

**From:** Brown, Eva  
**Sent:** 23 Dec 2015 11:21:04 -0500  
**To:** Garmoe, Alex  
**Cc:** Beaulieu, David;Poole, Justin;Wiebe, Joel  
**Subject:** RE: ACTION: Concurrence Requested

Alex,

You have my concurrence on Justin's behalf. We have notified George of our concurrence as well.

Thanks!

Eva Brown  
Senior Project Manager, Quad Cities, Dresden and Clinton  
Plant Licensing Branch III-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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Telephone: (301) 415-2315  
Fax: (301) 415-1222

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**From:** Garmoe, Alex  
**Sent:** Wednesday, December 23, 2015 9:17 AM  
**To:** Brown, Eva <Eva.Brown@nrc.gov>  
**Cc:** Beaulieu, David <David.Beaulieu@nrc.gov>; Poole, Justin <Justin.Poole@nrc.gov>; Wiebe, Joel <Joel.Wiebe@nrc.gov>  
**Subject:** ACTION: Concurrence Requested  
**Importance:** High

Eva,

You have probably heard about the Exelon appeal of a backfit imposed on Braidwood and Byron earlier this fall. In accordance with LIC-202, I have been working with DORL and DPR mgmt. to provide Bill Dean with an acknowledgment letter to the licensee (completed) and a charter for a backfit review panel (in progress). Justine Poole and George Wilson concurred on the draft charter yesterday, however subsequent concurrers requested changes that I believe necessitate re-concurrence. I have attached a red-line/strikeout file showing the changes from Justin's prior concurrence. The changes reflect the desire to provide the panel with more freedom to review the backfit appeal as they deem necessary, rather than specifically prescribing how they should do it.

Since you're acting for Justin and this is a short timeline item, I am **asking for your concurrence** as soon as reasonably achievable on the revised charter, which is available in ADAMS as [ML15355A081](#). Background information for the backfit is available in ADAMS package [ML15355A083](#). Following your concurrence I will work through Trace Orf to seek re-concurrence from George Wilson.

Please let me know if you have any questions.

Thanks,



**Alexander D. Garmoe**

**Senior Project Manager**

Generic Communications Branch (PGCB)  
Division of Policy and Rulemaking (DPR)  
Office of Nuclear Reactor Regulation (NRR)  
Alex.Garmoe@nrc.gov | 301-415-3814

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**From:** Poole, Justin  
**Sent:** Tuesday, December 22, 2015 8:16 AM  
**To:** Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>  
**Cc:** Beaulieu, David <[David.Beaulieu@nrc.gov](mailto:David.Beaulieu@nrc.gov)>; Stuchell, Sheldon <[Sheldon.Stuchell@nrc.gov](mailto:Sheldon.Stuchell@nrc.gov)>; Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>  
**Subject:** RE: ACTION: Concurrence Requested

Alex,

I concur.

Justin

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**From:** Wiebe, Joel  
**Sent:** Monday, December 21, 2015 5:37 PM  
**To:** Poole, Justin <[Justin.Poole@nrc.gov](mailto:Justin.Poole@nrc.gov)>  
**Cc:** Beaulieu, David <[David.Beaulieu@nrc.gov](mailto:David.Beaulieu@nrc.gov)>; Stuchell, Sheldon <[Sheldon.Stuchell@nrc.gov](mailto:Sheldon.Stuchell@nrc.gov)>; Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>  
**Subject:** Re: ACTION: Concurrence Requested

Justin,

I have seen this and agree with this charter.

Joel

---

**From:** Garmoe, Alex  
**Sent:** Monday, December 21, 2015 05:24 PM  
**To:** Poole, Justin; Stuchell, Sheldon  
**Cc:** Beaulieu, David; Wiebe, Joel  
**Subject:** ACTION: Concurrence Requested

Sheldon and Justin,

Your review and concurrence is requested on the draft Charter for the Braidwood/Byron Backfit Review Panel. Because of the short timeline for review of the backfit appeal prescribed in LIC-202, your concurrence is requested as soon as practical and by **Wednesday, December 23**. Please ensure you reply to both myself and Dave Beaulieu since we will be sharing project management duties over Christmas and New Year's weeks. The link below to ML15355A081 is for the draft Charter. To aid in your review, the second link below to ML15355A083 is for the ADAMS package with all associated B/B backfit appeal documents, which includes the initial backfit issuance and the licensee's appeal letter.

[View ADAMS P8 Properties ML15355A081](#)

[Open ADAMS P8 Document \(Backfit Review Panel Charter Regarding December 8, 2015 Exelon Appeal of Imposed Backfit Affecting Braidwood and Byron Stations\)](#)

Package: [ML15355A083](#)

Please don't hesitate to contact me with any questions. Thanks!



**Alexander D. Garmoe**

Senior Project Manager

Generic Communications Branch (PGCB)  
Division of Policy and Rulemaking (DPR)  
Office of Nuclear Reactor Regulation (NRR)  
Alex.Garmoe@nrc.gov | 301-415-3814

**From:** Garmoe, Alex  
**Sent:** 23 Dec 2015 11:31:50 -0500  
**To:** Wilson, George  
**Cc:** Orf, Tracy;Brown, Eva;Beaulieu, David;Wiebe, Joel  
**Subject:** RE: ACTION: Request DORL's concurrence  
**Attachments:** Backfit Review Panel Charter 12-22 to 12-23 changes.docx, Backfit Review Panel Charter 12-23-15.docx

George,

Yesterday you concurred on the draft Backfit Review Panel Charter for the review of Exelon's appeal of a backfit imposed affecting Braidwood and Byron. Subsequent to your concurrence, recommended changes were made that will provide the panel with more flexibility in reviewing the appeal. Based on the changes, I am asking for your re-concurrence by **Monday, December 28**. Joel Wiebe and Eva Brown have reviewed the changes and concur.

Attached is a compare file showing the changes that were made since your prior concurrence. The updated charter is attached and available in ADAMS as [ML15355A081](#).

Please let me know if you have any questions.

Thanks,

Alex

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**From:** Wilson, George  
**Sent:** Tuesday, December 22, 2015 12:06 PM  
**To:** Garmoe, Alex <Alex.Garmoe@nrc.gov>  
**Cc:** Boland, Anne <Anne.Boland@nrc.gov>; Orf, Tracy <Tracy.Orf@nrc.gov>; Krohn, Paul <Paul.Krohn@nrc.gov>; Poole, Justin <Justin.Poole@nrc.gov>  
**Subject:** RE: ACTION: Request DORL's concurrence

DORL concurs on the charter

George Wilson  
Deputy Director  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation  
USNRC  
301-415-1711  
Office O8E4

---

**From:** Orf, Tracy  
**Sent:** Tuesday, December 22, 2015 9:46 AM  
**To:** Wilson, George <[George.Wilson@nrc.gov](mailto:George.Wilson@nrc.gov)>; Krohn, Paul <[Paul.Krohn@nrc.gov](mailto:Paul.Krohn@nrc.gov)>  
**Cc:** Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Lamb, Taylor <[Taylor.Lamb@nrc.gov](mailto:Taylor.Lamb@nrc.gov)>  
**Subject:** FW: ACTION: Request DORL's concurrence

It looks like Justin already concurred. Please respond by email with concurrence to Alex Garmoe by 12/28.

Thanks,

Trace

---

**From:** Dion, Jeanne  
**Sent:** Tuesday, December 22, 2015 9:39 AM  
**To:** Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>; Orf, Tracy <[Tracy.Orf@nrc.gov](mailto:Tracy.Orf@nrc.gov)>; RidsNrrDorl Resource <[RidsNrrDorl.Resource@nrc.gov](mailto:RidsNrrDorl.Resource@nrc.gov)>  
**Cc:** Beaulieu, David <[David.Beaulieu@nrc.gov](mailto:David.Beaulieu@nrc.gov)>; Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>; Wertz, Trent <[Trent.Wertz@nrc.gov](mailto:Trent.Wertz@nrc.gov)>  
**Subject:** RE: ACTION: Request DORL's concurrence

Thanks Alex,  
I am sending your concurrence request to DORL with a due date of Dec 28.

Jeanne

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**From:** Garmoe, Alex  
**Sent:** Tuesday, December 22, 2015 8:57 AM  
**To:** Dion, Jeanne <[Jeanne.Dion@nrc.gov](mailto:Jeanne.Dion@nrc.gov)>  
**Cc:** Beaulieu, David <[David.Beaulieu@nrc.gov](mailto:David.Beaulieu@nrc.gov)>; Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>; Wertz, Trent <[Trent.Wertz@nrc.gov](mailto:Trent.Wertz@nrc.gov)>  
**Subject:** ACTION: Request DORL's concurrence

Jeanne,

Trent Wertz's auto-reply referred me to you in his absence. I have a short-turnaround document that is ready for DORL's division-level concurrence. The document, available in ADAMS as [ML15355A081](#) and attached to this e-mail, is the Charter for a Backfit Review Panel that is being assigned to review an appeal by Exelon for a backfit that was imposed on Braidwood and Byron. The Charter is in the form of a memo from Bill Dean to the individuals he will designate as Panel members. Background information is available in ADAMS Package [ML15355A083](#) and Joel Wiebe, Justin Poole, Paul Krohn, and Anne Boland are familiar with the issue.

The process we are following is documented in LIC-202 and includes fairly short duration timelines (i.e. a public meeting within 4 weeks of the appeal and the backfit review panel's decision forwarded to the licensee within 4 weeks of the public meeting). As a result, I would greatly appreciate DORL's comments and electronic concurrence (Anne, George, or Paul) by **Monday, December 28**. If this request can't be met please let me know and we can discuss alternate options. Please ensure Dave Beaulieu is copied on the reply.

If you have any questions please don't hesitate to ask.



**Alexander D. Garmoe**

**Senior Project Manager**

Generic Communications Branch (PGCB)  
Division of Policy and Rulemaking (DPR)  
Office of Nuclear Reactor Regulation (NRR)  
Alex.Garmoe@nrc.gov | 301-415-3814

**From:** Wilson, George  
**Sent:** 23 Dec 2015 11:53:01 -0500  
**To:** Garmoe, Alex  
**Cc:** Orf, Tracy;Brown, Eva;Beaulieu, David;Wiebe, Joel  
**Subject:** RE: ACTION: Request DORL's concurrence

I concur for DORL on the new revised charter

George Wilson  
Deputy Director  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation  
USNRC  
301-415-1711  
Office O8E4

---

**From:** Garmoe, Alex  
**Sent:** Wednesday, December 23, 2015 11:32 AM  
**To:** Wilson, George <George.Wilson@nrc.gov>  
**Cc:** Orf, Tracy <Tracy.Orf@nrc.gov>; Brown, Eva <Eva.Brown@nrc.gov>; Beaulieu, David <David.Beaulieu@nrc.gov>; Wiebe, Joel <Joel.Wiebe@nrc.gov>  
**Subject:** RE: ACTION: Request DORL's concurrence

George,

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Please let me know if you have any questions.

Thanks,

Alex

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**To:** Wilson, George <[George.Wilson@nrc.gov](mailto:George.Wilson@nrc.gov)>; Krohn, Paul <[Paul.Krohn@nrc.gov](mailto:Paul.Krohn@nrc.gov)>  
**Cc:** Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Lamb, Taylor <[Taylor.Lamb@nrc.gov](mailto:Taylor.Lamb@nrc.gov)>  
**Subject:** FW: ACTION: Request DORL's concurrence

It looks like Justin already concurred. Please respond by email with concurrence to Alex Garmoe by 12/28.

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Trace

---

**From:** Dion, Jeanne  
**Sent:** Tuesday, December 22, 2015 9:39 AM  
**To:** Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>; Orf, Tracy <[Tracy.Orf@nrc.gov](mailto:Tracy.Orf@nrc.gov)>; RidsNrrDorl Resource <[RidsNrrDorl.Resource@nrc.gov](mailto:RidsNrrDorl.Resource@nrc.gov)>  
**Cc:** Beaulieu, David <[David.Beaulieu@nrc.gov](mailto:David.Beaulieu@nrc.gov)>; Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>; Wertz, Trent <[Trent.Wertz@nrc.gov](mailto:Trent.Wertz@nrc.gov)>  
**Subject:** RE: ACTION: Request DORL's concurrence

Thanks Alex,  
I am sending your concurrence request to DORL with a due date of Dec 28.

Jeanne

---

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**Sent:** Tuesday, December 22, 2015 8:57 AM  
**To:** Dion, Jeanne <[Jeanne.Dion@nrc.gov](mailto:Jeanne.Dion@nrc.gov)>  
**Cc:** Beaulieu, David <[David.Beaulieu@nrc.gov](mailto:David.Beaulieu@nrc.gov)>; Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>; Wertz, Trent <[Trent.Wertz@nrc.gov](mailto:Trent.Wertz@nrc.gov)>  
**Subject:** ACTION: Request DORL's concurrence

Jeanne,

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as Panel members. Background information is available in ADAMS Package [ML15355A083](#) and Joel Wiebe, Justin Poole, Paul Krohn, and Anne Boland are familiar with the issue.

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If you have any questions please don't hesitate to ask.



**Alexander D. Garmoe**

**Senior Project Manager**

Generic Communications Branch (PGCB)  
Division of Policy and Rulemaking (DPR)  
Office of Nuclear Reactor Regulation (NRR)  
Alex.Garmoe@nrc.gov | 301-415-3814

**From:** Wiebe, Joel  
**Sent:** 14 Jan 2016 20:15:46 +0000  
**To:** Wiebe, Joel  
**Subject:** RE: AGENDA: Kick Off Meeting to Byron/Braidwood Backfit Review Panel

Or if you would rather I not call in at all, I will accommodate.

Joel

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**From:** Wiebe, Joel  
**Sent:** Thursday, January 14, 2016 2:28 PM  
**To:** Garmoe, Alex  
**Subject:** RE: AGENDA: Kick Off Meeting to Byron/Braidwood Backfit Review Panel

How about if I call in to listen. You can discuss the backfit, I will be available to provide background information, as needed.

Joel

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**From:** Garmoe, Alex  
**Sent:** Thursday, January 14, 2016 2:26 PM  
**To:** Wiebe, Joel  
**Subject:** RE: AGENDA: Kick Off Meeting to Byron/Braidwood Backfit Review Panel

You're more than welcome to call in – I can set up a bridge – but since you're off if you prefer not to then I could discuss the backfit. Your preference.

---

**From:** Wiebe, Joel  
**Sent:** Thursday, January 14, 2016 2:20 PM  
**To:** Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>  
**Subject:** RE: AGENDA: Kick Off Meeting to Byron/Braidwood Backfit Review Panel

Yes, but I would offer the opportunity to Chris Jackson and Jennifer Whitman first.

I am (b)(6). Are you going to set up a conference line? I could drive in, but I would like to avoid it, if possible.

Joel

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**From:** Garmoe, Alex  
**Sent:** Thursday, January 14, 2016 2:15 PM  
**To:** Wiebe, Joel  
**Subject:** FW: AGENDA: Kick Off Meeting to Byron/Braidwood Backfit Review Panel

Joel,

Are you familiar enough with the backfit and appeal to be able to explain it to the panel members tomorrow?

Alex

---

**From:** Bailey, Marissa  
**Sent:** Thursday, January 14, 2016 2:09 PM  
**To:** Gody, Tony <[Tony.Gody@nrc.gov](mailto:Tony.Gody@nrc.gov)>; Gendelman, Adam <[Adam.Gendelman@nrc.gov](mailto:Adam.Gendelman@nrc.gov)>  
**Cc:** Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>; Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>; Beaulieu, David <[David.Beaulieu@nrc.gov](mailto:David.Beaulieu@nrc.gov)>  
**Subject:** AGENDA: Kick Off Meeting to Byron/Braidwood Backfit Review Panel

Tony, Adam - Here's my proposed agenda for our kick off meeting tomorrow. Let me know if there is anything else we need to discuss.

Marissa

---

**Purpose:** Kick off meeting n for panel is chartered with providing a recommendation to NRR Office Director whether a backfit is necessary at Braidwood and Byron and whether the staff's application of the compliance backfit exception is in accordance with § 50.109(a)(4)(i) and appropriate.

**Outcome:** Shared understanding of the Byron/Braidwood backfit issuance and appeal. Alignment on backfit appeal review process, timeline, product and next steps.

