room. The deluge valve room houses four deluge system valves; specifically, 31MT, 32MT, UAT, and station auxiliary transformer deluge valves. The deluge valve associated with the curtain wall system is located in the turbine building. In order for a deluge valve to open, a solenoid valve (SOV) associated with each deluge valve opens and bleeds water pressure off a diaphragm assembly. This water is bled to the floor towards a drain. Entergy determined that the water bled from the 31MT, 32MT, and UAT SOVs was unable to completely drain through a floor drain due its limited capacity, and consequently made its way into the 480V switchgear room where it pooled to approximately 1-inch in depth. Operators reported that all the water drained completely within 30 minutes after the deluge system had been isolated.

Key Messages

- Our inspection determined there was no adverse impact to public health or safety as a result of the event.
- We found that the 31 main transformer failure and water that accumulated in the switchgear room did not adversely affect the safe shutdown of the plant. Specifically, the actual water level (0.4 inch) was below the height of safety-related equipment (4.875 inches).
- The focus of the SIT was to investigate the water found in the Unit 3 safety-related switchgear room. This water was determined to come from three deluge system solenoid valves located in a room adjacent to the switchgear room that had remained open during the event. The three solenoid valves ported water to the floor, which flowed into the switchgear room. Clogged drains caused the water to accumulate and produce minor flooding (0.4 inch) in the switchgear room.
- Entergy has taken appropriate interim and longer term corrective actions, which has included repairing the solenoid valves and pressure switches, and inspecting/cleaning the floor drains.
- Three full-time NRC resident inspectors continue to closely monitor the licensee's actions at Indian Point.
- This inspection did not review the causes of the failure of the 31 main transformer, nor did it investigate the transformer oil spill into the Hudson River. (This message should be communicated, if needed, in order to correct any false media reports that the SIT was sent to investigate the transformer failure).

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Questions and Answers

1. Were there any violations of NRC requirements as a result of the event?

The report documents one NRC-identified, Green, NCV of Condition 2.H of the Indian Point Unit 3 Facility Operating License DPR-64, "Fire Protection Program," for failure to promptly identify, report, and correct a condition adverse to fire protection. Specifically, solenoid valve (SOV)-230-1, associated with the deluge valve for the 32 main transformer (32MT), was documented to have opened during its 2-year deluge activation tests on April 7, 2011, April 2, 2013, and March 24, 2015, but did not close as designed after the deluge system actuated. This condition was not corrected, and recurred on May 9, 2015, when the deluge system actuated in response to a fire on the 31 main transformer (31MT). Water from the stuck open SOV flowed to the floor and made its way into the switchgear room. After completion of troubleshooting activities, Entergy determined a clogged orifice in the SOV pressure switch prevented the SOV from going closed.

2. How did the NRC determine that a Special Inspection Team was warranted?

The NRC reviewed this event in accordance with Inspection Manual Chapter (IMC) 0309 and concluded that one of the deterministic criteria in Enclosure 1 of IMC 0309 was met. The criterion met was for the significant, unexpected system interaction between the fire protection deluge system and the safety-related switchgear room. The preliminary risk analysis estimated a conditional core damage probability (CCDP) in the 4 E-6 to 2 E-5 range. Based upon the risk analysis and satisfying the deterministic, a Special Inspection Team was launched. The NRC's program for Special Inspections is described in Management Directive 8.3, "Incident Investigation Program."

3. What is the NRC doing about the transformer oil that spilled into the Hudson River?

The failure of the 31MT resulted in transformer oil being released to the Hudson River. The NRC does not regulate oil releases; therefore, the amount of oil or its clean-up is not under our regulatory purview. Entergy notified the National Response Center for the oil spill and is working with the appropriate government agencies.

4. There is an adverse trend of transformer issues at Indian Point. What is the NRC doing to investigate this trend?

Since 2007, Indian Point has had the following transformer issues:

- Indian Point Unit 3 - #31 Main Transformer explosion on April 6, 2007, due to an electrical fault in the 'B' phase high voltage bushing
- Indian Point Unit 2 - #21 Main Transformer explosion on November 7, 2010
- Indian Point Unit 3 – Unit Auxiliary Transformer, removed from service on February 29, 2012, due to high gassing
- Indian Point Unit 3 - #31 Main transformer failure on May 9, 2015

The NRC's ROP inspection program includes inspections that review the impact that non-safety related systems, such as main transformers, have on the plant. This includes inspections of Problem Identification and Resolution (PI&R), Maintenance Rule, and Performance Indicators. The Resident Inspectors have completed an Event-Follow-up inspection of the 31 main transformer

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failure and will document the results in a publically available quarterly report (2015002) due to be available by mid-August 2015. Additionally, the NRC is planning a Maintenance Rule inspection of the 31 main transformer, and a PI&R inspection sample of the transformer issues since 2007. These are planned to be complete by the end of this year, and their results will be published in publically available inspection report.

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Timeline – Thursday, July 23, 2015

Time Sequence	Action	Responsible Organization/Individual
By early morning ~ 10am	SIT report 2015010 is signed Report is scanned into .pdf format and emailed to: Kim Morgan-Butler, EDO Office Use NRC email in Outlook Larry Coyle, Indian Point Site Vice President: <u>LCoyle@entergy.com</u> Bob Walpole, Licensing Manager <u>rwalpol@entergy.com</u>	Art Burritt - DRP DRP Admin staff
2:00 pm	Call Larry Coyle, Indian Point Site Vice President, to discuss report details and answer questions: Cell phone number: (b)(6)	Art Burritt – DRP Tom Setzer - DRP
2:30 pm	SLOs email copies of report to State stakeholders and make appropriate notifications and calls	Doug Tiff/Nancy McNamara – SLO
2:30 pm	OCA emails copies of report to Congressional stakeholders and makes calls.	Jenny Weil – OCA
~4pm	Report is released as publically available on ListServ	DRP Admin staff
After 4pm	Answer to stakeholder calls/print media inquiries	Diane Screnci/Neil Sheehan - PAO

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Lally, Christopher

From: Setzer, Thomas
Sent: Thursday, August 06, 2015 7:35 AM
To: Burritt, Arthur
Subject: RE: Indian Point SIT report

It should be a call back to Dave.

#1 and #3 should be shared with Mel's group since he is asking about license renewal commitments and there is evidence the door may not be waterproof and that drains aren't being flushed every outage. #2 is impossible because the room is too small to hold a 7500 gpm deluge leak.

From: Burritt, Arthur
Sent: Wednesday, August 05, 2015 10:37 PM
To: Setzer, Thomas
Subject: FW: Indian Point SIT report

How should we handle the questions below?

From: Nieh, Ho
Sent: Tuesday, August 04, 2015 12:32 PM
To: Screnci, Diane; Scott, Michael
Cc: Burritt, Arthur; Setzer, Thomas
Subject: RE: Indian Point SIT report

There's a lot here might be better to handle it like we did with the Piigrim Juno SIT report i.e., set up a call with Dave to discuss.

Ho Nieh
Director, Division of Reactor Projects
U.S. Nuclear Regulatory Commission Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406
(610) 337-5229 (Office)
(b)(6) Mobile)
(610) 337-6928 (Fax)
ho.nieh@nrc.gov

From: Screnci, Diane
Sent: Tuesday, August 04, 2015 11:36 AM
To: Nieh, Ho; Scott, Michael
Subject: FW: Indian Point SIT report

How do you guys want to handle this? I told Dave we'd get back to him.

Diane Screnci
Sr. Public Affairs Officer
USNRC, RI
610-337-5330

From: Dave Lochbaum [mailto:DLochbaum@ucsusa.org]
Sent: Tuesday, August 04, 2015 11:34 AM
To: Screnci, Diane
Subject: [External_Sender] Indian Point SIT report

Hello Diane:

After reading the NRC SIT report (ML15204A499) on the transformer event at Indian Point, I had some questions:

1) The first full paragraph on page 7 of the report states that "...water began to flood the deluge valve room to a height of 4 to 6 inches, and flowed underneath the door to the switchgear room...". But Table E.4-1 in the 2007 license renewal application submitted to the NRC by Entergy stated for SAMA 219 that "In addition, a water proof door to the deluge valve station room has also been installed ... at IP3." Has a water proof door been installed at IP3? If so, was it's design intended to prevent or limit the flow of water underneath it?

2) Table 4.3.1.2 from the June 1994 Individual Plant Examination submitted by NYPA to NRC reported that the rupture of the 10-inch diameter fire protection line to the deluge valves inside the switchgear room could release up to 7,500 gallons per minute into the room. As mentioned above, there's a door between this area and the rest of the switchgear room. There's no water depth monitor or alarm inside the deluge station area. I've not found info on whether the door opens inward from the switchgear room or outward from the deluge station area into the switchgear room. A worker opening the door - unaware of the depth of water on its other side - from the switchgear room or water pressure causing the door to give way could unleash a torrent of water into the switchgear room, producing even a mini-tsunami wave at the leading edge. Did the NRC consider such a rapid flooding scenario in determining its 1 in 10 million year estimate on page 12?

3) The second full paragraph on page 8 states that the "inspectors reviewed the preventative maintenance program for the floor drains" in the 480 volt switchgear room. The paragraph goes on to describe a test (using the term very loosely) where workers every two years dumped 10 gallons of water into a floor drain and checked whether it went away within one minute. But Table E.4-1 in the 2007 license renewal application stated for SAMA 215 that "IP3 preventative maintenance program has been revised to have the control building 15 ft elevation flood drains flushed during each outage. This procedural change greatly increases the likelihood that the drains at this elevation will be available to mitigate flooding in the control building and switchgear room. Therefore, this SAMA has already been implemented at IP3." Are the floor drains in the 480 volt switchgear room at IP3 flushed during each outage? Or does Entergy merely have a procedure for doing so? If the former, why didn't the flushing prevent the drains from becoming 75% clogged? If the latter, hasn't Entergy misled the NRC with its apparent assurance in Table E.4-1?

Thanks,
Dave Lochbaum
UCS

Lally, Christopher

From: Scott, Michael
Sent: Sunday, August 09, 2015 3:37 PM
To: Setzer, Thomas
Cc: Burritt, Arthur; Gray, Mel
Subject: RE: Indian Point SIT report

Well done Tom!

Art – Please determine how/who to address the remaining item. And how do we document resolution of all of it? Please circle back with me on the plan.

Thanks!

Mike

From: Setzer, Thomas
Sent: Sunday, August 09, 2015 11:25 AM
To: Nieh, Ho; Scott, Michael
Cc: Burritt, Arthur; Gray, Mel
Subject: RE: Indian Point SIT report

Hi Ho and Mike –

I called Dave Lochbaum from the TTC and was able to satisfy all of his concerns but one. He questioned both a waterproof door and floor drain flush commitment (see his email below) in the IP3 License Renewal application, and whether or not the commitments were still met given the flooding seen during the May 9 transformer event. I told him I would share his concern with our License Renewal staff and get back to him.

Since I am in TTC for the series, its difficult to follow this closely day-to-day. I will need some Regional or HQs support for the License Renewal commitment piece. Ive already been in touch with Art and Mel Gray via email to determine what, if any, License Renewal commitments are affected.

VR,
TOM

From: Nieh, Ho
Sent: Tuesday, August 04, 2015 12:32 PM
To: Screnci, Diane; Scott, Michael
Cc: Burritt, Arthur; Setzer, Thomas
Subject: RE: Indian Point SIT report

There's a lot here might be better to handle it like we did with the Pilgrim Juno SIT report i.e., set up a call with Dave to discuss.

Ho Nieh
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ho.nieh@nrc.gov

From: Screnci, Diane
Sent: Tuesday, August 04, 2015 11:36 AM
To: Nieh, Ho; Scott, Michael
Subject: FW: Indian Point SIT report

How do you guys want to handle this? I told Dave we'd get back to him.

Diane Screnci
Sr. Public Affairs Officer
USNRC, RI
610-337-5330

From: Dave Lochbaum [<mailto:DLochbaum@ucsusa.org>]
Sent: Tuesday, August 04, 2015 11:34 AM
To: Screnci, Diane
Subject: [External_Sender] Indian Point SIT report

Hello Diane:

After reading the NRC SIT report (ML15204A499) on the transformer event at Indian Point, I had some questions:

- 1) The first full paragraph on page 7 of the report states that "...water began to flood the deluge valve room to a height of 4 to 6 inches, and flowed underneath the door to the switchgear room...". But Table E.4-1 in the 2007 license renewal application submitted to the NRC by Entergy stated for SAMA 219 that "In addition, a water proof door to the deluge valve station room has also been installed ... at IP3." Has a water proof door been installed at IP3? If so, was it's design intended to prevent or limit the flow of water underneath it?
- 2) Table 4.3.1.2 from the June 1994 Individual Plant Examination submitted by NYPA to NRC reported that the rupture of the 10-inch diameter fire protection line to the deluge valves inside the switchgear room could release up to 7,500 gallons per minute into the room. As mentioned above, there's a door between this area and the rest of the switchgear room. There's no water depth monitor or alarm inside the deluge station area. I've not found info on whether the door opens inward from the switchgear room or outward from the deluge station area into the switchgear room. A worker opening the door - unaware of the depth of water on its other side - from the switchgear room or water pressure causing the door to give way could unleash a torrent of water into the switchgear room, producing even a mini-tsunami wave at the leading edge. Did the NRC consider such a rapid flooding scenario in determining its 1 in 10 million year estimate on page 12?
- 3) The second full paragraph on page 8 states that the "inspectors reviewed the preventative maintenance program for the floor drains" in the 480 volt switchgear room. The paragraph goes on to describe a test (using the term very loosely) where workers every two years dumped 10 gallons of water into a floor drain and checked whether it went away within one minute. But Table E.4-1 in the 2007 license renewal application stated for SAMA 215 that "IP3 preventative maintenance program has been revised to have the control building 15 ft elevation flood drains flushed during each outage. This procedural change greatly increases the likelihood that the drains at this elevation will be available to mitigate flooding in the control building and switchgear room. Therefore, this SAMA has already been implemented at IP3." Are the floor drains in the 480 volt switchgear room at IP3 flushed during each outage? Or does Entergy merely have a procedure for doing so? If

the former, why didn't the flushing prevent the drains from becoming 75% clogged? If the latter, hasn't Entergy misled the NRC with its apparent assurance in Table E.4-1?

Thanks,
Dave Lochbaum
UCS

Lally, Christopher

From: Stewart, Scott
Sent: Wednesday, August 12, 2015 12:48 PM
To: Rich, Sarah
Cc: Haagensen, Brian
Subject: FW: RE: Indian Point SIT concerns

Lochbaum issues below

From: Setzer, Thomas
Sent: Friday, August 07, 2015 2:16 PM
To: Stewart, Scott <Scott.Stewart@nrc.gov>; Newman, Garrett <Garrett.Newman@nrc.gov>
Cc: Burritt, Arthur <Arthur.Burritt@nrc.gov>
Subject: FW: RE: Indian Point SIT

Hi Scott and Garrett - Here are Dave's concerns. I spoke to him on the phone Friday and shared his concerns with Mel Gray for the License Renewal commitments aspect.

From: Dave Lochbaum [<mailto:DLochbaum@ucsusa.org>]
Sent: Friday, August 07, 2015 9:50 AM
To: Setzer, Thomas
Subject: [External_Sender] RE: Indian Point SIT

Hello Tom:

Thanks for following up.

423-468-9272 is my office number. But my cell (b)(6) more reliable and usually provides a clearer signal.

The questions I emailed Diane are:

1) The first full paragraph on page 7 of the report states that "...water began to flood the deluge valve room to a height of 4 to 6 inches, and flowed underneath the door to the switchgear room...". But Table E.4-1 in the 2007 license renewal application submitted to the NRC by Entergy stated for SAMA 219 that "In addition, a water proof door to the deluge valve station room has also been installed ... at IP3." Has a water proof door been installed at IP3? If so, was it's design intended to prevent or limit the flow of water underneath it?

2) Table 4.3.1.2 from the June 1994 Individual Plant Examination submitted by NYPA to NRC reported that the rupture of the 10-inch diameter fire protection line to the deluge valves inside the switchgear room could release up to 7,500 gallons per minute into the room. As mentioned above, there's a door between this area and the rest of the switchgear room. There's no water depth monitor or alarm inside the deluge station area. I've not found info on whether the door opens inward from the switchgear room or outward from the deluge station area into the switchgear room. A worker opening the door - unaware of the depth of water on its other side - from the switchgear room or water pressure causing the door to give way could unleash a torrent of water into the switchgear room, producing even a mini-tsunami wave at the leading edge. Did the NRC consider such a rapid flooding scenario in determining its 1 in 10 million year estimate on page 12?

3) The second full paragraph on page 8 states that the "inspectors reviewed the preventative maintenance program for the floor drains" in the 480 volt switchgear room. The paragraph goes on to describe a test (using the term very loosely) where workers every two years dumped 10 gallons of water into a floor drain and checked whether it went away within one minute. But Table E.4-1 in the 2007 license renewal application stated for SAMA 215 that "IP3 preventative maintenance program has been revised to have the control building 15 ft elevation flood drains flushed during each outage. This procedural change greatly increases the likelihood that the drains at this elevation will be available to mitigate flooding in the control building and switchgear room. Therefore, this SAMA has already been implemented at IP3." Are the floor drains in the 480 volt switchgear room at IP3 flushed during each outage? Or does Entergy merely have a procedure for doing so? If the former, why didn't the flushing prevent the drains from becoming 75% clogged? If the latter, hasn't Entergy misled the NRC with its apparent assurance in Table E.4-1?

My schedule today and next week is open from 9am to 5pm.

Thanks again,
Dave Lochbaum
UCS

From: Setzer, Thomas [Thomas.Setzer@nrc.gov]
Sent: Thursday, August 06, 2015 4:31 PM
To: Dave Lochbaum
Subject: Indian Point SIT

Hello Dave --

I was the Team Leader for the Indian Point Special Inspection which investigated water intrusion into the switchgear room at Unit 3. Diane Screnci contacted me and told me you had questions about the report. Is there a number I can call you at? I was given (423)468-9272 but I'm not sure if that is a good number for you.

I am in Chattanooga at our training facility for the next couple weeks and could call you after class. Please email me a phone number that is best to reach you at.

Thanks,
Tom Setzer

Lally, Christopher

From: Sheehan, Neil
Sent: Friday, August 07, 2015 11:48 AM
To: Burritt, Arthur; Tifft, Doug; McNamara, Nancy; Screnci, Diane
Cc: Scott, Michael; Nieh, Ho; Pinson, Brandon; Setzer, Thomas; McKenzie, Kieta
Subject: Re: IP Report

Thanks, Art

This will come in handy next week.

Neil Sheehan
NRC Public Affairs Officer
Sent from NRC Blackberry

From: Burritt, Arthur
Sent: Thursday, August 06, 2015 03:46 PM
To: Tifft, Doug; McNamara, Nancy; Sheehan, Neil; Screnci, Diane
Cc: Scott, Michael; Nieh, Ho; Pinson, Brandon; Setzer, Thomas; McKenzie, Kieta
Subject: RE: IP Report

I will provide a copy of the report when it is issued, I do not expect any changes, from the draft I provided, in the areas related to the transformer failure.

Talking Points

The second quarter resident report which will be issued on 8/7 or 8/10. It documents the following:

- Resident's at Indian Point observed and verified the adequacy of the fire brigade's response to the 31 Main Transformer fire. With the assistance of offsite resources, the fire brigade responded appropriately and effectively managed the initial fire as well as the subsequent re-flashes on the transformer.
- Following the Main Transformer fire, the NRC Resident Inspectors responded to the site and independently confirmed that the reactor was in a stable, safe condition. The residents verified the adequacy and appropriateness of operator and plant response associated with the transformer fire and water intrusion into the switchgear room.

Additional inspections relating to the main transformer fire at Indian Point 3 will be accomplished by the end of 2015 through a Maintenance Rule sample performed by the residents, as well as a PI&R sample performed by our electrical specialist inspectors. The PI&R annual sample inspection will evaluate the cause of the recent transformer fire. The inspection will focus on commonality with previous main transformer events and the corrective actions as a result of those events along with the transformer maintenance and monitoring programs.

From: Tifft, Doug
Sent: Thursday, August 06, 2015 3:22 PM
To: Burritt, Arthur
Subject: IP Report

Art,

Are you still planning on providing some key messages for the IP quarterly report? I haven't seen anything yet and I know that you are planning on issuing it tomorrow.

Thanks,
-Doug

Doug Tiff

Regional State Liaison Officer

Office: 610-337-6918

Cell: (b)(6)

Setzer, Thomas

From: Stewart, Scott
Sent: Monday, May 11, 2015 1:40 PM
To: Setzer, Thomas; Newman, Garrett
Cc: Sheehan, Neil
Subject: RE: Indian Point 3

There is a large rock filled moat around the transformers in the transformer yard. The moat is supposed to capture oil from the transformers if there is a leak. The moat did this. However some oil was ejected beyond the moat or may have been carried out by the deluge system water sprays or fire hose spray. The operators and fire brigade had reported oil outside of the moat, near the storm drains. The transformer split and pressure from the fire sprayed oil and the transformer is not void of oil. There may have been some moat overflow, the rocks are clearly covered with oil, but we cannot tell exactly. The licensee has pumped the moat and is doing an oil inventory to try to determine a maximum that could have been released. Oil burned up also. The licensee had designated Don Meyer as the official oil inventory spokesman, if we have questions. Scott

-----Original Message-----

From: Setzer, Thomas
Sent: Monday, May 11, 2015 12:46 PM
To: Stewart, Scott; Newman, Garrett
Cc: Sheehan, Neil
Subject: FW: Indian Point 3

Can you guys answer this for Neil?

-----Original Message-----

From: Sheehan, Neil
Sent: Monday, May 11, 2015 12:23 PM
To: Setzer, Thomas
Subject: RE: Indian Point 3

Another question: I thought the issue was the water/oil mix overflowed a moat around the transformer. But the news coverage keeps referring to the water/oil mix flowing into a holding tank that then overflowed. Which was it? Or was it a combination?