**Process:**

- Overview of backfit issuance and appeal
- How we got here (MD 8.4 and LIC-202)
- Methodology for conducting the review
- Public meeting with licensee
- Meeting with NRC review team
- What staff expertise is needed to assist (start to identify possible individuals)
- Timeline for the review
- What is the final product?
- Next steps

**From:** Whitman, Jennifer  
**Sent:** 9 Dec 2015 11:56:00 -0500  
**To:** Wiebe, Joel;Poole, Justin  
**Cc:** Jackson, Christopher;McGinty, Tim;Taylor, Robert  
**Subject:** RE: Backfit appeal one pager

I do not believe there was a one pager. Below is what we sent to DORL for the commission drop-ins with Exelon that are happening tomorrow. This is an updated, simplified version of what was used to brief the ET.

#### Background:

- In 1973, ANS 18.2-1973 was issued and licensees incorporated it into their FSARs. This standard classifies accidents according to frequency of occurrence and preserves this classification by requiring non-escalation.

#### Examples:

Inadvertent safety injection (anticipated operational occurrence (AOO), Condition II) fills the pressurizer and causes water relief through power operated relief valves (PORVs). Unqualified PORVs stick open resulting in a small break loss of coolant accident (SBLOCA, Condition III) with the frequency of an AOO(Condition II), and therefore violation of the design requirements for AOOs.

If, inadvertent safety injection is shown to not fill the pressurizer and PORVs relieve only steam, then the AOO (Condition II) design requirements are met.

- In 2005, Regulatory Issue Summary 2005-29 informs licensees of their commitments to ANS 18.2 and provides examples where the non-escalation requirement has not been met.
- Between 2005 and now several licensees have made improvements to analyses and/or the plant to address this issue.

#### Recent Actions:

The staff issued a compliance backfit to the Braidwood and Byron stations on October 9, 2015. Exelon has until December 9, 2015 to appeal (ML14225A871).

- 3 Chapter 15 events fail to demonstrate compliance with the non-escalation requirement: Inadvertent Operation of the Emergency Core Cooling System; Chemical and Volume Control System Malfunction that Increases RCS Inventory, and Inadvertent Operation of a PORV
- Other issues identified in the same 3 Chapter 15 events including:
  - Non-conservative assumption that PORVs and pressurizer spray are inoperable
  - Prolonged water relief through pressurizer safety valves (PSVs)
    - PSVs are not water-qualified per ASME
    - PSVs are not tested under water-solid conditions
  - Failure to address return to operation as required for analysis of AOOs

- Incorrect statements in UFSAR

---

**From:** Wiebe, Joel

**Sent:** Wednesday, December 09, 2015 11:29 AM

**To:** Poole, Justin <Justin.Poole@nrc.gov>

**Cc:** Jackson, Christopher <Christopher.Jackson@nrc.gov>; Whitman, Jennifer <Jennifer.Whitman@nrc.gov>; McGinty, Tim <Tim.McGinty@nrc.gov>; Taylor, Robert <Robert.Taylor@nrc.gov>

**Subject:** RE: Backfit appeal one pager

I believe that Chris Jackson and Jennifer Whitman briefed the ET, but I am not aware of a one-pager.

As scheduled, I need to (b)(6), but I will draft a one-pager via Work-at-Home by c.o.b.

Joel

---

**From:** Poole, Justin

**Sent:** Wednesday, December 09, 2015 10:17 AM

**To:** Wiebe, Joel

**Subject:** Backfit appeal one pager

**Importance:** High

Joel

Jessie came down and mention that Vic and Mike Johnson are asking for a one pager on the backfit. Did we ever had one from when it got issued?

**From:** Duncan, Eric  
**Sent:** 12 May 2016 08:52:01 -0500  
**To:** Wiebe, Joel  
**Subject:** RE: Backfit Appeal to the EDO

Got it.

Thanks.

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

From: Wiebe, Joel  
Sent: Thursday, May 12, 2016 8:00 AM  
To: Duncan, Eric <Eric.Duncan@nrc.gov>  
Subject: Backfit Appeal to the EDO

<http://www.internal.nrc.gov/policy/directives/catalog/md8.4.pdf>

See page 15 or just search for "appeal"

MD 8.4 is publicly available.

**From:** Wiebe, Joel  
**Sent:** 8 Mar 2016 19:51:48 +0000  
**To:** Garmoe, Alex  
**Subject:** Re: Backfit Meeting RIII Attendance

There were no others.

Joel

---

**From:** Garmoe, Alex  
**Sent:** Tuesday, March 08, 2016 02:49 PM  
**To:** Wiebe, Joel  
**Subject:** Backfit Meeting RIII Attendance

Joel,

Other than Diana, Jim McGhee, and Jason Draper, do you know of any other Region III folks that called in for the meeting yesterday?



**Alexander D. Garmoe**

Senior Project Manager

Generic Communications Branch (PGCB)  
Division of Policy and Rulemaking (DPR)  
Office of Nuclear Reactor Regulation (NRR)  
Alex.Garmoe@nrc.gov | 301-415-3814

**From:** Wiebe, Joel  
**Sent:** 14 Jan 2016 13:31:16 +0000  
**To:** Garmoe, Alex  
**Subject:** RE: Backfit Review Panel

They do want a public meeting. The individual to discuss this with is Dave Gullott. 630-657-2807.

Joel

---

**From:** Garmoe, Alex  
**Sent:** Thursday, January 14, 2016 7:59 AM  
**To:** Wiebe, Joel  
**Cc:** Beaulieu, David  
**Subject:** Backfit Review Panel

Joel,

One of the first things the Backfit Review Panel will need to do is find out whether or not the licensee will want a public meeting to present their position to the panel (we referenced this in the acknowledgment letter from December). Frankly, hopefully they don't because it would negate the need for a lot of extra admin work as the Panel does their review. But if they do then I anticipate we will support the request. From a methodology standpoint, I think the easiest way is to have a phone call and follow-up with an e-mail that will be added to ADAMS as a record of the decision.

Do you have an idea who from Exelon we should contact? We don't want to ask without Marissa, but she'll want to know who to ask. Dave Gullott, assuming he's still corporate Reg Assurance, comes to mind as a possibility.

Thanks!



**Alexander D. Garmoe**

**Senior Project Manager**

Generic Communications Branch (PGCB)  
Division of Policy and Rulemaking (DPR)  
Office of Nuclear Reactor Regulation (NRR)  
Alex.Garmoe@nrc.gov | 301-415-3814



**From:** Poole, Justin  
**Sent:** 10 Feb 2016 08:11:25 -0500  
**To:** Purnell, Blake;Wiebe, Joel  
**Subject:** RE: Braidwood/Byron backfit appeal

There is no 8:15 with RIII management today (don't do Wednesday's) so a short email might be better.

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**From:** Purnell, Blake  
**Sent:** Wednesday, February 10, 2016 8:07 AM  
**To:** Wiebe, Joel <Joel.Wiebe@nrc.gov>  
**Cc:** Poole, Justin <Justin.Poole@nrc.gov>  
**Subject:** RE: Braidwood/Byron backfit appeal

DRP - I think it was Pat Loudon that Paul was specifically talking to. But you and Justin could probably just talk to it during the morning call.

Blake Purnell  
301-415-1380

---

**From:** Wiebe, Joel  
**Sent:** Wednesday, February 10, 2016 8:03 AM  
**To:** Purnell, Blake <[Blake.Purnell@nrc.gov](mailto:Blake.Purnell@nrc.gov)>  
**Cc:** Poole, Justin <[Justin.Poole@nrc.gov](mailto:Justin.Poole@nrc.gov)>  
**Subject:** RE: Braidwood/Byron backfit appeal

Which Region III management want the update?

Joel

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**From:** Purnell, Blake  
**Sent:** Wednesday, February 10, 2016 8:01 AM  
**To:** Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>  
**Cc:** Poole, Justin <[Justin.Poole@nrc.gov](mailto:Justin.Poole@nrc.gov)>  
**Subject:** Braidwood/Byron backfit appeal

Joel,

During Paul Krohn's monthly call with RIII management, the Region asked about the status of the Braidwood/Byron backfit appeal. RIII and Paul would like some update on this action and potential paths forward.

Thanks,

Blake Purnell  
Project Manager  
NRR/DORL/LPL3-2  
ph: 301-415-1380

**From:** Poole, Justin  
**Sent:** 10 Feb 2016 09:40:28 -0500  
**To:** Wiebe, Joel  
**Subject:** RE: Braidwood/Byron backfit appeal

Ok sounds good.

---

**From:** Wiebe, Joel  
**Sent:** Wednesday, February 10, 2016 9:35 AM  
**To:** Poole, Justin <Justin.Poole@nrc.gov>  
**Cc:** Purnell, Blake <Blake.Purnell@nrc.gov>  
**Subject:** RE: Braidwood/Byron backfit appeal

I Briefed the Region III acting BC, John Jandovitz, last week. He is covering this in the End-of-Cycle discussions for Byron and Braidwood today, with me as backup.

Joel

---

**From:** Poole, Justin  
**Sent:** Wednesday, February 10, 2016 8:11 AM  
**To:** Purnell, Blake <[Blake.Purnell@nrc.gov](mailto:Blake.Purnell@nrc.gov)>; Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>  
**Subject:** RE: Braidwood/Byron backfit appeal

There is no 8:15 with RIII management today (don't do Wednesday's) so a short email might be better.

---

**From:** Purnell, Blake  
**Sent:** Wednesday, February 10, 2016 8:07 AM  
**To:** Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>  
**Cc:** Poole, Justin <[Justin.Poole@nrc.gov](mailto:Justin.Poole@nrc.gov)>  
**Subject:** RE: Braidwood/Byron backfit appeal

DRP - I think it was Pat Loudon that Paul was specifically talking to. But you and Justin could probably just talk to it during the morning call.

Blake Purnell  
301-415-1380

---

**From:** Wiebe, Joel  
**Sent:** Wednesday, February 10, 2016 8:03 AM  
**To:** Purnell, Blake <[Blake.Purnell@nrc.gov](mailto:Blake.Purnell@nrc.gov)>  
**Cc:** Poole, Justin <[Justin.Poole@nrc.gov](mailto:Justin.Poole@nrc.gov)>  
**Subject:** RE: Braidwood/Byron backfit appeal

Which Region III management want the update?

Joel

---

**From:** Purnell, Blake  
**Sent:** Wednesday, February 10, 2016 8:01 AM  
**To:** Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>  
**Cc:** Poole, Justin <[Justin.Poole@nrc.gov](mailto:Justin.Poole@nrc.gov)>  
**Subject:** Braidwood/Byron backfit appeal

Joel,

During Paul Krohn's monthly call with RIII management, the Region asked about the status of the Braidwood/Byron backfit appeal. RIII and Paul would like some update on this action and potential paths forward.

Thanks,

Blake Purnell  
Project Manager  
NRR/DORL/LPL3-2  
ph: 301-415-1380

**From:** Garmoe, Alex  
**Sent:** 13 Apr 2016 11:17:07 -0400  
**To:** Wiebe, Joel  
**Subject:** RE: Braidwood/Byron Backfit Status?

Working through management review and concurrence. I'm hoping to provide it to the front office later today for their review and signature when they're ready.

There will be two letters: one to the licensee (Exelon) and one to NEI.

---

**From:** Wiebe, Joel  
**Sent:** Wednesday, April 13, 2016 11:02 AM  
**To:** Garmoe, Alex <Alex.Garmoe@nrc.gov>  
**Subject:** Braidwood/Byron Backfit Status?

Just checking status of appeal response letter.

Joel

---

**From:** Garmoe, Alex  
**Sent:** Monday, March 28, 2016 9:42 AM  
**To:** Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>  
**Cc:** Brown, Eva <[Eva.Brown@nrc.gov](mailto:Eva.Brown@nrc.gov)>  
**Subject:** Quick Backfit Question

Joel/Eva,

In reading the October 9, 2015, issuance of a backfit to Braidwood and Byron (ML14225A871) I noticed the licensee was given 60 days to appeal the backfit. When Region II issued a backfit to Hatch in 2011 (ML111450793) they gave the licensee 30 days to appeal the backfit. When Region II rejected Hatch's backfit appeal back in 2011 (ML112730194) they gave the licensee 30 days to appeal the decision to the EDO. None of the letters point to a specific section in MD 8.4 or NUREG-1409 that stated how long a licensee should be given to appeal a decision, nor did I find anything when I searched the documents.

Since I am currently drafting an appeal response letter to the licensee, in the event the appeal is denied, how long does the licensee have to appeal the decision to the EDO? My gut would say 30 days to be consistent with Hatch but I think we should be able to point somewhere to back up that number.

Thanks for any thoughts!



**Alexander D. Garmoe**

Senior Project Manager

Generic Communications Branch (PGCB)  
Division of Policy and Rulemaking (DPR)  
Office of Nuclear Reactor Regulation (NRR)  
Alex.Garmoe@nrc.gov | 301-415-3814

**From:** Wiebe, Joel  
**Sent:** 13 Sep 2016 14:42:07 +0000  
**To:** Duncan, Eric  
**Subject:** RE: Byron and Braidwood Backfit Appeal

The EDO needs to decide if he should accept the Backfit Review Panel recommendations or accept NRRs current backfit decision. I understand he has decided, but I don't know what that decision is. The EDO decision letter should be issued today.

Joel

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**From:** Duncan, Eric  
**Sent:** Tuesday, September 13, 2016 10:18 AM  
**To:** Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>  
**Subject:** FW: Byron and Braidwood Backfit Appeal

So now what happens?

---

**From:** Bartlett, Bruce  
**Sent:** Monday, August 29, 2016 10:17 AM  
**To:** Sanchez Santiago, Elba <[Elba.SanchezSantiago@nrc.gov](mailto:Elba.SanchezSantiago@nrc.gov)>; Betancourt, Diana X <[Diana.Betancourt@nrc.gov](mailto:Diana.Betancourt@nrc.gov)>; Duncan, Eric <[Eric.Duncan@nrc.gov](mailto:Eric.Duncan@nrc.gov)>; Sargis, Daniel <[Daniel.Sargis@nrc.gov](mailto:Daniel.Sargis@nrc.gov)>; Pusateri, Kevin <[Kevin.Pusateri@nrc.gov](mailto:Kevin.Pusateri@nrc.gov)>; Draper, Jason <[Jason.Draper@nrc.gov](mailto:Jason.Draper@nrc.gov)>; McGhee, James <[James.McGhee@nrc.gov](mailto:James.McGhee@nrc.gov)>  
**Cc:** Nguyen, April <[April.Nguyen@nrc.gov](mailto:April.Nguyen@nrc.gov)>; Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>  
**Subject:** Byron and Braidwood Backfit Appeal

Attached is a copy of the internal letter from the Chairman of the Backfit Review Panel to the EDO. It recommends that he tell Exelon that their appeal was successful. This is not to be shared with the licensee.

Bruce

**From:** Garmoe, Alex  
**Sent:** 19 Aug 2016 14:10:48 +0000  
**To:** Gavrilas, Mirela  
**Subject:** RE: Compliance Backfit One Pager Rev 3.docx  
**Attachments:** Compliance Backfit One Pager Rev 3 updated.docx

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**From:** Gavrilas, Mirela  
**Sent:** Friday, August 19, 2016 9:40 AM  
**To:** Garmoe, Alex  
**Subject:** Compliance Backfit One Pager Rev 3.docx

## Compliance Exception to the Backfit Rule

### Key Messages

- **The Backfit Rule for power reactors (10 CFR 50.109) allows the imposition of new regulatory requirements after prior NRC approval (e.g. issuance of a license), if an analysis is prepared demonstrating that the backfit involves a substantial increase in protection to safety or security, and that the costs are justified by this increase in protection.**
- **However, when the NRC demonstrates in a documented evaluation that a proposed backfit involves adequate protection or compliance with an established NRC requirement or licensee commitment, the NRC does not need to prepare a backfit analysis.**
- **Industry has been increasingly raising concerns that NRC is invoking the compliance exception without a sufficient documented basis, and one licensee recently appealed a compliance backfit to the EDO.**

### Facts

#### **The Backfit Rule for Power Reactors (10 CFR 50.109)**

- A backfit is the imposition of a new or changed interpretation of an NRC regulatory requirement on a licensee or other regulated entity after prior NRC approval (e.g. issuance of a license).
- The Backfit Rule requires the NRC to prepare an analysis demonstrating that the proposed backfit involves a substantial increase in protection to safety or security and that the costs are justified by this increase in protection.
- However, the NRC does not need to prepare the backfit analysis when the NRC demonstrates, in a documented evaluation, that the backfit involves either:
  - reasonable assurance of adequate protection to safety or security
  - compliance with an established NRC requirement or a licensee commitment
- NRC's backfitting guidance is contained in NUREG-1409, "Backfitting Guidelines," Management Directive 8.4, "Management of Facility-specific Backfitting and Information Collection," and Office-level implementing instructions.