-----Original Message-----

From: Setzer, Thomas
Sent: Monday, May 11, 2015 11:29 AM
To: Sheehan, Neil
Subject: RE: Indian Point 3

It is a lightweight oil. Different properties than a fuel oil which is used for combustion. The oil in a transformer cools it.

-----Original Message-----

From: Sheehan, Neil
Sent: Monday, May 11, 2015 11:22 AM
To: Setzer, Thomas
Subject: FW: Indian Point 3



Tom,

Do you know what kind of oil is used in these transformers?

Neil

-----Original Message-----

From: Naureen Malik (BLOOMBERG/ NEWSROOM:)

Sent: Monday, May 11, 2015 11:05 AM

To: Scenci, Diane; Sheehan, Neil

Subject: Indian Point 3

Hi Diane and Neil, I just wanted to see if you had any details about the situation at Indian Point 3 after the transformer fire/explosion. What was the extent of the damage, what kind of repairs are needed and how long do those typically take? Also, do you know what type of oil was released into the Hudson -- fuel oil or more like mineral oil?

Thank you,
Naureen

Naureen S. Malik
Energy Markets Reporter
Bloomberg News
731 Lexington Avenue
New York, NY 10022
W: (212) 617-7784
M (b)(6)
F: (917) 369-4598

Schmidt, Wayne

From: Schmidt, Wayne
Sent: Tuesday, May 12, 2015 10:52 AM
To: Stewart, Scott
Subject: pictures

If possible – could you take a quick couple of pictures (they will help you in the long run) of: Transformer yard looking to Control Building, damaged trans, moat area and general switchgear room looking between 480V panels, floor drains, deluge valve room location, inside the deluge valve room – showing drain dampers and where they drain to, door to EDG room.

Wayne Schmidt
Senior Reactor Analyst
Region I
610-337-5315 – work

(b)(6) cell



Siwy, Andrew

From: Nieh, Ho
Sent: Tuesday, May 12, 2015 6:57 AM
To: Trapp, James; Scott, Michael; Lorson, Raymond
Subject: RE: IP Exam

Still looking into it.

Licensee expects to get us some more info today will factor into mc0309 eval

Ho Nieh
Director, Division of Reactor Projects
U.S. Nuclear Regulatory Commission Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406
(610) 337-5229 (Office)
(b)(6) Mobile
(610) 337-6928 (Fax)
ho.nieh@nrc.gov

-----Original Message-----

From: Trapp, James
Sent: Tuesday, May 12, 2015 6:54 AM
To: Scott, Michael; Lorson, Raymond; Nieh, Ho
Subject: FW: IP Exam

Have we inspected the water intrusion into the 480 S/G room? This should not have occurred.

-----Original Message-----

From: Jackson, Donald
Sent: Monday, May 11, 2015 4:02 PM
To: Trapp, James
Subject: RE: IP Exam

What a mess....I walked it down with the residents this afternoon. The transformer is peeled open at the top of the tank, and they believe the bottom is breached also. The bladder tank at the top is throw off and on top if the isophase. Burning oil went over the concrete barrier and impacted the other main transformer. The isophase will have to be opened up and cleaned. Another aux transformer next to the main also appears charred. Water backed up into the 480 vital switchgear room....a couple inches worth...this was unexpected and is a safety issue. The bottom of my rockports are saturated with oil and AFFF....wonderful. Exam started off well...Pete Ott looks like one of the team...great evaluator. VR. DON J

-----Original Message-----

From: Trapp, James
Sent: Monday, May 11, 2015 2:21 PM
To: Jackson, Donald
Subject: RE: IP Exam

Great - thanks. do they have a spare transformer?

From: Jackson, Donald
Sent: Monday, May 11, 2015 9:58 AM

C-135

To: Trapp, James
Subject: IP Exam

Exam is underway and the Spanish regulators are in the Sim, with HQ support by Tim Kolb.
Don Jackson Sent Via Blackberry

Trapp, James

From: Barr, Steve
Sent: Tuesday, May 12, 2015 9:46 PM
To: Trapp, James
Subject: FW: IPEC Event Summary May 9, 2015
Attachments: IPEC Event Summary Report NUE 5-9-15.pdf

Jim, in case you still wanted it, here's the IPEC event summary that Brian Sullivan wrote. Please let me know if you need anything else, Steve _____

From: Glander, Lori [lglande@entergy.com]

Sent: Sunday, May 10, 2015 3:12 PM

To: OHara, Dan (DHSES); Cullen, John (JCullen@westchestergov.com); Greeley, Dan; Stewart, Scott;

Newman, Garrett; robert.lipton@putnamcountyny.gov; Barr, Steve; ccherry@orangecountygov.com

Cc: Wacha, Jenifer; Delborgo, Dennis; sfisher@co.orange.ny.us; Lannon, Tom; Longo, Nick; Dinelli, John; Fisch, Theodore (DHSES); Kirkpatrick, John; Coyle, Lawrence; dl - IPEC - Emergency Planning; Walpole, Robert W; Sullivan, Brian A - IPEC

Subject: IPEC Event Summary May 9, 2015

All,

Attached please find an event summary for the May 9th, 2015 NUE. Thanks to each of you for your support and assistance.

Regards,

Lori Glander
EP Manager – Entergy Indian Point
914-254-8410 w

(b)(6) c]



Entergy Nuclear Northeast
Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

May 10, 2015

To: Distribution List

From: Brian Sullivan, IPEC Site Recovery Director *John Glendon for Brian Sullivan*

Subject: Event Summary Report of Notification of Unusual Event Emergency declared at the Indian Point Energy Center

The Indian Point Energy Center terminated from the Notification of Unusual Event (NUE) emergency status at 2102 hrs on May 9, 2015 and entered Recovery.

The following is a review of events and items pertaining to the NUE Emergency declared on May 9, 2015 at 1801 hrs.

At 1750 hours on May 9, 2015, Indian Point Energy Center (IPEC) Unit #3 received a Turbine trip as a result of a fault on the Main Electrical Generator. This turbine trip resulted in a reactor trip. There were no abnormalities associated with the reactor/turbine trip, other than the Main Transformer Failure.

At 1752, the Unit 3 Control Room (CR) received alarms on the Fire Display Control Panel alerting the operator that the transformer deluge and wall curtain fire suppression systems had activated. Control Room Personnel entered the appropriate Abnormal Operating Procedure.

At 1753, the Unit 3 CR received a report that there was a fire on 31 Main Transformer.

At 1801, the Unit 3 Shift Manager (SM) declared a Notification of Unusual Event (NUE) per Emergency Action Level – EAL HU2.2, Report of Explosion in Protected Area Resulting in Damage to Plant Equipment. He assumed Emergency Director duties. The Operations Support Center & Technical Support Center personnel were notified to respond.

The offsite agencies were notified via the NYS Radiological Emergency Communications System (RECS) at 1808 hrs.

At 1837, offsite fire assistance was requested. Verplanck Fire Company responded at 1849 hrs and Montrose Fire Company responded at 1915 hrs. Both companies left site at 2135 hrs.

There was no release of radiation associated with this event and there were no injuries as a result of this event. The plant remains shut down and will initiate repairs to the failed transformer.

Please contact Lori Glander, Manager, Emergency Preparedness at 914-254-8410 with any questions that you may have.

Distribution: Dan O'Hara
Ted Fisch
John Cullen
Dan Greeley
Robert Lipton
Craig Cherry
Steve Barr
Scott Stewart
Garrett Newman

McKenzie, Kieta

From: Schmidt, Wayne
Sent: Tuesday, May 12, 2015 10:02 AM
To: Stewart, Scott; Setzer, Thomas
Cc: Schoppy, Joseph; Trapp, James; Rogge, John; Krohn, Paul; Gray, Mel; Nieh, Ho; Scott, Michael; Lorson, Raymond
Subject: IP3 Switchgear room water

A couple of questions that, if we can get independent answers to, would help in our discussion with the licensee:

- What was the estimated height of water in the switchgear room near the 480V switchgear?
- Was there water running into the EDG room under the connecting door? I think the EDG room has a high capacity sump pump system to deal with a SW pipe break in EDG area.
- Any more firm idea where the water was coming from? I see three possibilities all directly related to the deluge system actuation; a) from the deluge system piping (open header drain valve) in the deluge room, an additional related question is where does the header drain go to – does it go to the room floor drain; b) from the room floor drains, with flow coming either from backflow from the yard drain system or backup from the deluge header open drain valve; or c) water from the deluge passing through the wall adjoining the transformer yard (cracks, open conduct, unsealed conduit)?
- What would their flood control procedures have told them to do, obviously stop the in-leakage – if it could not be stopped open door to EDG room and let the EDG room sump handle it? Did they stop the deluge because of the switchgear room water?

Wayne Schmidt
Senior Reactor Analyst
Region I
610-337-5315 – work
(b)(6) cell]

McKenzie, Kieta

From: Stapleton, Bernard
Sent: Tuesday, May 12, 2015 1:40 PM
To: MorganButler, Kimyata; Lew, David; Nieh, Ho; Lorson, Raymond; Trapp, James; Scott, Michael; Setzer, Thomas; Lewis, Robert; Langan, Scott; Chen, Yen-Ju
Cc: Pickett, Douglas; Zimmerman, Jacob; Ash, Darren
Subject: RE: Chairman's briefing on IP3 transformer event

Regarding the 3pm Chairman's brief, I will be the NSIR representative and wanted you to know that I have the timeline for who called into the Operations Center, when the event was declared, decision maker calls, and other contacts made by the Headquarters Operations Officers. I do not intend to speak or present but will have that information with me, if needed.

Bernard (Bern) Stapleton
Chief, HQ Operations Branch
U.S. Nuclear Regulatory Commission
(301) 287-3532 O
(301) 287-9351 F

-----Original Appointment-----

From: MorganButler, Kimyata
Sent: Tuesday, May 12, 2015 10:53 AM
To: Lew, David; Nieh, Ho; Lorson, Raymond; Trapp, James; Scott, Michael; Setzer, Thomas; Lewis, Robert; Stapleton, Bernard; Langan, Scott; Chen, Yen-Ju
Cc: Pickett, Douglas; Zimmerman, Jacob; Ash, Darren
Subject: Chairman's briefing on IP3 transformer event
When: Tuesday, May 12, 2015 3:00 PM-3:30 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Chairman's Conference Room 017F22; Bridgeline Informaiton: 1-866-506-8958 Passcode: (b)(6)

To recap, the Chairman is requesting a full timeline of the event, including pictures and diagrams (if available). He also would like to address these specific questions

- What caused the failure of the transformer?
- Do we know how much oil was spilled into the environment?
- Was the firefighting foam used biodegradable? How so?
- Do we have any more details wrt the governor's access to the site? Did the governor call ahead of time?
- Has there being any contact with the state liaison?
- Re US attorney, has anyone asked why they are interested in this information?
- What other contacts are we having, and what are we releasing?
- Re oil release, is it our compliance issue? Or is it the state or EPA (OGC also would like to know)

The Chairman would also like a debrief on the 11:30am briefing that's planned for today.