#### **NRC is Taking Steps to Address Stakeholder Concerns**

- The NRC is taking steps to ensure the compliance exception continues to be invoked properly and consistent with the requirements of the Backfit Rule and NRC implementing guidance.
- The NRC has developed classroom and online training on backfitting, and continues to refine and expand this training. One area that will be expanded upon in the near future is to provide more detailed guidance on the key elements of the two exceptions and proper documentation to support use of the exceptions.
- The EDO has tasked the CRGR (ML16133A575) with assessing the adequacy of NRC's backfit implementing guidance, training, and knowledge management.

#### **Recent Industry Appeal of a Compliance Backfit**

- A compliance backfit imposed on Braidwood and Byron (ML14225A871) was appealed by Exelon first to the NRR Office Director (ML15342A112), who upheld the backfit (ML16095A204), then appealed to the EDO (ML16154A254), whose review is ongoing as of August 2016.

**From:** Garmoe, Alex  
**Sent:** 19 Aug 2016 14:10:35 +0000  
**To:** Gavrilas, Mirela  
**Subject:** RE: Compliance Backfit Questions and Answers Rev 3.docx  
**Attachments:** Compliance Backfit Questions and Answers Rev 3 updated.docx

---

**From:** Gavrilas, Mirela  
**Sent:** Friday, August 19, 2016 9:40 AM  
**To:** Garmoe, Alex  
**Subject:** Compliance Backfit Questions and Answers Rev 3.docx  
One more



## Compliance Backfit Questions and Answers

### **QUESTION: What is a backfit?**

#### **ANSWER:**

- A backfit is the imposition of a new regulatory requirement on a licensee or other regulated entity after prior NRC approval is provided (e.g., after issuance of a license).

### **QUESTION: What must the NRC do in order to impose a backfit?**

#### **ANSWER:**

- The Backfit Rule (10 CFR 50.109) requires the NRC to prepare an analysis demonstrating that the backfit involves a substantial increase in protection to safety or security, and that the costs are justified by this increase in protection.
- However, the NRC need not prepare the analysis when the NRC demonstrates, in a documented evaluation, that the backfit involves either:
  - reasonable assurance of adequate protection to safety or security
  - compliance with a known and established NRC requirement or licensee commitment

### **QUESTION: What is NRC doing to address industry concerns about excessive use of backfits, particularly the compliance exception?**

#### **ANSWER:**

- The NRC considers every potential backfit against the requirements of the Backfit Rule and the NRC's implementing guidance.
- The NRC has developed classroom and online training on backfitting, and continues to refine and expand this training. One area that will be expanded upon in the near future is to provide more detailed guidance on the key elements of the two exceptions and proper documentation to support use of the exceptions.
- The NRC is developing revised guidance on cost-benefit analysis and consideration of qualitative factors to improve the backfit analyses conducted by staff.
- The EDO tasked the CRGR (ML16133A575) with assessing the adequacy of NRC's backfit implementing guidance, training, and knowledge management.

### **QUESTION: Exelon recently appealed a compliance backfit. What is the NRC doing about that?**

#### **ANSWER:**

- In October 2015, the NRC issued a compliance backfit that affected Exelon's Braidwood and Byron Stations because the NRC became aware that the accident analyses predicted water relief out of relief valves that are not qualified per ASME code to relieve water. The NRC

had previously approved the analyses as part of license amendments in 2001 and 2004 under the belief that the valves were, in fact, water qualified.

- Exelon exercised their right to appeal a backfit decision to the NRR Office Director. The NRR Office Director upheld the backfit based in large part on input from a backfit appeal review panel. Exelon then further appealed the backfit to the EDO.
- A final decision on whether to grant the backfit appeal is expected in late August.

**From:** Dudek, Michael  
**Sent:** 15 Dec 2015 09:15:57 -0500  
**To:** Wiebe, Joel  
**Subject:** RE: One pager on Braidwood-Byron Backfit

Joel – Just a quick question. Did Jessie give you any info as to who the audience was for this? Commission? Vic or Mike?

**Michael I. Dudek | OEDO Executive Technical Assistant | U.S. NRC**

✉: [Michael.Dudek@nrc.gov](mailto:Michael.Dudek@nrc.gov) | ☎: (301) 415-6500 | BB: (b)(6)

---

**From:** Wiebe, Joel  
**Sent:** Friday, December 11, 2015 1:33 PM  
**To:** Dudek, Michael <[Michael.Dudek@nrc.gov](mailto:Michael.Dudek@nrc.gov)>  
**Cc:** Poole, Justin <[Justin.Poole@nrc.gov](mailto:Justin.Poole@nrc.gov)>; Krohn, Paul <[Paul.Krohn@nrc.gov](mailto:Paul.Krohn@nrc.gov)>; Wilson, George <[George.Wilson@nrc.gov](mailto:George.Wilson@nrc.gov)>; Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Quichocho, Jessie <[Jessie.Quichocho@nrc.gov](mailto:Jessie.Quichocho@nrc.gov)>  
**Subject:** RE: One pager on Braidwood-Byron Backfit

As requested by Jessie.

Joel

---

**From:** Quichocho, Jessie  
**Sent:** Friday, December 11, 2015 9:44 AM  
**To:** Wiebe, Joel  
**Cc:** Poole, Justin; Krohn, Paul; Dudek, Michael  
**Subject:** RE: One pager on Braidwood-Byron Backfit

Thanks Joel, this is really good info.

Could you update the one pager and provide to Mike Dudek.

I know it may spill over to the second page but it will be fine for now since it will give clarity.

Thanks again.  
Jessie

---

**From:** Wiebe, Joel  
**Sent:** Friday, December 11, 2015 9:31 AM  
**To:** Quichocho, Jessie <[Jessie.Quichocho@nrc.gov](mailto:Jessie.Quichocho@nrc.gov)>  
**Cc:** Poole, Justin <[Justin.Poole@nrc.gov](mailto:Justin.Poole@nrc.gov)>; Krohn, Paul <[Paul.Krohn@nrc.gov](mailto:Paul.Krohn@nrc.gov)>; Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>  
**Subject:** RE: One pager on Braidwood-Byron Backfit

Condition II - Faults of Moderate Frequency (definition from Byron and Braidwood UFSAR)

These faults, at worst, result in the reactor trip with the plant being capable of returning to operation. By definition, these faults (or events) do not propagate to cause a more

serious fault, i.e., Condition III or IV events. In addition, Condition II events are not expected to result in fuel rod failures or reactor coolant system or secondary system overpressurization.

For this backfit the Condition II fault is the inadvertent operation of the ECCS pumps, which fill the pressurizer. The Braidwood/Byron analysis of this event results in the relief of water through the Safety Relief Valves, which are not ASME qualified to pass water. The staff, therefore, concludes that the SRV will be damaged and not reseal as designed. This results in a loss of coolant accident (leak greater than makeup capability), which is a Condition III event.

The licensee's position is that EPRI testing of these (or maybe similar valves) shows that the valves may leak, but not exceed makeup capability. The staff accepted this explanation in 2001 during a power uprate review and also during a subsequent SRV setpoint change review.

The staff's current position is that the EPRI testing does not show that the SRVs are ASME designed nor routinely tested to pass water and therefore cannot be used in that fashion in an accident analysis.

---

John/Jen,

Feel free to correct/clarify my discussion.

Joel

---

**From:** Quichocho, Jessie  
**Sent:** Thursday, December 10, 2015 5:07 PM  
**To:** Poole, Justin  
**Cc:** Wiebe, Joel  
**Subject:** RE: One pager on Braidwood-Byron Backfit

What does "no progression of Cat II to Cat III events mean?" Define Cat II and Cat III events.

Thanks,  
Jessie

Jessie Quichocho, ETA (NRR)  
301-415-0209

---

**From:** Poole, Justin  
**Sent:** Thursday, December 10, 2015 2:58 PM  
**To:** Quichocho, Jessie <[Jessie.Quichocho@nrc.gov](mailto:Jessie.Quichocho@nrc.gov)>  
**Cc:** Krohn, Paul <[Paul.Krohn@nrc.gov](mailto:Paul.Krohn@nrc.gov)>; Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>  
**Subject:** One pager on Braidwood-Byron Backfit

Jessie,

Per your request, here is a one-pager on the staff's issuance of the Braidwood-Byron backfit for which Exelon recently sent an appeal letter. The backfit was issued on [October 9, 2015](#). Let us know if any further action is required.

Thanks,

*Justin C. Poole*  
*Acting Chief*  
*NRR/DORL/LPL3-2*  
*U.S. Nuclear Regulatory Commission*  
*(301)415-2048*

**From:** GARMOE, Alex D  
**Sent:** 28 Jun 2016 16:12:43 +0000  
**To:** MIZUNO, GEARY S  
**Cc:** SPENCER, MARY B;GENDELMAN, ADAM S  
**Subject:** RE: Public availability of EDO Charter on backfit appeal panel

Last I knew Theresa Clark was going to look into it. I am not aware of any update.

---

**From:** MIZUNO, GEARY S  
**Sent:** Tuesday, June 28, 2016 12:02 PM  
**To:** GARMOE, Alex D  
**Cc:** SPENCER, MARY B ; GENDELMAN, ADAM S  
**Subject:** Public availability of EDO Charter on backfit appeal panel  
Any luck getting the EDO Charter on backfit appeal panel to be changed to publicly-available?  
Geary

**From:** Jandovitz, John  
**Sent:** 5 May 2016 06:16:54 -0500  
**To:** Wiebe, Joel  
**Subject:** RE: Public Talking Points - Braidwood/Byron Backfit Appeal

Thanks Joel very useful

---

**From:** Wiebe, Joel  
**Sent:** Wednesday, May 04, 2016 2:53 PM  
**To:** Duncan, Eric <Eric.Duncan@nrc.gov>; Jandovitz, John <John.Jandovitz@nrc.gov>; Draper, Jason <Jason.Draper@nrc.gov>; McGhee, James <James.McGhee@nrc.gov>; Benjamin, Jamie <Jamie.Benjamin@nrc.gov>; Betancourt, Diana <Diana.Betancourt@nrc.gov>  
**Subject:** FW: Public Talking Points - Braidwood/Byron Backfit Appeal

For information.

Joel

---

**From:** Garmoe, Alex  
**Sent:** Wednesday, May 04, 2016 3:49 PM  
**To:** Wiebe, Joel <Joel.Wiebe@nrc.gov>  
**Subject:** FW: Public Talking Points - Braidwood/Byron Backfit Appeal

Joel – the backfit response letter to Exelon should be public this afternoon or tomorrow morning at the latest. Bill Dean has already called and spoken with Brad Fewell about the coming letter. The attached file has ML numbers for associated documents.

Alex

---

**From:** Garmoe, Alex  
**Sent:** Wednesday, May 04, 2016 2:21 PM  
**To:** Burnell, Scott <Scott.Burnell@nrc.gov>; McIntyre, David <David.McIntyre@nrc.gov>; Dean, Bill <Bill.Dean@nrc.gov>; Evans, Michele <Michele.Evans@nrc.gov>; McDermott, Brian <Brian.McDermott@nrc.gov>; Clark, Theresa <Theresa.Clark@nrc.gov>; Lund, Louise <Louise.Lund@nrc.gov>; Gavrilas, Mirela <Mirela.Gavrilas@nrc.gov>; Stuchell, Sheldon <Sheldon.Stuchell@nrc.gov>; McGinty, Tim <Tim.McGinty@nrc.gov>; Taylor, Robert <Robert.Taylor@nrc.gov>; Bailey, Marissa <Marissa.Bailey@nrc.gov>; Gendelman, Adam <Adam.Gendelman@nrc.gov>; Gody, Tony <Tony.Gody@nrc.gov>  
**Subject:** Public Talking Points - Braidwood/Byron Backfit Appeal

Good afternoon,

The NRC's response to Exelon's compliance backfit appeal is expected to be publicly issued either late this afternoon or tomorrow morning. Following release of the response letter to Exelon, NRC's response to NEI's letter in support of the Exelon appeal will be publicly issued. The attached talking points have been coordinated with DPR, DSS, and OGC and can be used in the event of stakeholder interest.

If you have any questions please don't hesitate to contact Marissa Bailey, Backfit Review Panel Chair, or myself.



**Alexander D. Garmoe**

**Senior Project Manager**

Generic Communications Branch (PGCB)  
Division of Policy and Rulemaking (DPR)  
Office of Nuclear Reactor Regulation (NRR)  
Alex.Garmoe@nrc.gov | 301-415-3814



**From:** Wiebe, Joel  
**Sent:** 28 Mar 2016 14:12:30 +0000  
**To:** Garmoe, Alex  
**Cc:** Brown, Eva  
**Subject:** Re: Quick Backfit Question

There is no specific guidance to point to. I would consult the panel with a recommended 60 days.

Joel

---

**From:** Garmoe, Alex  
**Sent:** Monday, March 28, 2016 09:42 AM  
**To:** Wiebe, Joel  
**Cc:** Brown, Eva  
**Subject:** Quick Backfit Question

Joel/Eva,

In reading the October 9, 2015, issuance of a backfit to Braidwood and Byron (ML14225A871) I noticed the licensee was given 60 days to appeal the backfit. When Region II issued a backfit to Hatch in 2011 (ML111450793) they gave the licensee 30 days to appeal the backfit. When Region II rejected Hatch's backfit appeal back in 2011 (ML112730194) they gave the licensee 30 days to appeal the decision to the EDO. None of the letters point to a specific section in MD 8.4 or NUREG-1409 that stated how long a licensee should be given to appeal a decision, nor did I find anything when I searched the documents.

Since I am currently drafting an appeal response letter to the licensee, in the event the appeal is denied, how long does the licensee have to appeal the decision to the EDO? My gut would say 30 days to be consistent with Hatch but I think we should be able to point somewhere to back up that number.

Thanks for any thoughts!



**Alexander D. Garmoe**

Senior Project Manager

Generic Communications Branch (PGCB)  
Division of Policy and Rulemaking (DPR)  
Office of Nuclear Reactor Regulation (NRR)  
Alex.Garmoe@nrc.gov | 301-415-3814

**From:** Clark, Theresa  
**Sent:** 12 Sep 2016 14:17:35 -0400  
**To:** Lee, Erika;Keene, Todd;Wiebe, Joel;Baxter, Angela;Stuchell, Sheldon  
**Cc:** Rohrer, Shirley;Miller, Ed  
**Subject:** RE: REQUEST: assistance with contacts / Listserv

Thanks—yes, I was thinking that DORL's list (Joel/Ed) would be easiest to use. If one of them (or their branch LA) can help me out, then I can give the ML# as soon as it is signed (if that's what is needed).

---

**From:** Lee, Erika  
**Sent:** Monday, September 12, 2016 1:35 PM  
**To:** Keene, Todd <Todd.Keene@nrc.gov>; Clark, Theresa <Theresa.Clark@nrc.gov>; Wiebe, Joel <Joel.Wiebe@nrc.gov>; Baxter, Angela <Angela.Baxter@nrc.gov>; Stuchell, Sheldon <Sheldon.Stuchell@nrc.gov>  
**Cc:** Rohrer, Shirley <Shirley.Rohrer@nrc.gov>; Miller, Ed <Ed.Miller@nrc.gov>  
**Subject:** RE: REQUEST: assistance with contacts / Listserv

Todd,

It sounds like this letter would only go to those individuals who are subscribed to receive Byron/Braidwood operating reactor correspondence. That list is owned by DORL, and it's different from the list we use to send out generic communications, which is owned by DPR. Unfortunately, it's impossible to tell exactly who is subscribed to the Byron/Braidwood list since the individual's name isn't a required field, but there a few people (4 or 5) who are required to stay on the subscription list, and I believe Congress mandates who those "required" recipients are. In order to get the names of those "required" recipients, you might be able to work with Shirley Rohrer, Licensing Assistant for branch 3-2 in DORL.

I'm copying Ed Miller, DORL's acting branch chief on this correspondence for his awareness. Let me know if you need anything else, or need additional clarification.

Thanks,  
Erika

---

**From:** Keene, Todd  
**Sent:** Monday, September 12, 2016 11:19 AM  
**To:** Clark, Theresa <[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov)>; Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>; Lee, Erika <[Erika.Lee@nrc.gov](mailto:Erika.Lee@nrc.gov)>; Baxter, Angela <[Angela.Baxter@nrc.gov](mailto:Angela.Baxter@nrc.gov)>; Stuchell, Sheldon <[Sheldon.Stuchell@nrc.gov](mailto:Sheldon.Stuchell@nrc.gov)>  
**Subject:** Re: REQUEST: assistance with contacts / Listserv

Theresa,  
Erika Lee or Angie Baxter are the best points of contact for the listserv process.

Todd

----- Original Message -----  
From: "Clark, Theresa" <[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov)>  
Date: Mon, September 12, 2016 11:02 AM -0400

To: "Keene, Todd" <[Todd.Keene@nrc.gov](mailto:Todd.Keene@nrc.gov)>, "Wiebe, Joel" <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>  
Subject: REQUEST: assistance with contacts / Listserv

Hi there – the EDO is finalizing his decision on the Byron/Braidwood backfit appeal, and his decision documents will include a letter to Exelon that will need to be Listserved. Would you guys (or perhaps one of the LAs) be able to help with that? This would likely be tomorrow.

Also, if possible, we would like to get contact phone #s and emails for Bryan Hanson and Brad Fewell. Could you please send me those? Vic would like to have a call with them to communicate the decision when complete.

Thank you!

--

**Theresa Valentine Clark**

Executive Technical Assistant (Reactors)

U.S. Nuclear Regulatory Commission

[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov) | 301-415-4048 | O-16E22

**From:** Clark, Theresa  
**Sent:** 12 Sep 2016 14:17:35 -0400  
**To:** Lee, Erika;Keene, Todd;Wiebe, Joel;Baxter, Angela;Stuchell, Sheldon  
**Cc:** Rohrer, Shirley;Miller, Ed  
**Subject:** RE: REQUEST: assistance with contacts / Listserv

Thanks—yes, I was thinking that DORL's list (Joel/Ed) would be easiest to use. If one of them (or their branch LA) can help me out, then I can give the ML# as soon as it is signed (if that's what is needed).

---

**From:** Lee, Erika  
**Sent:** Monday, September 12, 2016 1:35 PM  
**To:** Keene, Todd <Todd.Keene@nrc.gov>; Clark, Theresa <Theresa.Clark@nrc.gov>; Wiebe, Joel <Joel.Wiebe@nrc.gov>; Baxter, Angela <Angela.Baxter@nrc.gov>; Stuchell, Sheldon <Sheldon.Stuchell@nrc.gov>  
**Cc:** Rohrer, Shirley <Shirley.Rohrer@nrc.gov>; Miller, Ed <Ed.Miller@nrc.gov>  
**Subject:** RE: REQUEST: assistance with contacts / Listserv

Todd,

It sounds like this letter would only go to those individuals who are subscribed to receive Byron/Braidwood operating reactor correspondence. That list is owned by DORL, and it's different from the list we use to send out generic communications, which is owned by DPR. Unfortunately, it's impossible to tell exactly who is subscribed to the Byron/Braidwood list since the individual's name isn't a required field, but there a few people (4 or 5) who are required to stay on the subscription list, and I believe Congress mandates who those "required" recipients are. In order to get the names of those "required" recipients, you might be able to work with Shirley Rohrer, Licensing Assistant for branch 3-2 in DORL.

I'm copying Ed Miller, DORL's acting branch chief on this correspondence for his awareness. Let me know if you need anything else, or need additional clarification.

Thanks,  
Erika

---

**From:** Keene, Todd  
**Sent:** Monday, September 12, 2016 11:19 AM  
**To:** Clark, Theresa <[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov)>; Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>; Lee, Erika <[Erika.Lee@nrc.gov](mailto:Erika.Lee@nrc.gov)>; Baxter, Angela <[Angela.Baxter@nrc.gov](mailto:Angela.Baxter@nrc.gov)>; Stuchell, Sheldon <[Sheldon.Stuchell@nrc.gov](mailto:Sheldon.Stuchell@nrc.gov)>  
**Subject:** Re: REQUEST: assistance with contacts / Listserv

Theresa,  
Erika Lee or Angie Baxter are the best points of contact for the listserve process.

Todd

----- Original Message -----  
From: "Clark, Theresa" <[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov)>  
Date: Mon, September 12, 2016 11:02 AM -0400

To: "Keene, Todd" <[Todd.Keene@nrc.gov](mailto:Todd.Keene@nrc.gov)>, "Wiebe, Joel" <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>  
Subject: REQUEST: assistance with contacts / Listserv

Hi there – the EDO is finalizing his decision on the Byron/Braidwood backfit appeal, and his decision documents will include a letter to Exelon that will need to be Listserved. Would you guys (or perhaps one of the LAs) be able to help with that? This would likely be tomorrow.

Also, if possible, we would like to get contact phone #s and emails for Bryan Hanson and Brad Fewell. Could you please send me those? Vic would like to have a call with them to communicate the decision when complete.

Thank you!

--

**Theresa Valentine Clark**

Executive Technical Assistant (Reactors)

U.S. Nuclear Regulatory Commission

[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov) | 301-415-4048 | O-16E22

**From:** Orf, Tracy  
**Sent:** 12 Sep 2016 14:23:02 -0400  
**To:** Miller, Ed;Wiebe, Joel  
**Subject:** RE: REQUEST: assistance with contacts / Listserv

We would Listserv it as normal. This is not an unusual request.

---

**From:** Miller, Ed  
**Sent:** Monday, September 12, 2016 2:21 PM  
**To:** Orf, Tracy <Tracy.Orf@nrc.gov>; Wiebe, Joel <Joel.Wiebe@nrc.gov>  
**Subject:** FW: REQUEST: assistance with contacts / Listserv

Joel, can you pull the contact info for Bryan Hanson and Brad Fewell that Teresa requested.

Trace, I'm assuming that, from a listserv perspective, we could handle a letter that didn't originate in DORL. Is there anything special they would need to do or should they just mimic the cc via listserv that we usually use?

Ed

---

**From:** Lee, Erika  
**Sent:** Monday, September 12, 2016 1:35 PM  
**To:** Keene, Todd <Todd.Keene@nrc.gov>; Clark, Theresa <Theresa.Clark@nrc.gov>; Wiebe, Joel <Joel.Wiebe@nrc.gov>; Baxter, Angela <Angela.Baxter@nrc.gov>; Stuchell, Sheldon <Sheldon.Stuchell@nrc.gov>  
**Cc:** Rohrer, Shirley <Shirley.Rohrer@nrc.gov>; Miller, Ed <Ed.Miller@nrc.gov>  
**Subject:** RE: REQUEST: assistance with contacts / Listserv

Todd,

It sounds like this letter would only go to those individuals who are subscribed to receive Byron/Braidwood operating reactor correspondence. That list is owned by DORL, and it's different from the list we use to send out generic communications, which is owned by DPR. Unfortunately, it's impossible to tell exactly who is subscribed to the Byron/Braidwood list since the individual's name isn't a required field, but there a few people (4 or 5) who are required to stay on the subscription list, and I believe Congress mandates who those "required" recipients are. In order to get the names of those "required" recipients, you might be able to work with Shirley Rohrer, Licensing Assistant for branch 3-2 in DORL.

I'm copying Ed Miller, DORL's acting branch chief on this correspondence for his awareness. Let me know if you need anything else, or need additional clarification.

Thanks,  
Erika

---

**From:** Keene, Todd  
**Sent:** Monday, September 12, 2016 11:19 AM  
**To:** Clark, Theresa <Theresa.Clark@nrc.gov>; Wiebe, Joel <Joel.Wiebe@nrc.gov>; Lee, Erika <Erika.Lee@nrc.gov>; Baxter, Angela <Angela.Baxter@nrc.gov>; Stuchell, Sheldon

[<Sheldon.Stuchell@nrc.gov>](mailto:Sheldon.Stuchell@nrc.gov)

**Subject:** Re: REQUEST: assistance with contacts / Listserv

Theresa,  
Erika Lee or Angie Baxter are the best points of contact for the listserv process.

Todd

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

From: "Clark, Theresa" <[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov)>

Date: Mon, September 12, 2016 11:02 AM -0400

To: "Keene, Todd" <[Todd.Keene@nrc.gov](mailto:Todd.Keene@nrc.gov)>, "Wiebe, Joel" <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>

Subject: REQUEST: assistance with contacts / Listserv

Hi there – the EDO is finalizing his decision on the Byron/Braidwood backfit appeal, and his decision documents will include a letter to Exelon that will need to be Listserved. Would you guys (or perhaps one of the LAs) be able to help with that? This would likely be tomorrow.

Also, if possible, we would like to get contact phone #s and emails for Bryan Hanson and Brad Fewell. Could you please send me those? Vic would like to have a call with them to communicate the decision when complete.

Thank you!

--

**Theresa Valentine Clark**

Executive Technical Assistant (Reactors)

U.S. Nuclear Regulatory Commission

[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov) | 301-415-4048 | O-16E22

**From:** Clark, Theresa  
**Sent:** 16 Sep 2016 11:54:28 -0400  
**To:** Wiebe, Joel; Lewis, LaShawna  
**Cc:** Keene, Todd; Orf, Tracy; Rohrer, Shirley; Miller, Ed; Brown, Eva  
**Subject:** RE: REQUEST: listserv Exelon letter  
**Attachments:** Backfit Appeal Review Panel Findings (Byron and Braidwood)

Thanks so much! Yes, it's been distributed internally already.

---

**From:** Wiebe, Joel  
**Sent:** Friday, September 16, 2016 11:53 AM  
**To:** Lewis, LaShawna <LaShawna.Lewis@nrc.gov>  
**Cc:** Keene, Todd <Todd.Keene@nrc.gov>; Orf, Tracy <Tracy.Orf@nrc.gov>; Clark, Theresa <Theresa.Clark@nrc.gov>; Rohrer, Shirley <Shirley.Rohrer@nrc.gov>; Miller, Ed <Ed.Miller@nrc.gov>; Brown, Eva <Eva.Brown@nrc.gov>  
**Subject:** RE: REQUEST: listserv Exelon letter

Lashawna,

Can you listserve this? I think the rest of the dispatch will be done upstairs, but you may want to check with Theresa to verify that.

Just listserve it via the normal Byron/Braidwood listserve process.

Joel

---

**From:** Clark, Theresa  
**Sent:** Friday, September 16, 2016 11:39 AM  
**To:** Miller, Ed <Ed.Miller@nrc.gov>; Wiebe, Joel <Joel.Wiebe@nrc.gov>; Rohrer, Shirley <Shirley.Rohrer@nrc.gov>  
**Cc:** Keene, Todd <Todd.Keene@nrc.gov>; Orf, Tracy <Tracy.Orf@nrc.gov>  
**Subject:** REQUEST: listserv Exelon letter  
**Importance:** High

Hi—the letter linked below is now publicly available in ADAMS (public link = [ML16243A067](#)). Could you please help us Listserve it as we had discussed earlier in the week? Let me know if you need any more information. Thanks so much!

[View ADAMS P8 Properties ML16243A067](#)  
[Open ADAMS P8 Document \(09/15/16 Letter to Exelon from Victor McCree.\)](#)

--

**Theresa Valentine Clark**  
Executive Technical Assistant (Reactors)  
U.S. Nuclear Regulatory Commission  
[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov) | 301-415-4048 | O-16E22



**From:** Banks, Eleasah  
**Sent:** 16 Sep 2016 09:06:53 -0400  
**To:** RidsNrrMailCenter Resource;RidsOgcMailCenter Resource;RidsNroMailCenter Resource;RidsResPmdaMail Resource;RidsResOd Resource;RidsNmssOd Resource;RidsRgn1MailCenter Resource;RidsRgn2MailCenter Resource;RidsRgn3MailCenter Resource;RidsRgn4MailCenter Resource;RidsNrrDorlLpl3-2 Resource;RidsNrrPMByron Resource;RidsNrrPMBraidwood Resource;RidsNrrDss Resource;RidsNrrDe Resource;RidsNrrDpr Resource;RidsNrrDorl Resource;Garmoe, Alex;Keene, Todd;Gody, Tony;Gendelman, Adam;Mizuno, Beth;Correia, Richard;West, Khadijah;Bailey, Marissa;Scarbrough, Thomas;Spencer, Michael;Clark, Theresa  
**Subject:** Backfit Appeal Review Panel Findings (Byron and Braidwood)

Date: September 15, 2016

Memorandum To: J. Bradley

From: Victor M. McCree

Subject: Backfit Appeal Review Panel Findings (Byron and Braidwood)

This package is publicly available in ADAMS

[View ADAMS P8 Properties ML16236A198](#)

[Open ADAMS P8 Package \(Backfit Appeal Review Panel Findings \(Byron and Braidwood\)\)](#)

**From:** Dean, Bill  
**Sent:** 11 Aug 2016 16:53:10 -0600  
**To:** Whitman, Jennifer  
**Cc:** McDermott, Brian; McGinty, Tim; Lubinski, John; Billerbeck, John; Benner, Eric; Stuchell, Sheldon; Garmoe, Alex; Alley, David  
**Subject:** RE: Response to Backfit Panel Preliminary Findings

Well, providing them a lengthier response than what we reviewed is pretty compelling! I thought that this was well written, made our points well with facts behind them, and debunks the use of the 1977 SECY upon which the review panel seems to hinge its conclusions on. Nice job by all involved, and I assume you were the lead on this Jen, so special kudos to you.

## BILL

---

**From:** Whitman, Jennifer  
**Sent:** Thursday, August 11, 2016 4:52 PM  
**To:** Dean, Bill <Bill.Dean@nrc.gov>  
**Cc:** McDermott, Brian <Brian.McDermott@nrc.gov>; McGinty, Tim <Tim.McGinty@nrc.gov>; Lubinski, John <John.Lubinski@nrc.gov>; Billerbeck, John <John.Billerbeck@nrc.gov>; Benner, Eric <Eric.Benner@nrc.gov>; Stuchell, Sheldon <Sheldon.Stuchell@nrc.gov>; Garmoe, Alex <Alex.Garmoe@nrc.gov>; Alley, David <David.Alley@nrc.gov>  
**Subject:** Response to Backfit Panel Preliminary Findings

Bill,

We briefed Brian on our attached comments on the Backfit Panel's preliminary findings and wanted to give you a chance to weigh in before we send them back to the Panel on Friday.

Thanks,

Jen

<< File: Backfit Panel Response Final 8-11-16.docx >>

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

**From:** McDermott, Brian  
**Sent:** Wednesday, August 10, 2016 1:41 PM  
**To:** McDermott, Brian; McGinty, Tim; Lubinski, John; Whitman, Jennifer; Billerbeck, John  
**Subject:** Response to Backfit Panel Findings  
**When:** Thursday, August 11, 2016 10:00 AM-10:30 AM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** O13 D14

POC: Jennifer x 3253

**From:** Wiebe, Joel  
**Sent:** 25 Feb 2016 19:38:54 +0000  
**To:** Garmoe, Alex  
**Subject:** RE: Telework/In Office

I am in today, (b)(6).

Joel

---

**From:** Garmoe, Alex  
**Sent:** Thursday, February 25, 2016 2:19 PM  
**To:** Wiebe, Joel <Joel.Wiebe@nrc.gov>  
**Subject:** Telework/In Office

Joel,

I recall you telework some days and are in the office other days. Are you in the office today or tomorrow? I'd like to swing by and update you on the backfit review panel status.



**Alexander D. Garmoe**

**Senior Project Manager**

Generic Communications Branch (PGCB)  
Division of Policy and Rulemaking (DPR)  
Office of Nuclear Reactor Regulation (NRR)  
Alex.Garmoe@nrc.gov | 301-415-3814

**From:** Keene, Todd  
**Sent:** 15 Sep 2016 12:09:34 -0400  
**To:** Whitman, Jennifer;Woodyatt, Diana  
**Subject:** RE: backfit appeal documents signed

Thanks for the reply and the information.  
Alex Garmoe turned this over to me 2 days ago, so I was just getting familiar with it again and then was notified of the EDO's decision.  
He turned over that Diana was the POC while you were TA.  
Sorry for the confusion.  
I am glad you were already aware of the decision.  
I will touch base with DE to get a POC.

Todd

---

**From:** Whitman, Jennifer  
**Sent:** Thursday, September 15, 2016 11:10 AM  
**To:** Keene, Todd ; Woodyatt, Diana  
**Subject:** RE: backfit appeal documents signed

I talked with Tim McGinty today and DSS, DE, and DPR will need to coordinate on the policy issues and decide what place this RIS revision will have. It is my understanding that Tim is going to talk to John about who should be the lead moving forward because the issues/policies in question are the valve qualification issues which belong to DE rather than the system response issues which belong to SRXB.