Bridgeline Information: 1-866-506-8958 Passcode: (b)(6)

Siwy, Andrew

From: MorganButler, Kimyata
Sent: Tuesday, May 12, 2015 11:04 AM
To: Lew, David; Nieh, Ho; Lorson, Raymond; Trapp, James; Scott, Michael; Dorman, Dan; Dean, Bill; Evans, Michele; Holian, Brian; McDermott, Brian; Langan, Scott; McCrary, Cheryl; Tracy, Glenn; Weber, Michael; Ash, Darren
Cc: Setzer, Thomas; Pickett, Douglas; Dudek, Michael; Lewis, Robert; Stapleton, Bernard; Zimmerman, Jacob; Lubinski, John; Wilson, George; Lund, Louise; Galloway, Melanie; Chen, Yen-Ju; Waters, Michael; Santos, Cayetano; Pham, Bo; Johnson, Michael
Subject: Update: RE: Briefing of Chariman Burns

Hello all,

Schedulers with the meeting location and bridgeline information for the 3pm briefing has been sent to identified participants in RI, NRR, NSIR, and OI. I have also included the bridgeline information below. In addition, OEDO received the following additional questions from the Chairman's office related to IP3 that should also be included in the briefing:

- Has there being any contact with the state liaison?
- Re US attorney, has anyone asked why they are interested in this information?
- What other contacts are we having, and what are we releasing?
- Re oil release, is it our compliance issue? Or is it the state or EPA (OGC also would like to know)

The bridgeline # for the briefing is 1-866-506-8958 Passcode: (b)(6)

Please let me know if you have any questions.

Regards,

Kim

From: MorganButler, Kimyata
Sent: Tuesday, May 12, 2015 9:26 AM
To: Lew, David; Nieh, Ho; Lorson, Raymond; Trapp, James; Scott, Michael; Dorman, Dan; Dean, Bill; Evans, Michele; Holian, Brian; McDermott, Brian
Cc: Tracy, Glenn; Weber, Michael; Ash, Darren; Galloway, Melanie; Chen, Yen-Ju; Waters, Michael; Santos, Cayetano; Pham, Bo
Subject: RE: Briefing of Chariman Burns
Importance: High

Good Morning,

The briefing on the IP3 transformer event for Chairman Burns is confirmed for **3pm today (05/12/15)** for 30 minutes. The Chairman has requested a full timeline of the event, including any available pictures and diagrams. Specifically, he would like to know:

- What caused the failure of the transformer?
- Do we know how much oil was spilled into the environment?
- Was the firefighting foam used biodegradable? How so?
- Do we have any more details wrt the governor's access to the site? Did the governor call ahead of time?

He would also like a debrief on RI/OI coordinated US Attorney's briefing that's planned for today.

Please let me know if you have any questions. I will work with the Chairman's administrative assistant to send a scheduler and bridgeline information for the meeting.

Regards,

Kim

Kimyata Morgan Butler
Executive Technical Assistant
Office of the Executive Director for Operations
US Nuclear Regulatory Commission
301-415-0733 (office)

(b)(6) (bb)

From: Lew, David

Sent: Tuesday, May 12, 2015 8:34 AM

To: Nieh, Ho; Lorson, Raymond; Trapp, James; Scott, Michael; Dorman, Dan; Dean, Bill; Evans, Michele; Holian, Brian; McDermott, Brian

Cc: MorganButler, Kimyata; Tracy, Glenn; Weber, Michael

Subject: Briefing of Chariman Burns

I spoke with Kim and the Chairman would like a briefing on the IP3 transformer event. There are some very specific questions which Kim will forward. I indicated that we can support any time, but based on our seminar schedule, after 2:15 pm would be preferable. Region I will have the lead for the briefing. Kim will reach out to NRR and NSIR staff for awareness and interest in participating. Separately, the DOJ call is currently scheduled for 11:30 am. Let me know if you have any questions.

David C. Lew

Deputy Regional Administrator, Region I

610-337-5340

McKenzie, Kieta

From: Stewart, Scott
Sent: Tuesday, May 12, 2015 12:44 PM
To: Scott, Michael; Setzer, Thomas
Cc: Nieh, Ho
Subject: RE: Briefing of Chariman Burns

Dan Gagnon (security mgr) told me the governor showed at the site entrance unannounced, within the hour of the event. The security department was stressed with the fire departments being processed and escorted, the event in progress, and the heightened risk the situation presented. The governor requested special consideration but the security staff did not have authorization to grant him special access, like the state police or fire department responders for example. They searched his vehicle and made him fill out some paperwork, all characterized as expedited by Mr. Gagnon. He was escorted onsite by the fire marshal because he was the only available individual. John Ventosa (Sr. VP) met with the governor on his Sunday return.

From: Scott, Michael
Sent: Tuesday, May 12, 2015 12:01 PM
To: Stewart, Scott; Setzer, Thomas
Cc: Nieh, Ho
Subject: RE: Briefing of Chariman Burns

Scott:

I think the Q regarding the governor was whether he was unnecessarily delayed entry to the site. Hence the question about whether he called ahead. Evidently he complained about how long it took. From one angle, it took what it took to verify his identity. But if he called ahead, did licensee expeditiously process him in?

Thanks

Mike

From: Stewart, Scott
Sent: Tuesday, May 12, 2015 10:31 AM
To: Scott, Michael; Setzer, Thomas
Cc: Nieh, Ho
Subject: RE: Briefing of Chariman Burns

See below

From: Scott, Michael
Sent: Tuesday, May 12, 2015 10:09 AM
To: Setzer, Thomas; Stewart, Scott
Cc: Nieh, Ho
Subject: Fwd: Briefing of Chariman Burns

I assume we would want Tom and Scott on this discussion if available. Some DRS scope perhaps as well.

From: "MorganButler, Kimyata" <Kimyata.MorganButler@nrc.gov>

Subject: RE: Briefing of Chariman Burns

Date: 12 May 2015 09:26

To: "Lew, David" <David.Lew@nrc.gov>, "Nieh, Ho" <Ho.Nieh@nrc.gov>, "Lorson, Raymond" <Raymond.Lorson@nrc.gov>, "Trapp, James" <James.Trapp@nrc.gov>, "Scott, Michael" <Michael.Scott@nrc.gov>, "Dorman, Dan" <Dan.Dorman@nrc.gov>, "Dean, Bill" <Bill.Dean@nrc.gov>, "Evans, Michele" <Michele.Evans@nrc.gov>, "Holian, Brian" <Brian.Holian@nrc.gov>, "McDermott, Brian" <Brian.McDermott@nrc.gov>

Cc: "Tracy, Glenn" <Glenn.Tracy@nrc.gov>, "Weber, Michael" <Michael.Weber@nrc.gov>, "Ash, Darren" <Darren.Ash@nrc.gov>, "Galloway, Melanie" <Melanie.Galloway@nrc.gov>, "Chen, Yen-Ju" <Yen-Ju.Chen@nrc.gov>, "Waters, Michael" <Michael.Waters@nrc.gov>, "Santos, Cayetano" <Cayetano.Santos@nrc.gov>, "Pham, Bo" <Bo.Pham@nrc.gov>

Good Morning,

The briefing on the IP3 transformer event for Chairman Burns is confirmed for **3pm today (05/12/15)** for 30 minutes. The Chairman has requested a full timeline of the event, including any available pictures and diagrams. Specifically, he would like to know:

- What caused the failure of the transformer? Unknown at this time, catastrophic failure will require an autopsy to be conducted by the licensee.
- Do we know how much oil was spilled into the environment? Started with approx. 20.7K gallons, approx. 1500 recovered so far. Lots of oil observed on the rocks in the moat, oil was burned in the fire. Licensee is developing an inventory that is in progress.
- Was the firefighting foam used biodegradable? How so? Yes. protein based foam that degraded to a black oil like film in about 48 hours. The licensee is cleaning up the foam as it may contain oil residue.
- Do we have any more details wrt the governor's access to the site? Did the governor call ahead of time? Governor was processed in as a visitor within an hour or two of the event. He apparently was in the area. Governor returned on Sunday and was greeted by Entergy executives.

He would also like a debrief on RI/OI coordinated US Attorney's briefing that's planned for today.

Please let me know if you have any questions. I will work with the Chairman's administrative assistant to send a scheduler and bridgeline information for the meeting.

Regards,

Kim

Kimyata Morgan Butler
Executive Technical Assistant
Office of the Executive Director for Operations
US Nuclear Regulatory Commission
301-415-0733 (office)

(b)(6) (bb)

From: Lew, David

Sent: Tuesday, May 12, 2015 8:34 AM

To: Nieh, Ho; Lorson, Raymond; Trapp, James; Scott, Michael; Dorman, Dan; Dean, Bill; Evans, Michele; Holian, Brian; McDermott, Brian

Cc: MorganButler, Kimyata; Tracy, Glenn; Weber, Michael

Subject: Briefing of Chariman Burns

I spoke with Kim and the Chairman would like a briefing on the IP3 transformer event. There are some very specific questions which Kim will forward. I indicated that we can support any time, but based on our seminar schedule, after 2:15 pm would be preferable. Region I will have the lead for the briefing. Kim will reach out to NRR and NSIR staff for awareness and interest in participating. Separately, the DOJ call is currently scheduled for 11:30 am. Let me know if you have any questions.

David C. Lew
Deputy Regional Administrator, Region I
610-337-5340

Schmidt, Wayne

From: Zimmerman, Jacob
Sent: Tuesday, May 12, 2015 11:19 AM
To: Rogge, John
Cc: Setzer, Thomas; Schmidt, Wayne; Stewart, Scott; Lubinski, John; Lund, Louise
Subject: Re: Briefing of Chariman Burns

Thanks John.

The EEEB will remain in standby to support Region 1, as needed.

Jake

From: Rogge, John
Sent: Tuesday, May 12, 2015 10:58 AM
To: Zimmerman, Jacob
Cc: Setzer, Thomas; Schmidt, Wayne; Stewart, Scott
Subject: RE: Briefing of Chariman Burns

Thanks, currently we are doing fact gathering and working the MC 309 process. Licensee has held info close but we will get a brief at 11. So far we remain in resident followup to an event.

Last time this transformer failed we think was 2007. No big deal as far as agency response.

We have licensee brief, elected official brief and DOJ brief to get through.

From: Zimmerman, Jacob
Sent: Tuesday, May 12, 2015 10:41 AM
To: Rogge, John; Burritt, Arthur
Subject: FW: Briefing of Chariman Burns

Good morning John/Arthur

The Electrical Engineering Branch (NRR/DE) is here to support you, if needed. My management (John Lubinski, Director, Division of Engineering) has asked that I call into today's Chairman briefing on the IP3 transformer failure. I along with a few members of my staff will call into the briefing from my office at HQ.

Do you need support from the EEEB?

Very respectfully,

Jake

Jacob I. Zimmerman, Chief
Electrical Engineering Branch
Division of Engineering
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

E-mail: Jacob.Zimmerman@nrc.gov | Office: (301) 415-1220 |

NRC – One Mission – One Team – Many Voices

From: Lubinski, John
Sent: Tuesday, May 12, 2015 9:45 AM
To: Zimmerman, Jacob; Lund, Louise
Cc: Ross-Lee, MaryJane; MorganButler, Kimyata; Evans, Michele; Mathew, Roy; Miller, Chris; Marshall, Jane
Subject: FW: Briefing of Chariman Burns

Jake and Louise,

While starting to type this, Kim called.