I agree that it needs to be revised, but not sure the revisions can get started until we align on a path forward.

Also, just FYI Diana hasn't really been a part of this project. I'll let her/Eric decide if she should be included moving forward.

Jen

---

**From:** Keene, Todd  
**Sent:** Thursday, September 15, 2016 11:00 AM  
**To:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Woodyatt, Diana <[Diana.Woodyatt@nrc.gov](mailto:Diana.Woodyatt@nrc.gov)>  
**Subject:** FW: backfit appeal documents signed

Jen / Diana,

The Anticipated transients RIS (RIS 2005-29 Rev 1) will need to be revised based on the EDO overturning the Byron/Braidwood backfit.

Also, please note the specific discussion in the memo to NRR that directs the NRR Office Director to provide the OEDO a plan to address policy and position issues in the original RIS and the proposed revision.

These documents have not been made publically available yet, so do not forward them out of the NRC.

I will set up a time for us to talk and discuss a path forward.

Todd

---

**From:** Clark, Theresa  
**Sent:** Thursday, September 15, 2016 9:59 AM  
**To:** Dean, Bill <[Bill.Dean@nrc.gov](mailto:Bill.Dean@nrc.gov)>; Evans, Michele <[Michele.Evans@nrc.gov](mailto:Michele.Evans@nrc.gov)>; McDermott, Brian <[Brian.McDermott@nrc.gov](mailto:Brian.McDermott@nrc.gov)>; McGinty, Tim <[Tim.McGinty@nrc.gov](mailto:Tim.McGinty@nrc.gov)>; Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Correia, Richard <[Richard.Correia@nrc.gov](mailto:Richard.Correia@nrc.gov)>

**Cc:** Holahan, Gary <[Gary.Holahan@nrc.gov](mailto:Gary.Holahan@nrc.gov)>; Keene, Todd <[Todd.Keene@nrc.gov](mailto:Todd.Keene@nrc.gov)>

**Subject:** FYI: backfit appeal documents signed

Good morning, all!

This morning, Vic signed the three documents associated with the Byron/Braidwood backfit appeal. They are being processed now, and we expect that they (along with the panel documents referenced within) will be made publicly available in ADAMS later today. Please let me know if you have any questions. Thanks!

- **Letter responding to Exelon:** [ML16243A067](#)
- **Letter responding to NEI:** [ML16246A150](#)
- **Memo to NRR:** [ML16246A247](#)

All 3 documents are publicly available in ADAMS

--

**Theresa Valentine Clark**

Executive Technical Assistant (Reactors)

U.S. Nuclear Regulatory Commission

[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov) | 301-415-4048 | O-16E22

**From:** Whitman, Jennifer  
**Sent:** 15 Sep 2016 17:22:41 +0000  
**To:** McGinty, Tim; Taylor, Robert; Oesterle, Eric; Anderson, Shaun  
**Cc:** Hickey, James  
**Subject:** RE: backfit appeal documents signed

That sounds like a good path forward.

I will let Sam know that the EDO has issued his decision on the appeal once the documents are publically available.

Jen

---

**From:** McGinty, Tim  
**Sent:** Thursday, September 15, 2016 12:30 PM  
**To:** Taylor, Robert <Robert.Taylor@nrc.gov>; Whitman, Jennifer <Jennifer.Whitman@nrc.gov>; Oesterle, Eric <Eric.Oesterle@nrc.gov>; Anderson, Shaun <Shaun.Anderson@nrc.gov>  
**Cc:** Hickey, James <James.Hickey@nrc.gov>  
**Subject:** RE: backfit appeal documents signed

I think Jennifer should notify Sam. We should endeavor to discuss with interested stakeholders, whoever they may be, at the lowest level possible as a rule of thumb. It tends to preserve our ability to respond to any of a variety of situations that could find ourselves in at the lowest level, which I think is in the interest of efficiency and effectiveness without sacrificing transparency in any way. Tim

---

**From:** Taylor, Robert  
**Sent:** Thursday, September 15, 2016 11:33 AM  
**To:** Whitman, Jennifer <Jennifer.Whitman@nrc.gov>; McGinty, Tim <Tim.McGinty@nrc.gov>; Oesterle, Eric <Eric.Oesterle@nrc.gov>; Anderson, Shaun <Shaun.Anderson@nrc.gov>  
**Cc:** Hickey, James <James.Hickey@nrc.gov>  
**Subject:** RE: backfit appeal documents signed

What is your recommendation?

---

**From:** Whitman, Jennifer  
**Sent:** Thursday, September 15, 2016 10:20 AM  
**To:** McGinty, Tim <Tim.McGinty@nrc.gov>; Oesterle, Eric <Eric.Oesterle@nrc.gov>; Anderson, Shaun <Shaun.Anderson@nrc.gov>  
**Cc:** Taylor, Robert <Robert.Taylor@nrc.gov>; Hickey, James <James.Hickey@nrc.gov>  
**Subject:** RE: backfit appeal documents signed

Once they are made public, I know Sam will be interested. Tim/Rob do you want to notify him or should I?

---

**From:** McGinty, Tim  
**Sent:** Thursday, September 15, 2016 10:01 AM  
**To:** Oesterle, Eric <Eric.Oesterle@nrc.gov>; Whitman, Jennifer <Jennifer.Whitman@nrc.gov>; Anderson, Shaun <Shaun.Anderson@nrc.gov>

**Cc:** Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>; Hickey, James <[James.Hickey@nrc.gov](mailto:James.Hickey@nrc.gov)>  
**Subject:** FW: backfit appeal documents signed

FYI

---

**From:** Clark, Theresa  
**Sent:** Thursday, September 15, 2016 9:59 AM  
**To:** Dean, Bill <[Bill.Dean@nrc.gov](mailto:Bill.Dean@nrc.gov)>; Evans, Michele <[Michele.Evans@nrc.gov](mailto:Michele.Evans@nrc.gov)>; McDermott, Brian <[Brian.McDermott@nrc.gov](mailto:Brian.McDermott@nrc.gov)>; McGinty, Tim <[Tim.McGinty@nrc.gov](mailto:Tim.McGinty@nrc.gov)>; Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Correia, Richard <[Richard.Correia@nrc.gov](mailto:Richard.Correia@nrc.gov)>  
**Cc:** Holahan, Gary <[Gary.Holahan@nrc.gov](mailto:Gary.Holahan@nrc.gov)>; Keene, Todd <[Todd.Keene@nrc.gov](mailto:Todd.Keene@nrc.gov)>  
**Subject:** FYI: backfit appeal documents signed

Good morning, all!

This morning, Vic signed the three documents associated with the Byron/Braidwood backfit appeal. They are being processed now, and we expect that they (along with the panel documents referenced within) will be made publicly available in ADAMS later today. Please let me know if you have any questions. Thanks!

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- **Letter responding to NEI:** [ML16246A150](#)
- **Memo to NRR:** [ML16246A247](#)

All three documents are publicly available in ADAMS
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--

**Theresa Valentine Clark**  
Executive Technical Assistant (Reactors)  
U.S. Nuclear Regulatory Commission  
[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov) | 301-415-4048 | O-16E22

**From:** Whitman, Jennifer  
**Sent:** 2 Aug 2016 16:58:13 +0000  
**To:** Whitman, Jennifer;Billerbeck, John;Mcginty, Tim;Taylor, Robert;Oesterle, Eric;Garmoe, Alex;Orf, Tracy;Benner, Eric;Alley, David;Lubinski, John;Stuchell, Sheldon;Gavrilas, Mirela;Lund, Louise  
**Cc:** DSSCAL Resource;DORLCAL Resource;Kaplan, Michele;Simpson, JoAnn;Blaney, William  
**Bcc:** HQ-OWFN-10B06-12p  
**Subject:** : RE: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~QUO - Pre-decisional - Internal NPC Use Only~~

UPDATED - NEW TIME 9 AM (since the ET Sig topic was cancelled)

Jen



**From:** Alley, David  
**Sent:** 15 Sep 2016 11:41:00 -0400  
**To:** Whitman, Jennifer  
**Subject:** RE: Panel Findings

Thanks  
Dave

---

**From:** Whitman, Jennifer  
**Sent:** Thursday, September 15, 2016 11:40 AM  
**To:** Alley, David  
**Subject:** Panel Findings

[Backfit Appeal Review Panel Findings \(Byron and Braidwood\)](#)

That is a link to the package with the memo and the enclosure and some other related documents.

**ADAMS Accession Nos.: Package ML16236A198**  
**Memorandum ML16236A202; Enclosure ML16236A208**

*Jennifer Whitman*

Reactor Systems Engineer  
NRR/DSS/SRXB  
Office: O10 " D15  
Phone: (301) 415-3253

This package, and documents, are publicly available in ADAMS
--

**From:** Whitman, Jennifer  
**Sent:** 26 Sep 2016 17:05:40 +0000  
**To:** sm0973@gmail.com  
**Subject:** RE: Re: Backfit Appeal Decision

The position in the SRP remains the current agency position. NRR has been tasked with proposing a path to address the PORV/PSV water qualification issue. There will be more to come on this topic.

**From:** Samuel Miranda [mailto:sm0973@gmail.com]  
**Sent:** Monday, September 26, 2016 1:02 PM  
**To:** Whitman, Jennifer <Jennifer.Whitman@nrc.gov>  
**Subject:** [External\_Sender] Re: Backfit Appeal Decision

Thanks. All is not well. So, are you now going to assume unqualified PORVs will reset after having relieved water?

On Sep 26, 2016 9:39 AM, "Whitman, Jennifer" <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)> wrote:

Hey Sam,

Just wanted to let you know that the [EDO's decision](#) on the backfit appeal is now available in ADAMS.

Hope all is well!

*Jennifer Whitman*

Reactor Systems Engineer  
NRR/DSS/SRXB  
Office: O10 – D15  
Phone: [\(301\) 415-3253](tel:(301)415-3253)

From: [Alley, David](#)  
To: [Garmoe, Alex](#); [Oesterle, Eric](#)  
Cc: [Whitman, Jennifer](#); [Billerbeck, John](#); [Farnan, Michael](#); [Stuchell, Sheldon](#)  
Subject: RE: ACTION: Concurrence Requested  
Date: Wednesday, November 30, 2016 6:10:58 PM

---

I concur

Dave

---

**From:** Garmoe, Alex  
**Sent:** Wednesday, November 30, 2016 2:56 PM  
**To:** Oesterle, Eric <Eric.Oesterle@nrc.gov>; Alley, David <David.Alley@nrc.gov>  
**Cc:** Whitman, Jennifer <Jennifer.Whitman@nrc.gov>; Billerbeck, John <John.Billerbeck@nrc.gov>; Farnan, Michael <Michael.Farnan@nrc.gov>; Stuchell, Sheldon <Sheldon.Stuchell@nrc.gov>  
**Subject:** ACTION: Concurrence Requested

Dave and Eric,

Your electronic concurrences are requested on the attached and linked memorandum from Bill Dean responding to Vic McCree's 9/15 memorandum (attached for background info). Please provide comments and indicate your concurrence in a reply to this e-mail by **Monday, December 5**. If you don't believe this date can be met please let me know ASAP so we can discuss alternate arrangements.

ADAMS: [ML16334A181](#)

Thank you,



**Alexander D. Garmoe**  
Senior Project Manager  
Generic Communications Branch (PGCB)  
Division of Policy and Rulemaking (DPR)  
Office of Nuclear Reactor Regulation (NRR)  
Alex.Garmoe@nrc.gov | 301-415-3814

**From:** [Farnan, Michael](#)  
**To:** [Whitman, Jennifer](#); [Keene, Todd](#); [Wolfgang, Robert](#)  
**Subject:** RE: B&B PSV Technical Evaluation and RIS 2005-29 Disposition - Call-in 888-790-1732 Passcode:  
**Date:** Wednesday, October 26, 2016 8:30:45 AM

(b)  
(6)

I do not need anything.

Michael F. Farnan

Mechanical Engineer

U.S. Nuclear Regulatory Commission

301-415-1486

---

**From:** Whitman, Jennifer

**Sent:** Tuesday, October 25, 2016 5:25 PM

**To:** Keene, Todd <Todd.Keene@nrc.gov>; Farnan, Michael <Michael.Farnan@nrc.gov>;  
Wolfgang, Robert <Robert.Wolfgang@nrc.gov>

**Subject:** RE: B&B PSV Technical Evaluation and RIS 2005-29 Disposition - Call-in 888-790-1732  
Passcode: (b)(6)

Michael/Robert, Just checking in to see if you guys need anything from me.

Todd, what are you expecting me to bring to this meeting?

Thanks,

Jen

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

**From:** Keene, Todd

**Sent:** Thursday, October 20, 2016 4:10 PM

**To:** Keene, Todd; Whitman, Jennifer; Oesterle, Eric; Alley, David; Farnan, Michael; Wolfgang,  
Robert; Stuchell, Sheldon

**Subject:** B&B PSV Technical Evaluation and RIS 2005-29 Disposition - Call-in 888-790-1732  
Passcode: (b)(6)

**When:** Wednesday, October 26, 2016 11:00 AM-12:00 PM (UTC-05:00) Eastern Time (US &  
Canada).

**Where:** HQ-OWFN-12B06-12p

Call-in: 888-790-1732

Passcode: (b)(6)

Follow up to the Oct 6 alignment meeting as noted in the attached email.

<< Message: INFO: EDO Tasking - Technical Evaluation and RIS 2005-29 Disposition >>

DE / DSS Staff meeting to discuss DE findings

1. Identify the scope of the issue
2. Propose a product (generic communication; reg guide; etc) to address the underlying technical issue regarding the PSV.
3. Determine path forward concerning RIS 2005-29 and the draft revision.
4. Generate timeline for proposed plan

**From:** [Whitman, Jennifer](#)  
**To:** [Billerbeck, John](#)  
**Subject:** RE: Backfit Documents  
**Date:** Tuesday, July 19, 2016 1:34:51 PM  
**Attachments:** [image001.png](#)

---

Let me know if there is anything else I can help you find.

Jen

---

**From:** Billerbeck, John  
**Sent:** Tuesday, July 19, 2016 1:34 PM  
**To:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>  
**Subject:** RE: Backfit Documents

Thanks Jen

John Billerbeck  
Mechanical Engineer



U.S. Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation  
11555 Rockville Pike, OWFN-09D3  
Rockville MD 20852  
Telephone: 301.415.1179  
E-mail: [john.billerbeck@nrc.gov](mailto:john.billerbeck@nrc.gov)

---

**From:** Whitman, Jennifer  
**Sent:** Tuesday, July 19, 2016 1:24 PM  
**To:** Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>  
**Cc:** Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; McGinty, Tim <[Tim.McGinty@nrc.gov](mailto:Tim.McGinty@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>  
**Subject:** Backfit Documents

John,

I have attached the original backfit that SRXB wrote because I think it does a better job walking through the technical issues, specifically the RAI responses to the 2001 power uprate and contains an extensive reference list at the end. I included the ones we talked about during the meeting below. I also attached the e-mail I sent to Tim and Rob yesterday with the RAIs that we proposed to send on the most recent MUR where it was decided the RAI was out of scope. Lastly, I have included the [link for Sam's non-concurrence on that SE](#).

NSAL-93-013, Inadvertent ECCS Actuation at Power, G.G. Ament and K.J. Vavrek, Westinghouse ESBU, June 30, 1993, and NSAL-93-013, Supplement 1, J.S. Galembush, Westinghouse ESBU, October 28, 1994 (ADAMS Accession No. [ML052930330](#))

NSAL-93-013 is included in ML16342D412 (p37 of the PDF).

NRC RIS 2005-029, Anticipated Transients that Could Develop into More Serious Events, dated December 14, 2005 (ADAMS Accession No. [ML051890212](#)).

The remaining 3 records are all publicly available in ADAMS under the specified ML accession numbers.

Letter no. RS-01-110 from Exelon to USNRC, Response to request for Additional Information Regarding the License Amendment Request to Permit Up-rated Power Operations at Byron and Braidwood Stations, January 31, 2001 (ADAMS Accession No. [ML010330145](#))

Issuance of Amendments: Increase in Reactor Power, Byron Station Units 1 and 2, and Braidwood Station, Units 1 and 2, May 4, 2001 (ADAMS Accession No. [ML011420274](#))

*Jennifer Whitman*

Acting Technical Assisstant  
NRR/DSS  
Office: O10 – H22  
Phone: (301) 415-3253

**From:** [Alley, David](#)  
**To:** [Billerbeck, John](#)  
**Subject:** RE: Backfit one pager  
**Date:** Wednesday, August 31, 2016 9:52:46 AM

---

In my office now. Any time is fine.