I told her I would be asking Jake to reach out to Region I to determine if they need our support. Jake – can you please reach to Region I?

If not needed, we can still listen on a phone bridge. Kim will send it to us. Jake – can you please listen in.

Thanks

From: Evans, Michele
Sent: Tuesday, May 12, 2015 9:37 AM
To: Dean, Bill; Uhle, Jennifer; Lubinski, John; Ross-Lee, MaryJane; Wilson, George; Lund, Louise
Cc: Dudek, Michael; MorganButler, Kimyata
Subject: RE: Briefing of Chariman Burns

I just spoke with Kimyata and she will contact DORL and DE, to clarify roles and make sure we are involved as needed.

Michele

From: Dean, Bill
Sent: Tuesday, May 12, 2015 9:29 AM
To: Evans, Michele; Uhle, Jennifer; Lubinski, John; Ross-Lee, MaryJane
Subject: FW: Briefing of Chariman Burns
Importance: High

Just wondering if we are supporting this. I am up in Region I and can convey anything you like/need to their management.

From: MorganButler, Kimyata
Sent: Tuesday, May 12, 2015 9:26 AM
To: Lew, David; Nieh, Ho; Lorson, Raymond; Trapp, James; Scott, Michael; Dorman, Dan; Dean, Bill; Evans, Michele; Holian, Brian; McDermott, Brian
Cc: Tracy, Glenn; Weber, Michael; Ash, Darren; Galloway, Melanie; Chen, Yen-Ju; Waters, Michael; Santos, Cayetano; Pham, Bo
Subject: RE: Briefing of Chariman Burns
Importance: High

Good Morning,

The briefing on the IP3 transformer event for Chairman Burns is confirmed for **3pm today (05/12/15)** for 30 minutes. The Chairman has requested a full timeline of the event, including any available pictures and diagrams. Specifically, he would like to know:

- What caused the failure of the transformer?
- Do we know how much oil was spilled into the environment?
- Was the firefighting foam used biodegradable? How so?
- Do we have any more details wrt the governor's access to the site? Did the governor call ahead of time?

He would also like a debrief on RI/OI coordinated US Attorney's briefing that's planned for today.

Please let me know if you have any questions. I will work with the Chairman's administrative assistant to send a scheduler and bridgeline information for the meeting.

Regards,

Kim

Kimyata Morgan Butler
Executive Technical Assistant
Office of the Executive Director for Operations
US Nuclear Regulatory Commission
301-415-0733 (office)

(b)(6) (bb)

From: Lew, David

Sent: Tuesday, May 12, 2015 8:34 AM

To: Nieh, Ho; Lorson, Raymond; Trapp, James; Scott, Michael; Dorman, Dan; Dean, Bill; Evans, Michele; Holian, Brian; McDermott, Brian

Cc: MorganButler, Kimyata; Tracy, Glenn; Weber, Michael

Subject: Briefing of Chariman Burns

I spoke with Kim and the Chairman would like a briefing on the IP3 transformer event. There are some very specific questions which Kim will forward. I indicated that we can support any time, but based on our seminar schedule, after 2:15 pm would be preferable. Region I will have the lead for the briefing. Kim will reach out to NRR and NSIR staff for awareness and interest in participating. Separately, the DOJ call is currently scheduled for 11:30 am. Let me know if you have any questions.

David C. Lew

Deputy Regional Administrator, Region I

610-337-5340

Trapp, James

From: Tiff, Doug
Sent: Tuesday, May 12, 2015 10:41 AM
To: Trapp, James; Nieh, Ho; Schmidt, Wayne
Subject: FW: Invitation from Larry Coyle at Indian Point Energy Center
Attachments: Invitation from Larry Coyle at Indian Point Energy Center

From: Screnci, Diane
Sent: Monday, May 11, 2015 3:03 PM
To: Lew, David; Dorman, Dan
Cc: Tiff, Doug; Nieh, Ho; Scott, Michael; Setzer, Thomas; Burritt, Arthur; Dacus, Eugene
Subject: RE: Invitation from Larry Coyle at Indian Point Energy Center

FYI.... Resending the Entergy call is at 11.

Diane Screnci
Sr. Public Affairs Officer
US Nuclear Regulatory Commission, RI
610/337-5330

From: Screnci, Diane
Sent: Monday, May 11, 2015 3:01 PM
To: 'Lew, David'; Dorman, Dan
Cc: 'Douglas Tiff'; Nieh, Ho; Scott, Michael; 'Thomas Setzer'; Burritt, Arthur; Dacus, Eugene
Subject: FW: Invitation from Larry Coyle at Indian Point Energy Center

FYI

Diane Screnci
Sr. Public Affairs Officer
US Nuclear Regulatory Commission, RI
610/337-5330

From: Fay, Deborah [<mailto:DFay1@entergy.com>]
Sent: Monday, May 11, 2015 2:52 PM
To: 'nas@nrc.gov'; 'nancy.mcnamara@nrc.gov'; 'joseph.furia@nrc.gov'; 'diane.screnci@nrc.gov'; cody_peluso@schumer.senate.gov; brandon_graham@schumer.senate.gov; brian_greer@schumer.senate.gov; geri_shapiro@gillibrand.senate.gov; Spear, Susan (Gillibrand) (Susan_Spear@gillibrand.senate.gov); Baugh, Jordan (Gillibrand) (Jordan_Baugh@gillibrand.senate.gov) (Jordan_Baugh@gillibrand.senate.gov); sara.levine@mail.house.gov; Pat Keegan (pat.keegan@mail.house.gov); 'bryant.daniels@mail.house.gov' (bryant.daniels@mail.house.gov); joseph.donat@mail.house.gov; Weil, Jenny
Cc: Nappi, Jerry; Kakridas, Patricia; Theobalds, Kenneth; TWOMEY, T. MICHAEL; Fay, Deborah; Coyle, Lawrence; Mayer, Donald M; Fernandez, Joanne; Ventosa, John A; Leitmann, Christina
Subject: Invitation from Larry Coyle at Indian Point Energy Center



Indian Point Energy Center

A large, handwritten signature in black ink, appearing to be "CWH".

I invite you to a Stakeholder Informational Conference Call on Tuesday, May 12. This meeting is part of Entergy's continuing effort to share information about Indian Point and our recent transformer issue with you.

The call will begin at 9:00 a.m. and the dial in number is 1-855-266-3111, meeting ID (b)(6)

If you have any questions please contact Deb Fay at 914-671-9976.

Sincerely,
Larry Coyle
Site Vice President, Indian Point Energy Center

McKenzie, Kieta

From: Setzer, Thomas
Sent: Tuesday, May 12, 2015 11:03 AM
To: Teator, Jeffrey; Stewart, Scott; Lorson, Raymond; Langan, Scott; Nieh, Ho
Cc: Burritt, Arthur; Scott, Michael; Trapp, James; Dorman, Dan; Lew, David
Subject: RE: DOJ telecon on IP3 event

Please forward on the bridgeline information. Thank you.

-----Original Message-----

From: Teator, Jeffrey
Sent: Tuesday, May 12, 2015 7:43 AM
To: Stewart, Scott; Lorson, Raymond; Langan, Scott; Nieh, Ho
Cc: Burritt, Arthur; Setzer, Thomas; Scott, Michael; Trapp, James; Dorman, Dan; Lew, David
Subject: RE: DOJ telecon on IP3 event

The briefing with DOJ has been confirmed for 1130am today. I will provide bridge line information shortly. Jeff

Jeffrey A. Teator
Special Agent in Charge
United States Nuclear Regulatory Commission Office of Investigations Field Office, Region I
2100 Renaissance Blvd., Suite 100
King of Prussia, PA 19406-2713
Office (610) 337-5243
(b)(6)
Fax (610) 337-5131

-----Original Message-----

From: Stewart, Scott
Sent: Tuesday, May 12, 2015 7:35 AM
To: Lorson, Raymond; Langan, Scott; Teator, Jeffrey; Nieh, Ho
Cc: Burritt, Arthur; Setzer, Thomas; Scott, Michael; Trapp, James; Dorman, Dan; Lew, David
Subject: RE: DOJ telecon on IP3 event

I'm available. I would need a bridge number; Scott

-----Original Message-----

From: Lorson, Raymond
Sent: Monday, May 11, 2015 9:57 PM
To: Langan, Scott; Teator, Jeffrey; Nieh, Ho; Stewart, Scott
Cc: Burritt, Arthur; Setzer, Thomas; Scott, Michael; Trapp, James; Dorman, Dan; Lew, David
Subject: RE: DOJ telecon on IP3 event

Thanks Scott - I think that provides a good summary of what DOJ hopes to learn from the briefing.

Ray

From: Langan, Scott
Sent: Monday, May 11, 2015 6:50 PM
To: Lorson, Raymond; Teator, Jeffrey; Nieh, Ho; Stewart, Scott
Cc: Burritt, Arthur; Setzer, Thomas; Scott, Michael; Trapp, James; Dorman, Dan; Lew, David

Subject: Re: DOJ telecon on IP3 event

Ray,

They are looking for a briefing from the inspection side regarding what occurred, what is reportable to the NRC and why, current status of the matter, what other agencies are involved (ex. EPA), and what, if anything, we regulate regarding this matter.

I hope this helps,
Scott L.

----- Original Message -----

From: Lorson, Raymond
Sent: Monday, May 11, 2015 06:30 PM
To: Teator, Jeffrey; Nieh, Ho; Stewart, Scott
Cc: Burritt, Arthur; Setzer, Thomas; Scott, Michael; Trapp, James; Dorman, Dan; Lew, David; Langan, Scott
Subject: RE: DOJ telecon on IP3 event

Jeff any specific questions or areas that doj would like for us to address?

Ray

From: Teator, Jeffrey
Sent: Monday, May 11, 2015 6:03 PM
To: Nieh, Ho; Stewart, Scott
Cc: Lorson, Raymond; Burritt, Arthur; Setzer, Thomas; Scott, Michael; Trapp, James; Dorman, Dan; Lew, David; Langan, Scott
Subject: Re: DOJ telecon on IP3 event

DOJ has requested a 1130am telcon brief tomorrow. Please confirm whether the technical staff can support that time. OI will provide the bridge line info to everyone tomorrow morning. Jeff

From: Nieh, Ho
Sent: Monday, May 11, 2015 04:39 PM
To: Stewart, Scott
Cc: Teator, Jeffrey; Lorson, Raymond; Burritt, Arthur; Setzer, Thomas; Scott, Michael; Trapp, James
Subject: DOJ telecon on IP3 event

Scott – can you support a technical brief with DOJ staff tomorrow AM? They would like to get some more information from us.

Please reply to all with your availability tomorrow so Jeff Teator can help us make the arrangements.

Thanks,

Ho Nieh
Director, Division of Reactor Projects
U.S. Nuclear Regulatory Commission Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406
(610) 337-5229 (Office)
(b)(6) (Mobile)
(610) 337-6928 (Fax)
ho.nieh@nrc.gov<mailto:ho.nieh@nrc.gov>

Siwy, Andrew

From: Screnci, Diane
Sent: Wednesday, May 13, 2015 2:08 PM
To: Setzer, Thomas; McNamara, Nancy; Dorman, Dan; Nieh, Ho
Cc: Burritt, Arthur; Scott, Michael; Lew, David; Tift, Doug; Sheehan, Neil; Klukan, Brett
Subject: RE: IP AAM additional information needs

Some of those questions were answered by Entergy on their call yesterday. Gerri asked them those questions, also.