Dave

---

**From:** Billerbeck, John  
**Sent:** Wednesday, August 31, 2016 8:59 AM  
**To:** Alley, David <David.Alley@nrc.gov>  
**Subject:** RE: Backfit one pager

OK. I'll call you at 10:10?

---

**From:** Alley, David  
**Sent:** Wednesday, August 31, 2016 8:39 AM  
**To:** Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>  
**Subject:** Backfit one pager

John,  
Lubinski just grabbed me. If we want to add anything to the one pager for the backfit, it needs to be done this morning. I will be in a meeting from about 9-10, but we need to do something (if we are going to do anything at all) shortly after the meeting

Dave

David Alley PhD.  
Chief, Component Performance NDE and Testing Branch  
US Nuclear Regulatory Commission  
11555 Rockville Pike Rockville MD 20852  
301-415-2178



**From:** [Billerbeck, John](#)  
**To:** [Alley, David](#)  
**Subject:** RE: Backfit one pager  
**Date:** Wednesday, August 31, 2016 10:30:27 AM  
**Attachments:** [NRR Perspectives OEDO Backfit Panel Findings IMW - EPNB comments.docx](#)

---

See new 4<sup>th</sup> bullet.

---

**From:** Alley, David  
**Sent:** Wednesday, August 31, 2016 8:39 AM  
**To:** Billerbeck, John <John.Billerbeck@nrc.gov>  
**Subject:** Backfit one pager

John,  
Lubinski just grabbed me. If we want to add anything to the one pager for the backfit, it needs to be done this morning. I will be in a meeting from about 9-10, but we need to do something (if we are going to do anything at all) shortly after the meeting

Dave

David Alley PhD.  
Chief, Component Performance NDE and Testing Branch  
US Nuclear Regulatory Commission  
11555 Rockville Pike Rockville MD 20852  
301-415-2178

## NRR Perspectives OEDO Backfit Panel Findings

- NRR appreciates the panel's efforts. However, NRR believes that the panel's perspectives do not provide sufficient basis to overturn the backfit.
- The panel's position is reliant on its interpretation of the 1977 Information SECY. The panel has provided select quotes from that SECY that it believes supports its position. NRR believes that when the entire SECY is reviewed it becomes clear that the SECY was simply documenting current practices in 1977 and does not provide a "known and established standard." The staff contends that if the 1977 SECY had been intended to provide the "known and established standard" it would have been included in subsequent updates to regulations, regulatory guides, and SRPs over the following nearly 40 years. It has not.
- In numerous places the panel quotes documents that it interprets as describing the treatment of check valves as analogous to PSVs. The panel did not find any definitive documentation that demonstrates that the agency concluded that PSVs are analogous to check valves and, as such, should be considered passive components. This appears to be the panel's judgement, not an NRC position. NRR disagrees with the panel's interpretation and has historically treated PSVs as active components, including designating them as such during license renewal. PSVs are designed to perform a specific RCS overpressure protection safety function critical to protecting one of the key defense-in-depth barriers to protect public health and safety from the release of radioactive materials. The staff believes the panel's comparison is inappropriate and establishes a very concerning precedent.
- 10 CFR 50.55a requires nuclear power plants to be initially designed and constructed IAW ASME Boiler and Pressure Vessel Code (BPVC), Section III and to be tested throughout their service life IAW ASME OM Code. These codes comprise the qualification standards for ASME Class 1 safety valves such as the pressurizer PSVs which licensees are required to comply with unless relief has been granted and alternatives have been authorized by the staff IAW 10 CFR 50.55a. We are aware of no such relief or alternatives for Byron and Braidwood for the qualification of the PSVs to pass water.
- On page 13, the panel acknowledges the licensing basis for Byron and Braidwood characterizes the PSVs and PORVs as active components. However, the panel, given its reliance on treating PSVs akin to check valves, establishes a new and different position in its own summary when it determines these valves should be treated as passive components at Byron and Braidwood for the purposes of considering the single failure criterion.
- The panel asserts in its summary that the valves in question where water qualified due to the licensee's reliance on them to pass water during feedline break events. The panel does not appear to acknowledge that feedline breaks are Condition IV events, similar to LOCAs, which are never expected to occur in the lifetime of the facilities and therefore, given their lower probability of occurrence, are permitted to have more significant consequences. The EPRI testing demonstrated acceptable performance under conditions anticipated during these Condition IV events (higher temperature fluid ~ 650°F), while the EPRI test at not the more likely Condition II inadvertent mass addition event conditions (lower temperature fluid ~550 °F) was terminated early due to valve chatter on opening. The summary of the EPRI testing indicated that for subcooled water conditions valve chatter and resultant valve damage was generally observed.

**Comment [WJ]:** There was some EPRI testing done at both conditions, but the test at the lower temperatures for the BB type valve experienced significant enough valve chatter that the test was ended early. The real issue/difference between the feedline break and the high pressure injection is the expected temperature of the fluid that passes through the valve.

- NRR agrees with the panel that risk insights are important considerations. However, consistent with RG 1.174, risk insights must include consideration of defense-in-depth and safety margins. If a PSV were to stick open or significantly leak at Bryon and Braidwood during a licensing basis Condition II event, which is anticipated to occur on an annual frequency, the licensee has not demonstrated adequate defense-in-depth. NRR is open to considering risk-informed licensing basis changes, or potential plant modifications, that appropriately considers all 5 elements of RG 1.174.

**From:** [Billerbeck, John](#)  
**To:** [Whitman, Jennifer](#)  
**Subject:** RE: Backfit Panel Response  
**Date:** Wednesday, August 10, 2016 9:41:19 AM  
**Attachments:** [Backfit Panel Response - Rev 3 - billerbeck comments.docx](#)

---

Right back at ya

---

**From:** Whitman, Jennifer  
**Sent:** Wednesday, August 10, 2016 12:27 AM  
**To:** Billerbeck, John <John.Billerbeck@nrc.gov>  
**Subject:** Backfit Panel Response

John, there are two places in the attached where I need your help to finish.

Thanks,

Jen

**Staff Response to  
Exelon Backfit Appeal Panel Preliminary Findings**

On August 2, 2016, the NRR staff received a three-page summary of the preliminary findings of the OEDO backfit appeal panel. The staff recognizes that the OEDO panel has performed a much more thorough review than can be documented within three pages. As such, the staff's review and comments as provided below, reflects its considerations of this short summary. The staff is willing to meet with the panel again to discuss the concerns and positions documented in this response.

(b)(5)



Page 379 of 582

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act

Page 380 of 582

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act

Page 381 of 582

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act



Page 382 of 582

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act

**From:** [Alley, David](#)  
**To:** [Billerbeck, John](#)  
**Subject:** RE: Braidwood/Byron - Appeal of Imposition of Backfit Regarding Compliance with 10 CFR 50.34(b), GDC 15, GDC 21, GDC 29, and Licensing Basis  
**Date:** Wednesday, December 09, 2015 11:34:39 AM

---

Thanks for the assessment.

Dave

---

**From:** Billerbeck, John  
**Sent:** Wednesday, December 09, 2015 9:51 AM  
**To:** Alley, David <David.Alley@nrc.gov>  
**Subject:** FW: Braidwood/Byron - Appeal of Imposition of Backfit Regarding Compliance with 10 CFR 50.34(b), GDC 15, GDC 21, GDC 29, and Licensing Basis

Dave,

I know you saw this already. It looks to me like the licensee doesn't dispute the technical argument that we made (i.e., that if you want to credit the PSVs with water relief, then you have to demonstrate in the ASME design and test programs that they will actually work with water). But rather, their dispute seems to focus on an alleged NRC procedural error (i.e., no backfit analysis performed / misuse of the compliance exemption). I guess we're in standby until management decides how to proceed.

John

---

**From:** Wiebe, Joel  
**Sent:** Wednesday, December 09, 2015 7:27 AM  
**To:** Poole, Justin; Beaulieu, David; Schwarz, Sherry; Wertz, Trent; Evans, Michele; Lubinski, John; McGinty, Tim; Jackson, Christopher; Whitman, Jennifer; Alley, David; Billerbeck, John; Kokajko, Lawrence; Mohseni, Aby; Stuchell, Sheldon; Jessie, Janelle; Krohn, Paul; Boland, Anne; Taylor, Robert; Wilson, George; Duncan, Eric; Benjamin, Jamie; Betancourt, Diana; McGhee, James; Draper, Jason  
**Subject:** Braidwood/Byron - Appeal of Imposition of Backfit Regarding Compliance with 10 CFR 50.34(b), GDC 15, GDC 21, GDC 29, and Licensing Basis

**From:** [Garmoe, Alex](#)  
**To:** [Oesterle, Eric](#)  
**Cc:** [Whitman, Jennifer](#); [Alley, David](#); [Keene, Todd](#); [Billerbeck, John](#); [Farnan, Michael](#); [Wolfgang, Robert](#)  
**Subject:** RE: Definition of Underlying Technical Issue for 120-day Plan  
**Date:** Monday, November 14, 2016 9:34:57 AM  
**Attachments:** [image001.png](#)

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Thanks Eric. I'll take this info and incorporate it into a memo from Bill Dean to Vic McCree, subject to any changes we discuss during the Wednesday meeting.

---

**From:** Oesterle, Eric  
**Sent:** Monday, November 14, 2016 7:36 AM  
**To:** Garmoe, Alex <Alex.Garmoe@nrc.gov>  
**Cc:** Whitman, Jennifer <Jennifer.Whitman@nrc.gov>; Alley, David <David.Alley@nrc.gov>; Keene, Todd <Todd.Keene@nrc.gov>; Billerbeck, John <John.Billerbeck@nrc.gov>; Farnan, Michael <Michael.Farnan@nrc.gov>; Wolfgang, Robert <Robert.Wolfgang@nrc.gov>  
**Subject:** Definition of Underlying Technical Issue for 120-day Plan  
**Importance:** High

Alex,

Attached please find my write-up on attempting to define the underlying technical issue for the 120-day plan to respond to the EDO on the Byron/Braidwood backfit appeal decision. It focuses primarily on the Westinghouse NSAL so I request that others have a look at this write-up and offer up and comments or edits. Thanks!

*Eric R. Oesterle*

Reactor Systems Branch Chief  
NRR/DSS/SRXB  
301-415-1014



**From:** [Garmoe, Alex](#)  
**To:** [Oesterle, Eric](#); [Alley, David](#)  
**Cc:** [Whitman, Jennifer](#); [Keene, Todd](#); [Billerbeck, John](#); [Farnan, Michael](#); [Wolfgang, Robert](#)  
**Subject:** RE: Definition of Underlying Technical Issue for 120-day Plan  
**Date:** Tuesday, November 15, 2016 8:30:02 AM  
**Attachments:** [image002.png](#)

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I agree – we'll have a much better understanding of where we are tomorrow morning. Having a division-level briefing this week was a target but was never definitive or scheduled. Framing the technical issue took a bit longer than initially anticipated so that set everything back a bit. I suggest we target Monday or Tuesday of next week for a division level briefing, which would allow us to receive and incorporate comments in advance of briefing the NRR front office in early December.

---

**From:** Oesterle, Eric  
**Sent:** Tuesday, November 15, 2016 8:14 AM  
**To:** Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>  
**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Keene, Todd <[Todd.Keene@nrc.gov](mailto:Todd.Keene@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Farnan, Michael <[Michael.Farnan@nrc.gov](mailto:Michael.Farnan@nrc.gov)>; Wolfgang, Robert <[Robert.Wolfgang@nrc.gov](mailto:Robert.Wolfgang@nrc.gov)>  
**Subject:** RE: Definition of Underlying Technical Issue for 120-day Plan

I think we should nail down the briefing date during the discussion tomorrow.  
Eric

---

**From:** Garmoe, Alex  
**Sent:** Tuesday, November 15, 2016 8:13 AM  
**To:** Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>  
**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Keene, Todd <[Todd.Keene@nrc.gov](mailto:Todd.Keene@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Farnan, Michael <[Michael.Farnan@nrc.gov](mailto:Michael.Farnan@nrc.gov)>; Wolfgang, Robert <[Robert.Wolfgang@nrc.gov](mailto:Robert.Wolfgang@nrc.gov)>  
**Subject:** RE: Definition of Underlying Technical Issue for 120-day Plan

Dave,

Good question about the division level briefing. I am not sure if there was supposed to definitively be a division level briefing this week or if this was a ballpark target figuring we'd have a plan to present by now – I'll try to get more info. I don't think we have the plan nailed down yet to the extent we would want for a division level briefing. Perhaps after the Wednesday morning discussion we will. At this point I think we could support early next week or the week after Thanksgiving. Any other thoughts?

Alex

---

**From:** Alley, David  
**Sent:** Monday, November 14, 2016 8:34 PM  
**To:** Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>

**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Keene, Todd <[Todd.Keene@nrc.gov](mailto:Todd.Keene@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Farnan, Michael <[Michael.Farnan@nrc.gov](mailto:Michael.Farnan@nrc.gov)>; Wolfgang, Robert <[Robert.Wolfgang@nrc.gov](mailto:Robert.Wolfgang@nrc.gov)>

**Subject:** RE: Definition of Underlying Technical Issue for 120-day Plan

Eric, Alex,

First off, MJ mentioned a division level briefing on this subject and thought it was to be this week. I don't see anything scheduled yet. Did I miss something?

Now to the major issue at hand

In not nearly so well thought out language as you propose, may I propose that our 120 day plan also include

GIVEN:

1. The backfit appeal found that a well known and established NRC position concerning the method of qualification of PSVs does not exist.
2. The backfit appeal establishes that the PSVs installed at Byron and Braidwood are needed for water discharge, i.e., it is part of the normally planned for operation of the plant
3. The backfit appeal establishes that the PSVs installed at Byron and Braidwood are qualified for water discharge.

REQUIRED:

The ultimate resolution of technical and regulatory issues must include:

1. Determination of the safety significance of the Byron Braidwood PSVs
2. Determination of ASME Code compliance with testing requirements for PSVs at Byron and Braidwood given that the backfit appeal established that they are qualified to pass water
3. Assess the significance of these issues to the fleet
4. Determination of technical reasonableness for design and operation of PSVs for both steam and water
5. Determination of whether new licenses should be treated differently than existing licenses with respect to this issue
6. Depending on findings above, engage licensee/region with respect to actions to resolve both technical and regulatory issues
7. Issue one or more RISs to clarify NRC position on existing licensees and new licenses (including renewed licenses)

STEPS TO BE EMPLOYED:

To accomplish Requirement 1:

- a. Revisit scenario in question
- b. Review General Design Criteria and other regulations for applicability
- c. Review available data on valve performance to determine technical significance of passing water
- d. Assess scenario with respect to regulatory and technical information
- e. Draft position paper

Time required to implement \*\* months

To accomplish Requirement 2:

- a. Review ASME OM code to determine periodic test requirements for PSVs qualified

and required to pass water

- b. Determine whether licensees have met those requirements (this may require communications with the licensee)
  - c. Draft final position and recommendation concerning this issue
- Time required to implement \*\* months

To accomplish Requirement 3:

- a. Determine appropriate means to determine extent of this issue at other PWRs , i.e., number of plants which require PSVs to pass water and steam. Potential paths include: review FSARs in house; request assistance from residents; generic letter.
  - b. Obtain necessary information
  - c. Determine significance
- Time required to implement \*\* months

To accomplish Requirement 4:

- a. Survey valve manufacturers concerning the technical feasibility of long term operation of PSVs with water and steam.
  - b. Develop position regarding this issue for new licenses
  - c. Draft position paper
- Time required to implement \*\* months

I am going to quit here for the time being. Given what I have written for steps to accomplish 4, I am not sure whether I got 4 and 5 backwards or not. I think you can get the drift of where I am headed and can start to throw stones as necessary. Once we get past number 5, the last couple may be easy. Not sure whether we need more detail than I have provided (probably do) but it is after 8:30 and I would like to be done for tonight.

Dave

---

**From:** Oesterle, Eric

**Sent:** Monday, November 14, 2016 7:36 AM

**To:** Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>

**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Keene, Todd <[Todd.Keene@nrc.gov](mailto:Todd.Keene@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Farnan, Michael <[Michael.Farnan@nrc.gov](mailto:Michael.Farnan@nrc.gov)>; Wolfgang, Robert <[Robert.Wolfgang@nrc.gov](mailto:Robert.Wolfgang@nrc.gov)>

**Subject:** Definition of Underlying Technical Issue for 120-day Plan

**Importance:** High

Alex,

Attached please find my write-up on attempting to define the underlying technical issue for the 120-day plan to respond to the EDO on the Byron/Braidwood backfit appeal decision. It focuses primarily on the Westinghouse NSAL so I request that others have a look at this write-up and offer up and comments or edits. Thanks!

*Eric R. Oesterle*

Reactor Systems Branch Chief

NRR/DSS/SRXB  
301-415-1014



**From:** [Garmoe, Alex](#)  
**To:** [Alley, David](#); [Stuchell, Sheldon](#); [Oesterle, Eric](#); [Whitman, Jennifer](#); [Billerbeck, John](#); [Farnan, Michael](#)  
**Subject:** RE: Draft Response to EDO Re: Braidwood/Byron Backfit Overturn  
**Date:** Monday, November 28, 2016 5:23:51 PM  
**Attachments:** [Response Memo to EDO Rev 4 Option 2.docx](#)  
[Response Memo to EDO Rev 4 Internal Detailed Plan Option 2.docx](#)

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Folks,

In the event the tech staff agrees that Tony's suggestion should be included in our plan, I have drafted an optional update to the response memo to the EDO. Additional language to incorporate Tony's concern is included in the attached redline strikeout files. Your thoughts on including Tony's comments and the additional memo language are welcomed, ideally by mid-day Tuesday to support a Wednesday morning discussion with DE and DSS management.

Thanks,  
Alex

---

**From:** Alley, David  
**Sent:** Monday, November 28, 2016 2:34 PM  
**To:** Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>; Stuchell, Sheldon <[Sheldon.Stuchell@nrc.gov](mailto:Sheldon.Stuchell@nrc.gov)>; Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Farnan, Michael <[Michael.Farnan@nrc.gov](mailto:Michael.Farnan@nrc.gov)>  
**Subject:** RE: Draft Response to EDO Re: Braidwood/Byron Backfit Overturn

Alex,  
I have included John Billerbeck and Mike Farnan on this just to make sure I am not misspeaking.

EPNB's involvement in this is predominantly limited to the safety valves, including their function, qualification and testing. My goal is to assess the narrow scope associated with the valves. While I have no objection to assessing the broader scope proposed by Tony, I don't believe my branch organizationally has anything to add to that broader discussion. That is not to say we have no personal interest in the issue. Irrespective of the manner in which we choose to proceed, we will remain fully engaged especially with respect to valve testing requirements

Dave

---

**From:** Garmoe, Alex  
**Sent:** Monday, November 28, 2016 1:45 PM  
**To:** Stuchell, Sheldon <[Sheldon.Stuchell@nrc.gov](mailto:Sheldon.Stuchell@nrc.gov)>; Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>  
**Subject:** FW: Draft Response to EDO Re: Braidwood/Byron Backfit Overturn

Good afternoon,

Please see the below comments from Tony Gody about the draft response to the EDO. To



summarize, he is concerned that we may be taking too narrow of a view by focusing only on PSV water qualification and not more broadly on industry actions in response to RCS overfill. Is the intention, despite the current narrow language in the response memo, to consider this more broad perspective in our re-assessment of the issue? If not, should we do so? I'll consider updating the draft response memo once we are aligned on Tony's comments.

Thanks,  
Alex

---

**From:** Gody, Tony  
**Sent:** Monday, November 28, 2016 12:47 PM  
**To:** Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>  
**Subject:** RE: Draft Response to EDO Re: Braidwood/Byron Backfit Overturn

Alex,

My thoughts. If the proposed staff actions are limited to the milestones for addressing the underlying technical issue in NSAL-93-013 attached to the draft memorandum to Victor McCree they appear too narrow. If the staff focuses on just their technical concern (namely PSV qualification to pass water) then the broader question about whether the industry methodology to address an RCS overfill event is acceptable will not be answered. In my opinion, we should not narrowly focus on just one technical aspect of this event. By doing so, we lose an opportunity to address, for once, the questions about whether the industry has developed an acceptable approach to prevent what caused the Three Mile Island event.

The memo from me dated March 21, 2016, shows that the industry has addressed the RCS overfill event in many different ways, some of which may be acceptable, nearly all of which were not challenged by us. After my very quick review of the 10 FSARs, it became apparent to me that we (the NRC) have not developed a unified approach to addressing Generic Safety Issue 70. This combined with the staff position that the PORV and its' associated block valve be designated safety-related (which is a change from our conclusion in NUREG-1316) if it is relied upon to address the RCS overfill event has resulted in an increasing number of licensee's relying on their PSVs to address the event.

Of course, if I am reading the staff's proposal to limit its efforts to PSV qualification to pass water wrong, then ..... never mind.

Thanks for giving me an opportunity to comment.

Tony

---

**From:** Garmoe, Alex  
**Sent:** Wednesday, November 23, 2016 11:57 AM  
**To:** Gody, Tony <[Tony.Gody@nrc.gov](mailto:Tony.Gody@nrc.gov)>  
**Subject:** Draft Response to EDO Re: Braidwood/Byron Backfit Overturn

Tony,

I hope things have been going well for you down in Atlanta. As you likely recall, the EDO accepted an appeal panel recommendation to overturn the Braidwood/Byron compliance backfit after Exelon submitted a second-level appeal. On September 15, the EDO sent a memo to Bill Dean explaining his decision and requesting to be informed within 120 days of our plan to address the following items:

- Assess the treatment of the underlying technical issue described in the 1993 Westinghouse Nuclear Safety Advisory Letter (NSAL-93-013) on PSV performance after water discharge at pressurized-water reactors.
- The positions included in RIS 2005-29, as well as its proposed Revision 1, should be (re)assessed through the appropriate generic process to ensure they receive appropriate backfit consideration.

I have been working with technical staff from DSS and DE to develop a response to the memo. Since the draft response directs staff to take into account the information provided in your memo to the NRR backfit review panel, I am including our current draft for your review and comment. If possible, your comments would be appreciated by mid-day Tuesday 11/29.

Thank you and Happy Thanksgiving!



**Alexander D. Garmoe**

Senior Project Manager

Generic Communications Branch (PGCB)

Division of Policy and Rulemaking (DPR)

Office of Nuclear Reactor Regulation (NRR)

Alex.Garmoe@nrc.gov | 301-415-3814

Date

MEMORANDUM TO: Victor M. McCree  
Executive Director for Operations

FROM: William M. Dean, Director  
Office of Nuclear Reactor Regulation

SUBJECT: RESPONSE TO REQUEST FOR A PLAN TO ASSESS THE  
TREATMENT OF THE UNDERLYING TECHNICAL ISSUE IN  
NSAL-93-013 AND THE POSITIONS IN RIS 2005-29 AND  
PROPOSED REVISION 1.

In a memorandum dated September 15, 2016 (Agencywide Documents Access and Management System (ADAMS) ML16246A247), you communicated the results of your review of a backfit appeal by Exelon Generation Co., LLC. The backfit was initially imposed by the staff, using the compliance exception to the backfit rule, on October 9, 2015 (ADAMS ML14225A871). After undergoing the backfit appeal process with the Office of Nuclear Reactor Regulation (NRR), in which NRR upheld imposition of the backfit, Exelon appealed the NRR decision to you in a letter dated June 2, 2016 (ADAMS ML16154A254). The September 15 memorandum referred to the report of a Backfit Appeal Review Panel, which you had designated to review the June 2 appeal.

As noted in the September 15 memorandum, the Backfit Appeal Review Panel determined that use of the ASME BPV code to demonstrate qualification of PSVs for water relief, the presumption of a PSV failing to reseal following water relief, and application of the single failure criterion were not known and established staff positions at the time the licensing actions in question were issued. In light of this determination, the memorandum included two issues identified by the Backfit Appeal Review Panel as warranting further NRC review. As stated in the memorandum:

The Panel's report also identifies two issues that warrant further NRC consideration. The report reveals the need to assess the treatment of the underlying technical issue described in the 1993 Westinghouse Nuclear Safety Advisory Letter (NSAL-93-013) on PSV performance after water discharge at pressurized-water reactors. In addition, given the decision communicated herein, the positions included in RIS 2005-29, as well as its proposed Revision 1, should be (re)assessed through the appropriate generic process to ensure they receive appropriate backfit consideration. You are requested to inform me within 120 days of your plan to respond to these issues.

Staff from NRR have reviewed the September 15 memorandum and supporting documentation. As requested, a plan has been developed, as described herein and in the Enclosure to this memorandum, to assess the underlying technical issue described in Westinghouse NSAL-93-013 and the positions included in RIS 2005-029 and the proposed revision.

The underlying technical issue associated with NSAL-93-013 (Sheet 4 of 5) for the inadvertent operation of ECCS event (IOECCS) is, "the PSRVs [Pressurizer Safety Relief Valves] ... must be capable of closing after release of subcooled water." NRR staff will re-evaluate its position on this technical issue and document what constitutes acceptable qualification of PSVs for liquid discharge.

This technical issue and the licensing implications were discussed in the current version of RIS 2005-29, which was published on December 14, 2005. This RIS was reviewed by the Office of the General Counsel (OGC) and the Committee to Review Generic Requirements (CRGR), who determined that the RIS did not represent a backfit. When the staff imposed the compliance backfit on Braidwood and Byron plants in October 2015, an effort began to revise RIS 2005-29 to incorporate information from the plant-specific backfit. Since Exelon's appeal of the backfit has been granted, this proposed revision will be placed on hold to allow the staff to revisit the NSAL-93-013 technical issue in question. Because at least some sites rely on power operated relief valve operation to prevent water relief from PSVs, the staff will also review the closure of Generic Issue 70, "Power-Operated Relief Valve and Block Valve Reliability." The staff will then identify an appropriate process for dispositioning and communicating the technical issue and will implement that process in accordance with Agency guidance. The staff will also determine how to address the position stated in the current publicly available version of RIS 2005-29. This could involve a revision to the RIS to further clarify the staff's position or implementation of another agency process should the staff (with the assistance of OGC and CRGR) determine that its position is new or different.

Once the staff has revisited its position on the underlying technical issue ~~in NSAL-93-013~~ and clearly articulated ~~its~~the position, plant-specific actions can be evaluated and implemented, if necessary. Regardless of the process used, the staff will ensure its position is reviewed by OGC and CRGR to ensure appropriate backfit consideration.

Enclosure:  
As stated

**DISTRIBUTION:**

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RidsResMailCenter	RidsNrrDss	KSWest, NSIR
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<b>NAME</b>	AGarmoe		EOesterle	DAlley	TMcGinty
<b>DATE</b>					
<b>OFFICE</b>	NRR/DE	NRR/DD	NRR/DD	NRR/D	
<b>NAME</b>	JLubinski	MEvans	BMcDermott	WDean	
<b>DATE</b>					

Milestones for Addressing the Underlying Technical Issue in NSAL-93-013

Implementation Plan Details	Target Date
Define underlying technical issues in NSAL	Complete
Identify relevant operating experience, assess the extent of condition across the fleet, and determine if the underlying technical issue has safety significance	2/28/2017
Determine ASME code requirements for qualification and testing of water-qualified valves and applicable NRC requirements or positions regarding such qualification and testing.	2/28/2017
Develop appropriate message to be communicated regarding the technical issue, regulatory requirements, and status of the fleet	2/28/2017
Determine the appropriate process for disposition/communication of staff position. Consider whether any aspects of the issue should be included in the Generic Issues Program <u>and whether GI-70 should be re-assessed or updated.</u>	3/31/2017
Implement the selected process in accordance with Agency guidance	TBD based on selected process
Consider plant-specific actions to address concerns identified in extent of condition review	Following completion of communication of the staff's position

Internal Detailed Plan to Address NSAL-93-013 Underlying Technical Issue

Implementation Plan Details	Target Date
Define underlying technical issues in NSAL	Complete
<p>Identify relevant operating experience, assess the extent of condition across the fleet, and determine if the underlying technical issue has safety significance</p> <ul style="list-style-type: none"> <li>○ Work with DIRS/IOEB to identify operating experience related to IOECCS occurrences and relevant data on PSV performance</li> <li>○ DSS/SRXB to lead identification of the potentially affected plant designs and licensees, what NRC has previously accepted with respect to PSV qualification, and determination of whether PSV application appears appropriate for these licensees</li> <li>○ <u>Determine whether closure of GI-70 remains acceptable and/or impacts the staff position on the technical issue in NSAL-93-013 (Consider information from TGody in Memo to NRR Backfit Panel (ML16081A405)</u></li> <li>○ Document this outcome in a white paper from DSS/SRXB to DSS management</li> </ul>	2/28/2017
<p>Determine ASME code requirements for qualification and testing of water-qualified valves and applicable NRC requirements or positions regarding such qualification and testing.</p> <ul style="list-style-type: none"> <li>○ Identify applicable ASME code language</li> <li>○ Identify applicable NRC requirements and what specifically is required</li> <li>○ Identify any gaps or lack of clarity in requirements</li> </ul>	2/28/2017
<p>Develop appropriate message to be communicated regarding the technical issue, regulatory requirements, and status of the fleet</p> <ul style="list-style-type: none"> <li>○ Is there a concern with PSV application and methods of qualification?</li> <li>○ What is the extent of condition across the fleet?</li> <li>○ Is long term operation of PSVs with water and steam technically feasible?</li> <li>○ What has been previously accepted</li> </ul>	2/28/2017

<p>for PSV qualification by NRC?</p> <ul style="list-style-type: none"> <li>○ What are currently acceptable methods of PSV qualification?</li> <li>○ What are ASME OM code requirements for testing water-qualified valves?</li> </ul>	
<p>Determine the appropriate process for disposition/communication of staff position. Consider whether any aspects of the issue should be included in the Generic Issues Program.</p> <ul style="list-style-type: none"> <li>○ Consider <u>whether GI-70 should be re-assessed or updated</u> (information from TGody <del>in</del> Memo to NRR Backfit Panel (ML16081A405)</li> <li>○ Ensure coordination and review by OGC and CRGR</li> </ul>	3/31/2017
<p>Implement the selected process in accordance with Agency guidance</p>	TBD based on selected process
<p>Consider plant-specific actions to address concerns identified in extent of condition review</p>	Following completion of communication of the staff's position

**From:** [Alley, David](#)  
**To:** [Garmoe, Alex](#); [Stuchell, Sheldon](#); [Oesterle, Eric](#); [Whitman, Jennifer](#); [Billerbeck, John](#); [Farnan, Michael](#)  
**Subject:** RE: Draft Response to EDO Re: Braidwood/Byron Backfit Overturn  
**Date:** Monday, November 28, 2016 2:33:49 PM

---

Alex,

I have included John Billerbeck and Mike Farnan on this just to make sure I am not misspeaking.

EPNB's involvement in this is predominantly limited to the safety valves, including their function, qualification and testing. My goal is to assess the narrow scope associated with the valves. While I have no objection to assessing the broader scope proposed by Tony, I don't believe my branch organizationally has anything to add to that broader discussion. That is not to say we have no personal interest in the issue. Irrespective of the manner in which we choose to proceed, we will remain fully engaged especially with respect to valve testing requirements

Dave

---

**From:** Garmoe, Alex  
**Sent:** Monday, November 28, 2016 1:45 PM  
**To:** Stuchell, Sheldon <Sheldon.Stuchell@nrc.gov>; Oesterle, Eric <Eric.Oesterle@nrc.gov>; Whitman, Jennifer <Jennifer.Whitman@nrc.gov>; Alley, David <David.Alley@nrc.gov>  
**Subject:** FW: Draft Response to EDO Re: Braidwood/Byron Backfit Overturn

Good afternoon,

Please see the below comments from Tony Gody about the draft response to the EDO. To summarize, he is concerned that we may be taking too narrow of a view by focusing only on PSV water qualification and not more broadly on industry actions in response to RCS overfill. Is the intention, despite the current narrow language in the response memo, to consider this more broad perspective in our re-assessment of the issue? If not, should we do so? I'll consider updating the draft response memo once we are aligned on Tony's comments.