Diane Screnci
Sr. Public Affairs Officer
US Nuclear Regulatory Commission, RI
610/337-5330

-----Original Message-----

From: Setzer, Thomas
Sent: Wednesday, May 13, 2015 8:56 AM
To: McNamara, Nancy; Dorman, Dan; Nieh, Ho
Cc: Burritt, Arthur; Scott, Michael; Lew, David; Screnci, Diane; Tift, Doug; Sheehan, Neil; Klukan, Brett
Subject: RE: IP AAM additional information needs

Gerri's questions were (I should have answers this afternoon):

1. What is the periodicity of oil replacements for the #31 main transformer?
2. Was the oil replaced in previous outages?
3. If the oil was not replaced in the most recent outage, why not?
4. Is the significance of a fire increased if the oil is not replaced?

I will send on the answers and Diane can copy to her blog if she would like to.

TOM

-----Original Message-----

From: McNamara, Nancy
Sent: Wednesday, May 13, 2015 8:51 AM
To: Dorman, Dan; Nieh, Ho
Cc: Setzer, Thomas; Burritt, Arthur; Scott, Michael; Lew, David; Screnci, Diane; Tift, Doug; Sheehan, Neil; Klukan, Brett
Subject: RE: IP AAM additional information needs

I think it would also be good to add all the questions we received from Geri Shapiro yesterday in case we get something similar.

-----Original Message-----

From: Dorman, Dan
Sent: Wednesday, May 13, 2015 8:50 AM
To: Nieh, Ho
Cc: Setzer, Thomas; Burritt, Arthur; Scott, Michael; Lew, David; Screnci, Diane; McNamara, Nancy; Tift, Doug; Sheehan, Neil; Klukan, Brett
Subject: RE: IP AAM additional information needs

Look at the questions and comments on Diane's blog, in particular were there any precursors that would have suggested that the event could have been anticipated or that a more effective transformer monitoring and maintenance program may have prevented this event? Are there any transformers at Indian Point in more safety-significant applications or locations relative to safety equipment that may be susceptible to similar catastrophic failures?

Thanks

Dan

-----Original Message-----

From: Nieh, Ho

Sent: Tuesday, May 12, 2015 8:01 PM

To: Dorman, Dan

Cc: Setzer, Thomas; Burritt, Arthur; Scott, Michael; Lew, David; Scenci, Diane; McNamara, Nancy; Tift, Doug;

Sheehan, Neil; Klukan, Brett

Subject: IP AAM additional information needs

Hi Dan - Given the IP3 transformer NOUE, I think we need to:

- Develop a one-pager of key messages for the 5/9 NOUE, including messages on what happened; our next steps; the oil spill not being under our purview; what we know that the licensee is doing to remedy the oil spill; and the Brodsky fire exemption challenge being related to Heymc fire barriers, which was not a factor in the event

- Update the summary of transformer issues one-pager to add the most recent failure bringing the total up to 4 failures since 2007

Is there anything else that you (or anyone on cc) can think of that would be helpful to our team?

Please let me know so DRP can get moving on making sure we've got everything updated for next week.

Thanks,

Ho Nieh

Director, Division of Reactor Projects

U.S. Nuclear Regulatory Commission Region 1

2100 Renaissance Boulevard, Suite 100

King of Prussia, PA 19406

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(b)(6) Mobile]

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ho.nieh@nrc.gov

McKenzie, Kieta

From: Scott, Michael
Sent: Wednesday, May 13, 2015 5:03 PM
To: Nieh, Ho; Dorman, Dan; Lew, David; Lorson, Raymond; Trapp, James; Collins, Daniel; Baker, Pamela; Walker, Tracy; Screnci, Diane; Sheehan, Neil; McNamara, Nancy; Tifft, Doug; Klukan, Brett; Bickett, Brice; Nick, Joseph
Subject: DRP UPDATE - WEDNESDAY, MAY 13, 2015

Events

- None

Plants

Outside of Scope

- IP3 – Still troubleshooting ground alarms on battery chargers. Licensee has concluded that the water intrusion a safety-related switchgear room posed little risk to the switchgear therein because there is a clear flowpath for water out of the room to a nearby sump. Staff expects to sign off IMC 0309 review tomorrow; initial risk input suggests reactive inspection unlikely.

Other

- None.

C-4/5

McKenzie, Kieta

From: Setzer, Thomas
Sent: Wednesday, May 13, 2015 10:32 AM
To: Sheehan, Neil; McNamara, Nancy; Screnci, Diane; Rogge, John
Cc: Burritt, Arthur; Scott, Michael; Lew, David; Tifft, Doug; Klukan, Brett; Nieh, Ho; Dorman, Dan
Subject: RE: Answers to Geri Shapiro's questions

Yes, exactly, A filter unit.

-----Original Message-----

From: Sheehan, Neil
Sent: Wednesday, May 13, 2015 10:04 AM
To: Setzer, Thomas; McNamara, Nancy; Screnci, Diane; Rogge, John
Cc: Burritt, Arthur; Scott, Michael; Lew, David; Tifft, Doug; Klukan, Brett; Nieh, Ho; Dorman, Dan
Subject: RE: Answers to Geri Shapiro's questions

What does "reconditioning" the oil involve? Filtering it?

-----Original Message-----

From: Setzer, Thomas
Sent: Wednesday, May 13, 2015 9:44 AM
To: McNamara, Nancy; Screnci, Diane; Rogge, John
Cc: Burritt, Arthur; Scott, Michael; Lew, David; Tifft, Doug; Sheehan, Neil; Klukan, Brett; Nieh, Ho; Dorman, Dan
Subject: Answers to Geri Shapiro's questions

John - here are some answers to questions about the transformer at IP that were posed by Geri Shapiro. Please have a look and comment if there are any technical issues

Nancy - please send these to Angel if there arent any objections to the answers.
Diane - use these on your blog if they are appropriate.

1. What is the periodicity of oil replacements for the #31 main transformer?

The oil in transformers is typically not changed out. Entergy has in the past reconditioned the oil in the transformers. This reconditioning removes the oil from the transformer, and routes the oil through filters to "clean" the oil.

2. Was the oil replaced in previous outages?

The oil was not replaced in the last Unit 3 outage. Instead the oil was reconditioned in the last Unit 3 outage (March 2015). It is not typical to replace the oil in the transformer, unless the oil dielectric properties are breaking down. To determine if the oil needs to be reconditioned or replaced, the station does monthly oil samples to look for problems in the transformer oil (the monthly test indicate if there is a need to recondition the oil). In addition, the station does even more extensive oil tests every six months to look for any breakdown in the oil dielectric properties (the six month test may indicate a need replace the oil). The results of the oil samples taken from the transformer did not show that it had degraded, such that it needed to be replaced. However, Entergy decided to recondition the oil. The oil in this transformer was reconditioned in March 2015, as well as in 2013, and when this transformer was put in service in 2007.

3. If the oil was not replaced in the most recent outage, why not?

See Response #2

4. Is the significance of a fire increased if the oil is not replaced?

No. Oil is most likely to burn when it is atomized. Newer oil and older oil will atomize at generally the same rate, and the risk of fire is not reduced with new or old oil.

-----Original Message-----

From: Setzer, Thomas

Sent: Wednesday, May 13, 2015 8:56 AM

To: McNamara, Nancy; Dorman, Dan; Nieh, Ho

Cc: Burritt, Arthur; Scott, Michael; Lew, David; Screnci, Diane; Tiff, Doug; Sheehan, Neil; Klukan, Brett

Subject: RE: IP AAM additional information needs

Geri's questions were (I should have answers this afternoon):

1. What is the periodicity of oil replacements for the #31 main transformer?
2. Was the oil replaced in previous outages?
3. If the oil was not replaced in the most recent outage, why not?
4. Is the significance of a fire increased if the oil is not replaced?

I will send on the answers and Diane can copy to her blog if she would like to.

TOM

-----Original Message-----

From: McNamara, Nancy

Sent: Wednesday, May 13, 2015 8:51 AM

To: Dorman, Dan; Nieh, Ho

Cc: Setzer, Thomas; Burritt, Arthur; Scott, Michael; Lew, David; Screnci, Diane; Tiff, Doug; Sheehan, Neil;

Klukan, Brett

Subject: RE: IP AAM additional information needs

I think it would also be good to add all the questions we received from Geri Shapiro yesterday in case we get something similar.

-----Original Message-----

From: Dorman, Dan

Sent: Wednesday, May 13, 2015 8:50 AM

To: Nieh, Ho

Cc: Setzer, Thomas; Burritt, Arthur; Scott, Michael; Lew, David; Screnci, Diane; McNamara, Nancy; Tiff, Doug; Sheehan, Neil; Klukan, Brett

Subject: RE: IP AAM additional information needs

Look at the questions and comments on Diane's blog, in particular were there any precursors that would have suggested that the event could have been anticipated or that a more effective transformer monitoring and maintenance program may have prevented this event? Are there any transformers at Indian Point in more safety-significant applications or locations relative to safety equipment that may be susceptible to similar catastrophic failures?

Thanks

Dan

-----Original Message-----

From: Nieh, Ho

Sent: Tuesday, May 12, 2015 8:01 PM

To: Dorman, Dan

Cc: Setzer, Thomas; Burritt, Arthur; Scott, Michael; Lew, David; Screnci, Diane; McNamara, Nancy; Tifft, Doug; Sheehan, Neil; Klukan, Brett

Subject: IP AAM additional information needs

Hi Dan - Given the IP3 transformer NOUE, I think we need to:

- Develop a one-pager of key messages for the 5/9 NOUE, including messages on what happened; our next steps; the oil spill not being under our purview; what we know that the licensee is doing to remedy the oil spill; and the Brodsky fire exemption challenge being related to Heymc fire barriers, which was not a factor in the event

- Update the summary of transformer issues one-pager to add the most recent failure bringing the total up to 4 failures since 2007

Is there anything else that you (or anyone on cc) can think of that would be helpful to our team?

Please let me know so DRP can get moving on making sure we've got everything updated for next week.

Thanks,

Ho Nieh

Director, Division of Reactor Projects

U.S. Nuclear Regulatory Commission Region 1

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King of Prussia, PA 19406

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(610) 337-6928 (Fax)

ho.nieh@nrc.gov

Siwy, Andrew

From: Nieh, Ho
Sent: Wednesday, May 13, 2015 2:47 PM
To: Setzer, Thomas; Stewart, Scott; Scott, Michael; Burritt, Arthur
Subject: RE: 0309 status

Thanks Tom.

Ho Nieh
Director, Division of Reactor Projects
U.S. Nuclear Regulatory Commission Region 1
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King of Prussia, PA 19406
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ho.nieh@nrc.gov

From: Setzer, Thomas
Sent: Wednesday, May 13, 2015 2:19 PM
To: Stewart, Scott; Scott, Michael; Nieh, Ho; Burritt, Arthur
Subject: 0309 status

I just met with Wayne. He needs to talk to the IPEC PRA person to complete his risk analysis. The 0309 will likely be finalized tomorrow. Thus far, it is expected that an SIT will not be warranted.

TOM

Siwy, Andrew

From: Tift, Doug
Sent: Thursday, May 14, 2015 3:51 PM
To: Baker, Pamela; Dorman, Dan; Lew, David; Nieh, Ho; Scott, Michael; Lorson, Raymond; Trapp, James; Collins, Daniel; Walker, Tracy; Screnci, Diane; Sheehan, Neil; McNamara, Nancy; Klukan, Brett; Bickett, Brice; Nick, Joseph; Rule, David
Subject: RSLO UPDATE - Thursday May 14. 2015

- We received a request from New York to brief several of their state agencies regarding the Indian Point transformer fire. We will have the call tomorrow (Friday, May 15) from 9:30am to 10am. Ho Nieh has the lead for the call.

Outside of Scope

-Doug

From: Baker, Pamela
Sent: Thursday, May 14, 2015 2:16 PM
To: Dorman, Dan; Lew, David; Nieh, Ho; Scott, Michael; Lorson, Raymond; Trapp, James; Collins, Daniel; Walker, Tracy; Screnci, Diane; Sheehan, Neil; McNamara, Nancy; Tift, Doug; Klukan, Brett; Bickett, Brice; Nick, Joseph; Rule, David
Subject: DRM UPDATE - Thursday May 14. 2015

Outside of Scope

McKenzie, Kieta

From: Burritt, Arthur
Sent: Thursday, May 14, 2015 10:06 PM
To: Nieh, Ho
Subject: RE: IP3 update

My trip is going fine; however, no notable fish.

Regarding the SIT I would like to strongly consider Tom to lead the effort.

-----Original Message-----

From: Nieh, Ho
Sent: Thursday, May 14, 2015 8:03 PM
To: Burritt, Arthur
Subject: IP3 update

Art - hope you're having a good fishing trip.

Am sure that Tom's kept you up to date.

We aligned on launching an SIT next week ... concern is with water intrusion into 480V vital switchgear room.

Tom Setzer's been doing a really great job with all the issues.

Will fill you in when you are back.

Ho Nieh
Director, Division of Reactor Projects
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ho.nieh@nrc.gov

Handwritten signature: C-49

McKenzie, Kieta

From: Lorson, Raymond
Sent: Friday, May 15, 2015 8:57 AM
To: Nieh, Ho; Trapp, James
Cc: Scott, Michael
Subject: RE: IP3 SIT

Sounds good!

-----Original Message-----

From: Nieh, Ho
Sent: Friday, May 15, 2015 5:25 AM
To: Lorson, Raymond; Trapp, James
Cc: Scott, Michael
Subject: RE: IP3 SIT

Thanks Ray - for those same reasons you described, my gut feeling was that DRP should manage the team. However, we wanted to be inclusive of you, Jim and the DRS BCs.

Based on your response, DRP will proceed to designate a team manager.

Ho Nieh
Director, Division of Reactor Projects
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King of Prussia, PA 19406
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ho.nieh@nrc.gov

From: Lorson, Raymond
Sent: Thursday, May 14, 2015 9:15 PM
To: Nieh, Ho; Trapp, James
Cc: Scott, Michael
Subject: RE: IP3 SIT

Ho et el:

Would be happy to assign to a DRS BC; having said that Paul is out for the next 6 weeks (AL + SES CDP), plan to backfill with a variety of short term actors; mostly SRAs (an element in their appraisal); would plan to post when Paul is out for his rotation later in the year;

Mel just led the CC SIT, Don J did Millstone 2 (or 1); Rogge led Millstone 2 (or 3?). Therefore, would suggest a DRP BC be assigned; maybe Silas? Good developmental opportunity and he has done a nice job dealing a myriad of complex OC issues over the past year.

if you prefer that it be led outta DRS; then I would pick Don J or John R; probably Rogge would be a better fit due to the fire protection aspect.

Ray

From: Nieh, Ho
Sent: Thursday, May 14, 2015 6:06 PM
To: Lorson, Raymond; Trapp, James
Cc: Scott, Michael
Subject: IP3 SIT

Ray, Jim – we briefed Dan Dorman and aligned on launching an SIT next week. Safety concern is fire water in-leakage to 480-volt safety switchgear room.

0309 evaluation met the unexpected system interaction criteria and the risk estimate was in the no-inspection/SIT overlap range. Wayne Schmidt did an awesome job supporting this.

Mike and I think that this effort should have a team manager, and that the best way to identify one would be to ask the DRP/DRS BCs to identify a team manager tomorrow.

That team manager would then solicit for support ... looking for folks with fire protection and piping system hydraulics expertise. Envision a team of 2 or 3 persons.

Press release being developed for Monday.

Planning for team onsite either Tuesday or Wednesday.

We're getting the ball rolling on drafting a charter.

Ho Nieh
Director, Division of Reactor Projects
U.S. Nuclear Regulatory Commission Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406
(610) 337-5229 (Office)
[REDACTED] (Mobile)
(610) 337-6928 (Fax)
ho.nieh@nrc.gov<mailto:ho.nieh@nrc.gov>

From: Nieh, Ho
To: Dorman, Dan
Cc: Lorson, Raymond; Trapp, James; Scott, Michael; Morris, Scott; Burnett, Arthur; Dentel, Glenn; Schmidt, Wayne; Lew, David
Subject: IP3 reactive inspection
Date: Friday, May 15, 2015 11:58:54 AM

Dan – Since the risk assessment is in the SIT/AIT overlap region, the process has you make the decision in consultation with the NRR Director.

We'll finalize the risk assessment and MC 0309 so that you can have that discussion with Bill Dean on Monday.

Looks like DRA supports our assessment thus far and recommendation to do an SIT. We can upgrade to an AIT if needed. No objections from DIRS either.

Have a good weekend.

Ho Nieh
Director, Division of Reactor Projects
U.S. Nuclear Regulatory Commission Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406
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[REDACTED] (Mobile)
(610) 337-6928 (Fax)
ho.nieh@nrc.gov

C-51

From: Morris, Scott
To: Nieh, Ho; Howe, Allen
Cc: Dentel, Glenn; Burritt, Arthur; Dorman, Dan; Lew, David; Trapp, James; Lorson, Raymond
Subject: RE: UPDATE - IP3 reactive inspection
Date: Friday, May 15, 2015 11:00:55 AM

Got it ...thanks. Ray/Jim discussed this on our biweekly call this morning.

From: Nieh, Ho
Sent: Friday, May 15, 2015 10:49 AM
To: Morris, Scott; Howe, Allen
Cc: Dentel, Glenn; Burritt, Arthur; Dorman, Dan; Lew, David; Trapp, James; Lorson, Raymond
Subject: UPDATE - IP3 reactive inspection

Scott, Allen – update to info from earlier today.

Our SRA updated our model today and the risk assessment moved into the SIT/AIT overlap range. We've reached out to our counterparts in HQ to get a peer check on that.

Bottom line is likely to still be an SIT and the team would assess whether or not to upgrade after getting on site next week.

Ho

Ho Nieh
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ho.nieh@nrc.gov

Handwritten signature/initials

McKenzie, Kieta

From: Morris, Scott
Sent: Friday, May 15, 2015 8:50 AM
To: Nieh, Ho; Howe, Allen
Cc: Scheetz, Maurin; Lorson, Raymond; Trapp, James
Subject: RE: IP3 transformer explosion event

Thanks Ho. Hope this doesn't turn into a case where IP did not do an adequate job of flood protection walkdowns.

From: Nieh, Ho
Sent: Friday, May 15, 2015 8:00 AM
To: Morris, Scott; Howe, Allen
Cc: Scheetz, Maurin; Lorson, Raymond; Trapp, James
Subject: IP3 transformer explosion event

Allen, Scott – fyi, we made a decision late yesterday to dispatch an SIT to IP3 next week to look at an unexpected system interaction where fire protection water made its way into a very important vital switchgear room.

Risk assessment was in the no inspection/SIT overlap, so no HQ review was needed.

Timing could not have been planned better our AAM is next week and we're expecting 500+ people. With respect to this event, the main focus of the externals has been the small amount of oil that made its way into the Hudson River.

I planned on noting this for info during the Friday call, but may not be able to join the call because I have briefing with NY state at 9:30. Ray and Jim should be on the call.

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McKenzie, Kieta

From: Scott, Michael
Sent: Friday, May 15, 2015 9:02 AM
To: Nieh, Ho; Dorman, Dan; Lew, David; Lorson, Raymond; Trapp, James; Collins, Daniel; Baker, Pamela; Walker, Tracy; Screnci, Diane; Sheehan, Neil; McNamara, Nancy; Tifft, Doug; Klukan, Brett; Bickett, Brice; Nick, Joseph
Subject: DRP UPDATE - FRIDAY, MAY 15, 2015

Events

- None

Plants

Outside of Scope

- IP3 – Decision made to send an SIT to inspect the issue regarding water intrusion into safety-related switchgear room. Team manager to be named and IMC 0309 evaluation to be completed today. Charter will be signed off early next week with expectation that team will be onsite Tuesday or Wednesday. Press release planned for Monday.

Outside of Scope

Handwritten signature/initials

Setzer, Thomas

From: Nieh, Ho
Sent: Friday, May 15, 2015 5:55 PM
To: Newman, Garrett
Cc: Scott, Michael; Burritt, Arthur; Dentel, Glenn; Setzer, Thomas; Pinson, Brandon; Schussler, Jason; Stewart, Scott; Bolger, Allyce; Schmidt, Wayne; Cahill, Christopher; Mangan, Kevin; Lorson, Raymond; Trapp, James; Dorman, Dan; Lew, David
Subject: RE: IP3 Transformer Deluge IMC 0309 Review

Thanks Garrett. I will review this weekend. Will also forward separately to ORA and DRS so we can hit the ground running with this on Monday.

To all who have contributed thus far, it was very impressive to watch you in action. You showed excellent coordination among DRP, DRS, and the SRAs. During our discussions, I saw a sharp focus on safety, outstanding technical competence, and keen awareness of the importance of our communications on issues related to Indian Point.

I think we've ended up at the right decision for inspecting a potential problem with this risk-significant switchgear room.

Have a great weekend.

Thanks,

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From: Newman, Garrett
Sent: Friday, May 15, 2015 4:08 PM
To: Nieh, Ho
Cc: Scott, Michael; Burritt, Arthur; Dentel, Glenn; Setzer, Thomas; Pinson, Brandon; Schussler, Jason; Stewart, Scott; Bolger, Allyce; Schmidt, Wayne
Subject: IP3 Transformer Deluge IMC 0309 Review

Ho,

Attached is the IMC 0309 review prepared by Glenn, Tom, Wayne, and myself for the deluge water intrusion event at Indian Point 3 on Saturday.

Garrett A. Newman
Resident Inspector – Indian Point
914-739-9360 (o)
(b)(6) (c)

Lally, Christopher

From: Setzer, Thomas
Sent: Friday, July 24, 2015 8:41 AM
To: Scott, Michael; Burritt, Arthur
Subject: RE: ~~DO NOT RELEASE~~ - final IP SIT Report

Yes, she had it in time to makke her notifications.

----- Original Message -----

From: "Scott, Michael" <Michael.Scott@nrc.gov>
Date: Thu, July 23, 2015 5:49 PM -0400
To: "Setzer, Thomas" <Thomas.Setzer@nrc.gov>, "Burritt, Arthur" <Arthur.Burritt@nrc.gov>
Subject: RE: DO NOT RELEASE - final IP SIT Report

Thanks. Did Kim Morgan get the word in time to support doing a Commission walkaround? Not sure e-mail would work for that.

From: Setzer, Thomas
Sent: Thursday, July 23, 2015 11:34 AM
To: Sheehan, Neil; Screnci, Diane; Tiff, Doug; McNamara, Nancy
Cc: Nieh, Ho; Scott, Michael; Rich, Sarah; Fuhrmeister, Roy; Stewart, Scott; Burritt, Arthur
Subject: ~~DO NOT RELEASE~~ - final IP SIT Report

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I attached the final SIT report and COMM Plan. Feel free to review and ask any questions. The licensee just received it and is reviewing it. We will speak to the licensee at 1:30 p.m. today. I will let you know when you can release the report. Please see the attached COMM Plan and update below.

Timeline – Thursday, July 23, 2015

Time Sequence	Action	Responsible Organization/Individual
By early morning	SIT report 2015010 is signed	Art Burritt – DRP COMPLETE
~ 10am	Report is scanned into .pdf format and emailed to: Kim Morgan-Butler, EDO Office Use NRC email in Outlook Larry Coyle, Indian Point Site Vice President: LCoyle@entergy.com Bob Walpole, Licensing Manager rwalpol@entergy.com	DRP Admin staff COMPLETE COMPLETE COMPLETE COMPLETE
1:30 pm	Call Larry Coyle, Indian Point Site Vice President, to discuss	Art Burritt – DRP Tom Setzer - DRP

	report details and answer questions: Cell phone number: (b)(6)	
2:30 pm	SLOs email copies of report to State stakeholders and make appropriate notifications and calls	Doug Tiff/Nancy McNamara – SLO
2:30 pm	OCA emails copies of report to Congressional stakeholders and makes calls.	Jenny Weil – OCA
~4pm	Report is released as publically available on ListServ	DRP Admin staff
After 4pm	Answer to stakeholder calls/print media inquiries	Diane Screnci/Neil Sheehan - PAO

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COMMUNICATIONS PLAN
Indian Point Special Inspection Report 2015010
Water Accumulation in Unit 3 Safety-Related Switchgear Room Following
Deluge of a #31 Main Transformer Fire on May 9, 2015

Introduction

On Thursday, July 23, 2015, the NRC will issue the Indian Point Special Inspection report 2015010, which documents the results of a Special Inspection completed on June 24, 2015. This Special Inspection began on May 19, 2015, and was conducted by a four-person team comprised of regional inspectors, a Resident Inspector, and a regional Senior Reactor Analyst.

This SIT was launched to review of the circumstances surrounding the May 9, 2015, water accumulation in the Unit 3 safety-related switchgear room following the 31 main transformer failure and reactor trip event at Indian Point Nuclear Generating Unit 3. This event satisfied the criteria in NRC Inspection Manual Chapter 0309, "Reactive Inspection Decision Basis for Reactors," for conducting a special inspection due to estimated Conditional Core Damage Probability (CCDP) values in the 4 E-6 to 2 E-5 range per the SPAR models.

Background and Summary of Event

On May 9, 2015, at 5:50 p.m., Indian Point Unit 3 experienced a main turbine-generator lockout, main turbine trip, and automatic reactor trip as a result of an explosion and fire on the 31MT. The reactor trip was uncomplicated. All control rods inserted into the reactor core and all safety systems responded as designed.

At 5:52 p.m., the heat from the transformer fire caused activation of the 31MT, 32 main transformer (32MT), unit auxiliary transformer (UAT), and curtain wall fire protection water deluge systems. The site fire brigade responded to the fire after receiving reports and alarms on the Fire Display Control Panel that a fire was present on the 31MT. At 6:01 p.m., Entergy declared a Notification of Unusual Event for an explosion within the station's Protected Area.

At 6:12 p.m., the fire brigade leader ordered securing the deluge system in order to apply foam to the transformer in accordance with station pre-fire plans and oil fire-fighting strategies. Also at this time, water had been reported on the floor in the Unit 3 480V switchgear room. The Unit 3 480V switchgear room houses breakers that power safety-related equipment. Operators attempted to isolate the deluge system; however, the yoke on an isolation valve was broken during operation, which caused the system to leak-by. An alternate valve was used to isolate deluge water to all four deluge systems.

The fire was initially extinguished at 6:15 p.m.; however, it reflashd at 6:37 p.m., at which time Entergy made calls for offsite fire support from Verplanck and Montrose fire departments. Fire and ladder trucks from Verplanck and Montrose fire departments arrived at the site at 6:49 p.m. and 7:15 p.m., respectively, and were later brought into the Protected Area to assist in spraying foam. The fire was extinguished at 8:05 p.m.

The water that accumulated on the floor of the Unit 3 480V switchgear room was initially reported to

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be approximately 1 to 2 inches in depth. The source of this water was determined to be deluge system water that had come from a deluge valve room, which is adjacent to the 480V switchgear room. The deluge valve room houses four deluge system valves; specifically, 31MT, 32MT, UAT, and station auxiliary transformer deluge valves. The deluge valve associated with the curtain wall system is located in the turbine building. In order for a deluge valve to open, a solenoid valve (SOV) associated with each deluge valve opens and bleeds water pressure off a diaphragm assembly. This water is bled to the floor towards a drain. Entergy determined that the water bled from the 31MT, 32MT, and UAT SOVs was unable to completely drain through a floor drain due its limited capacity, and consequently made its way into the 480V switchgear room where it pooled to approximately 1-inch in depth. Operators reported that all the water drained completely within 30 minutes after the deluge system had been isolated.

Key Messages

- Our inspection determined there was no adverse impact to public health or safety as a result of the event.
- We found that the 31 main transformer failure and water that accumulated in the switchgear room did not adversely affect the safe shutdown of the plant. Specifically, plant operators took appropriate actions to isolate the source of the water, which prevented the actual water level (0.4 inch) from reaching the height of safety-related equipment (4.875 inches). The probability that the water would have adversely affected safety-related equipment due to operator errors in isolating the source of water was determined to be extremely small.
- The focus of the SIT was to investigate the water found in the Unit 3 safety-related switchgear room. This water was determined to come from three deluge system solenoid valves located in a room adjacent to the switchgear room that had remained open during the event. The three solenoid valves ported water to the floor, which flowed into the switchgear room. Clogged drains caused the water to accumulate and produce minor flooding (0.4 inch) in the switchgear room.
- Entergy has taken appropriate interim and longer term corrective actions, which has included repairing the solenoid valves and pressure switches, and inspecting/cleaning the floor drains.
- Three full-time NRC resident inspectors continue to closely monitor the licensee's actions at Indian Point.
- This inspection did not review the causes of the failure of the 31 main transformer, nor did it investigate the transformer oil spill into the Hudson River. (This message should be communicated, if needed, in order to correct any false media reports that the SIT was sent to investigate the transformer failure).

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Questions and Answers

1. Were there any violations of NRC requirements as a result of the event?

The report documents one NRC-identified, Green, NCV of Condition 2.H of the Indian Point Unit 3 Facility Operating License DPR-64, "Fire Protection Program," for failure to promptly identify, report, and correct a condition adverse to fire protection. Specifically, solenoid valve (SOV)-230-1, associated with the deluge valve for the 32 main transformer (32MT), was documented to have opened during its 2-year deluge activation tests on April 7, 2011, April 2, 2013, and March 24, 2015, but did not close as designed after the deluge system actuated. This condition was not corrected, and recurred on May 9, 2015, when the deluge system actuated in response to a fire on the 31 main transformer (31MT). Water from the stuck open SOV flowed to the floor and made its way into the switchgear room. After completion of troubleshooting activities, Entergy determined a clogged orifice in the SOV pressure switch prevented the SOV from going closed.

2. How did the NRC determine that a Special Inspection Team was warranted?

The NRC reviewed this event in accordance with Inspection Manual Chapter (IMC) 0309 and concluded that one of the deterministic criteria in Enclosure 1 of IMC 0309 was met. The criterion met was for the significant, unexpected system interaction between the fire protection deluge system and the safety-related switchgear room. The preliminary risk analysis estimated a conditional core damage probability (CCDP) in the 4 E-6 to 2 E-5 range. Based upon the risk analysis and satisfying the deterministic, a Special Inspection Team was launched. The NRC's program for Special Inspections is described in Management Directive 8.3, "Incident Investigation Program."

3. What is the NRC doing about the transformer oil that spilled into the Hudson River?

The failure of the 31MT resulted in transformer oil being released to the Hudson River. The NRC does not regulate oil releases; therefore, the amount of oil or its clean-up is not under our regulatory purview. Entergy notified the National Response Center for the oil spill and is working with the appropriate government agencies.

4. There is an adverse trend of transformer issues at Indian Point. What is the NRC doing to investigate this trend?

Since 2007, Indian Point has had the following transformer issues:

- Indian Point Unit 3 - #31 Main Transformer explosion on April 6, 2007, due to an electrical fault in the 'B' phase high voltage bushing
- Indian Point Unit 2 - #21 Main Transformer explosion on November 7, 2010
- Indian Point Unit 3 – Unit Auxiliary Transformer, removed from service on February 29, 2012, due to high gassing
- Indian Point Unit 3 - #31 Main transformer failure on May 9, 2015

The NRC's ROP inspection program includes inspections that review the impact that non-safety related systems, such as main transformers, have on the plant. This includes inspections of Problem Identification and Resolution (PI&R), Maintenance Rule, and Performance Indicators. The Resident Inspectors have completed an Event-Follow-up inspection of the 31 main transformer

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failure and will document the results in a publically available quarterly report (2015002) due to be available by mid-August 2015. Additionally, the NRC is planning a Maintenance Rule inspection of the 31 main transformer, and a PI&R inspection sample of the transformer issues since 2007. These are planned to be complete by the end of this year, and their results will be published in publically available inspection reports. These inspections will provide insights into Entergy's transformer maintenance and monitoring programs, and will review the causes of the various transformer issues.

5. The report describes the Unit 3 switchgear room floor drains as being clogged. Is there a finding or violation of NRC requirements associated with this concern?

There were no findings or violations regarding the restrictions found in the Unit 3 switchgear room floor drains as a result of this Special Inspection. The NRC is currently conducting inspections of the Unit 3 switchgear room floor drains under the baseline inspection program. The results of this inspection, including any findings or violations, will be publically available.

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1:30 pm	Call Larry Coyle, Indian Point Site Vice President, to discuss report details and answer questions: Cell phone number: <input type="text"/>	Art Burritt – DRP Tom Setzer - DRP
(b)(6) 2:30 pm	SLOs email copies of report to State stakeholders and make appropriate notifications and calls	Doug Tiff/Nancy McNamara – SLO
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