Thanks,  
Alex

---

**From:** Gody, Tony  
**Sent:** Monday, November 28, 2016 12:47 PM  
**To:** Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>  
**Subject:** RE: Draft Response to EDO Re: Braidwood/Byron Backfit Overturn

Alex,

My thoughts. If the proposed staff actions are limited to the milestones for addressing the underlying technical issue in NSAL-93-013 attached to the draft memorandum to Victor McCree they appear too narrow. If the staff focuses on just their technical concern (namely PSV qualification to pass water) then the broader question about whether the industry



methodology to address an RCS overfill event is acceptable will not be answered. In my opinion, we should not narrowly focus on just one technical aspect of this event. By doing so, we lose an opportunity to address, for once, the questions about whether the industry has developed an acceptable approach to prevent what caused the Three Mile Island event.

The memo from me dated March 21, 2016, shows that the industry has addressed the RCS overfill event in many different ways, some of which may be acceptable, nearly all of which were not challenged by us. After my very quick review of the 10 FSARs, it became apparent to me that we (the NRC) have not developed a unified approach to addressing Generic Safety Issue 70. This combined with the staff position that the PORV and its' associated block valve be designated safety-related (which is a change from our conclusion in NUREG-1316) if it is relied upon to address the RCS overfill event has resulted in an increasing number of licensee's relying on their PSVs to address the event.

Of course, it am reading the staff's proposal to limit its efforts to PSV qualification to pass water wrong, then ..... never mind.

Thanks for giving me an opportunity to comment.

Tony

---

**From:** Garmoe, Alex

**Sent:** Wednesday, November 23, 2016 11:57 AM

**To:** Gody, Tony <[Tony.Gody@nrc.gov](mailto:Tony.Gody@nrc.gov)>

**Subject:** Draft Response to EDO Re: Braidwood/Byron Backfit Overturn

Tony,

I hope things have been going well for you down in Atlanta. As you likely recall, the EDO accepted an appeal panel recommendation to overturn the Braidwood/Byron compliance backfit after Exelon submitted a second-level appeal. On September 15, the EDO sent a memo to Bill Dean explaining his decision and requesting to be informed within 120 days of our plan to address the following items:

- Assess the treatment of the underlying technical issue described in the 1993 Westinghouse Nuclear Safety Advisory Letter (NSAL-93-013) on PSV performance after water discharge at pressurized-water reactors.
- The positions included in RIS 2005-29, as well as its proposed Revision 1, should be (re)assessed through the appropriate generic process to ensure they receive appropriate backfit consideration.

I have been working with technical staff from DSS and DE to develop a response to the memo. Since the draft response directs staff to take into account the information provided in your memo to the NRR backfit review panel, I am including our current draft for your review and comment. If possible, your comments would be appreciated by mid-day Tuesday 11/29.

Thank you and Happy Thanksgiving!



**Alexander D. Garmoe**

Senior Project Manager

Generic Communications Branch (PGCB)  
Division of Policy and Rulemaking (DPR)  
Office of Nuclear Reactor Regulation (NRR)  
Alex.Garmoe@nrc.gov | 301-415-3814

**From:** [Garmoe, Alex](#)  
**To:** [Oesterle, Eric](#); [Alley, David](#); [Stuchell, Sheldon](#); [Whitman, Jennifer](#); [Billerbeck, John](#); [Farnan, Michael](#)  
**Subject:** RE: Draft Response to EDO Re: Braidwood/Byron Backfit Overturn  
**Date:** Tuesday, November 29, 2016 8:14:29 AM

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Thanks for the prompt feedback – it sounds like we all agree that Tony’s comments are in scope and worth including in our plan. I’ll send him the redline strikeout updated files so he can see our revisions to reflect his comments. Barring any further comments in the next couple hours, I’ll update tomorrow’s calendar appointment with the latest files for discussion. Rob Taylor and MJ Ross-Lee have accepted the appointment so I’m presuming that’s who we’ll be briefing.

Once we have mgmt. alignment on the drafts I’ll start routing it through concurrence to support a December 8 briefing of the NRR ET. The goal is to have the package with the front office for signature by early in the week of 12/12, which will give the ET a couple weeks around Christmas/New Year’s to review and sign out the response memo, which is due by January 13.

Alex

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**From:** Oesterle, Eric  
**Sent:** Tuesday, November 29, 2016 6:53 AM  
**To:** Garmoe, Alex <Alex.Garmoe@nrc.gov>; Alley, David <David.Alley@nrc.gov>; Stuchell, Sheldon <Sheldon.Stuchell@nrc.gov>; Whitman, Jennifer <Jennifer.Whitman@nrc.gov>; Billerbeck, John <John.Billerbeck@nrc.gov>; Farnan, Michael <Michael.Farnan@nrc.gov>  
**Subject:** RE: Draft Response to EDO Re: Braidwood/Byron Backfit Overturn

Alex,

Good updates. My only comment is on the dates. See attached for proposed revised dates.

Also, I think Tony’s holistic review approach is consistent with what I had proposed early on:

The underlying technical issue associated with NSAL-93-013 is qualification of pressurizer safety valves (PSVs) for water discharge to ensure adequate performance in response to an inadvertent operation of emergency core cooling system (IOECCS) at power event. The analysis of an IOECCS event includes prevention of the pressurizer from becoming water solid, which could result in an unisolable breach of the reactor coolant system (RCS) should a PSV stick open following water relief. The transition of an IOECCS event to an unisolable breach of the RCS would result in violation of another licensing criterion, specifically the prevention of a condition II event (as defined in XXX) from transitioning to a condition III event (also as defined in XXX) without an additional failure. To preclude the pressurizer from going solid the following actions were credited (where?):

- a) Operator action to secure high head safety injection pumps prior to pressurizer fill
- b) If the operator action was not timely, provide pressure relief through PORV(s)
- c) If block valves were maintained normally closed during power operation, amend TS to allow at least one block valve to be open during power operation so that a PORV could

be used for this event

- d) If block valves were maintained normally closed during power operation, allow discharge through PSVs, however PSVs must be qualified for liquid discharge
- e) If PSVs were not qualified for liquid discharge, replace or upgrade PSVs for liquid discharge
- f) Discharge piping for the PORVs/PSVs all the way to the pressurizer relief tank must be qualified for liquid discharge

Each of these steps associated with the ECCS must be considered for every PWR licensee, including the equivalent mass addition event analyses for those PWR licensees with CE and B&W nuclear steam supply systems. The NRC must also determine what constitutes acceptable qualification of PSVs for liquid discharge, if the PSVs are credited for reseating following liquid discharge, such that an IOECCS event does not transition to an unisolable breach of the RCS (small break LOCA) as a result of the failure of a PSV to reseal.

Eric

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**From:** Garmoe, Alex

**Sent:** Monday, November 28, 2016 5:24 PM

**To:** Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Stuchell, Sheldon <[Sheldon.Stuchell@nrc.gov](mailto:Sheldon.Stuchell@nrc.gov)>; Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Farnan, Michael <[Michael.Farnan@nrc.gov](mailto:Michael.Farnan@nrc.gov)>

**Subject:** RE: Draft Response to EDO Re: Braidwood/Byron Backfit Overturn

Folks,

In the event the tech staff agrees that Tony's suggestion should be included in our plan, I have drafted an optional update to the response memo to the EDO. Additional language to incorporate Tony's concern is included in the attached redline strikeout files. Your thoughts on including Tony's comments and the additional memo language are welcomed, ideally by mid-day Tuesday to support a Wednesday morning discussion with DE and DSS management.

Thanks,  
Alex

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**From:** Alley, David

**Sent:** Monday, November 28, 2016 2:34 PM

**To:** Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>; Stuchell, Sheldon <[Sheldon.Stuchell@nrc.gov](mailto:Sheldon.Stuchell@nrc.gov)>; Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Farnan, Michael <[Michael.Farnan@nrc.gov](mailto:Michael.Farnan@nrc.gov)>

**Subject:** RE: Draft Response to EDO Re: Braidwood/Byron Backfit Overturn

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Dave

---

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Tony

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Thank you and Happy Thanksgiving!



**Alexander D. Garmoe**

Senior Project Manager

Generic Communications Branch (PGCB)

Division of Policy and Rulemaking (DPR)

Office of Nuclear Reactor Regulation (NRR)

Alex.Garmoe@nrc.gov | 301-415-3814

**From:** [Billerbeck, John](#)  
**To:** [Alley, David](#)  
**Subject:** RE: Providing EDO feedback on the byron backfit issue  
**Date:** Wednesday, August 31, 2016 2:23:27 PM

---

Dave,

I'm OK with Rob's proposed edit.

John

---

**From:** Taylor, Robert  
**Sent:** Wednesday, August 31, 2016 2:12 PM  
**To:** Alley, David <David.Alley@nrc.gov>  
**Cc:** Lubinski, John <John.Lubinski@nrc.gov>; Billerbeck, John <John.Billerbeck@nrc.gov>  
**Subject:** RE: Providing EDO feedback on the byron backfit issue

Dave,

Thanks for the input. If it is ok with you, I would like to delete the last two sentences. The last one because the point of the backfit was to say they were out of compliance with the regulations, so it is redundant in my mind. The second to last one because we didn't cite them for non-compliance with 50.55a. I think your points are valid and perhaps we should have cited them for non-compliance with 50.55a. I think without the sentences you make it clear that the ASME code is a known and established standard and that there are appropriate vehicles for seeking alternatives to the code requirements.

Are you ok with that?

Rob

---

**From:** Alley, David  
**Sent:** Wednesday, August 31, 2016 10:53 AM  
**To:** Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>  
**Cc:** Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>  
**Subject:** FW: Providing EDO feedback on the byron backfit issue

Rob,

John Lubinski requested that we review the backfit one pager and comment to you. We (John Billerbeck and I) propose an additional bullet which gets to the heart of regulatory compliance

We propose

- 10 CFR 50.55a requires nuclear power plants to be initially designed and constructed IAW ASME Boiler and Pressure Vessel Code (BPVC), Section III and to be tested throughout their service life IAW ASME OM Code. These codes comprise the qualification standards for ASME Class 1 safety valves such as the pressurizer PSVs

with which licensees are required to comply unless alternatives have been authorized by the staff IAW 10 CFR 50.55a. Byron and Braidwood are not in compliance with the ASME Code and do not possess an NRC approved alternative. Therefore Byron and Braidwood are not in compliance with the Code of Federal Regulations.

Dave

---

**From:** Lubinski, John  
**Sent:** Tuesday, August 30, 2016 11:54 AM  
**To:** Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>  
**Cc:** Ross-Lee, MaryJane <[MaryJane.Ross-Lee@nrc.gov](mailto:MaryJane.Ross-Lee@nrc.gov)>  
**Subject:** FW: Providing EDO feedback on the byron backfit issue

Any comments on this?

---

**From:** Whitman, Jennifer  
**Sent:** Tuesday, August 30, 2016 11:48 AM  
**To:** Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>; Ross-Lee, MaryJane <[MaryJane.Ross-Lee@nrc.gov](mailto:MaryJane.Ross-Lee@nrc.gov)>; Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Wilson, George <[George.Wilson@nrc.gov](mailto:George.Wilson@nrc.gov)>; McGinty, Tim <[Tim.McGinty@nrc.gov](mailto:Tim.McGinty@nrc.gov)>  
**Subject:** RE: Providing EDO feedback on the byron backfit issue

I've modified the second to last bullet to better incorporate the EPRI test data in the attached PDF. I've highlighted the appropriate passages (pages 28 and 53 of the PDF).

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**From:** Taylor, Robert  
**Sent:** Tuesday, August 30, 2016 7:03 AM  
**To:** Ross-Lee, MaryJane <[MaryJane.Ross-Lee@nrc.gov](mailto:MaryJane.Ross-Lee@nrc.gov)>; Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Wilson, George <[George.Wilson@nrc.gov](mailto:George.Wilson@nrc.gov)>; McGinty, Tim <[Tim.McGinty@nrc.gov](mailto:Tim.McGinty@nrc.gov)>  
**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>  
**Subject:** RE: Providing EDO feedback on the byron backfit issue

All,

Per Bill's request, I have drafted the attached one-pager. Please consider it rough and provide any comments you have. Jen, please fact check for me.

Rob

---

**From:** Dean, Bill  
**Sent:** Monday, August 29, 2016 6:04 PM  
**To:** Ross-Lee, MaryJane <[MaryJane.Ross-Lee@nrc.gov](mailto:MaryJane.Ross-Lee@nrc.gov)>; Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Wilson, George



<[George.Wilson@nrc.gov](mailto:George.Wilson@nrc.gov)>; McGinty, Tim <[Tim.McGinty@nrc.gov](mailto:Tim.McGinty@nrc.gov)>; Taylor, Robert  
<[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>

**Cc:** McDermott, Brian <[Brian.McDermott@nrc.gov](mailto:Brian.McDermott@nrc.gov)>; Evans, Michele <[Michele.Evans@nrc.gov](mailto:Michele.Evans@nrc.gov)>

**Subject:** Providing EDO feedback on the byron backfit issue

I asked mike johnson about getting with Vic before he signs out the backfit appeal package and he thought that was good to do – he indicated he and Vic are both just starting to read it. I would be interested in a handful of key talking points that the staff would like to make sure we share with him. I heard some things this morning re: certain recommended taskings that we think are way off base, but I would also like to reinforce where we have issues with certain references that were relied upon and flaws in their technical views re: water qualification. Maybe in a couple of days?

*BILL*

**From:** [Alley, David](#)  
**To:** [Taylor, Robert](#)  
**Cc:** [Lubinski, John](#); [Billerbeck, John](#)  
**Subject:** RE: Providing EDO feedback on the byron backfit issue  
**Date:** Wednesday, August 31, 2016 4:23:47 PM

---

Rob,

My apologies for the slow reply. John stuck his head into my office a while ago and indicated that you were going to only use part of what we submitted. That is fine. Thanks for letting us take part.

Depending on the outcome of this effort, it may be worthwhile to discuss where we may be in enforcement space.

Dave

---

**From:** Taylor, Robert  
**Sent:** Wednesday, August 31, 2016 2:12 PM  
**To:** Alley, David <David.Alley@nrc.gov>  
**Cc:** Lubinski, John <John.Lubinski@nrc.gov>; Billerbeck, John <John.Billerbeck@nrc.gov>  
**Subject:** RE: Providing EDO feedback on the byron backfit issue

Dave,

Thanks for the input. If it is ok with you, I would like to delete the last two sentences. The last one because the point of the backfit was to say they were out of compliance with the regulations, so it is redundant in my mind. The second to last one because we didn't cite them for non-compliance with 50.55a. I think your points are valid and perhaps we should have cited them for non-compliance with 50.55a. I think without the sentences you make it clear that the ASME code is a known and established standard and that there are appropriate vehicles for seeking alternatives to the code requirements.

Are you ok with that?

Rob

---

**From:** Alley, David  
**Sent:** Wednesday, August 31, 2016 10:53 AM  
**To:** Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>  
**Cc:** Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>  
**Subject:** FW: Providing EDO feedback on the byron backfit issue

Rob,

John Lubinski requested that we review the backfit one pager and comment to you. We (John Billerbeck and I) propose an additional bullet which gets to the heart of regulatory compliance

We propose

- 10 CFR 50.55a requires nuclear power plants to be initially designed and constructed IAW ASME Boiler and Pressure Vessel Code (BPVC), Section III and to be tested throughout their service life IAW ASME OM Code. These codes comprise the qualification standards for ASME Class 1 safety valves such as the pressurizer PSVs with which licensees are required to comply unless alternatives have been authorized by the staff IAW 10 CFR 50.55a. Byron and Braidwood are not in compliance with the ASME Code and do not possess an NRC approved alternative. Therefore Byron and Braidwood are not in compliance with the Code of Federal Regulations.

Dave

---

**From:** Lubinski, John  
**Sent:** Tuesday, August 30, 2016 11:54 AM  
**To:** Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>  
**Cc:** Ross-Lee, MaryJane <[MaryJane.Ross-Lee@nrc.gov](mailto:MaryJane.Ross-Lee@nrc.gov)>  
**Subject:** FW: Providing EDO feedback on the byron backfit issue

Any comments on this?

---

**From:** Whitman, Jennifer  
**Sent:** Tuesday, August 30, 2016 11:48 AM  
**To:** Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>; Ross-Lee, MaryJane <[MaryJane.Ross-Lee@nrc.gov](mailto:MaryJane.Ross-Lee@nrc.gov)>; Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Wilson, George <[George.Wilson@nrc.gov](mailto:George.Wilson@nrc.gov)>; McGinty, Tim <[Tim.McGinty@nrc.gov](mailto:Tim.McGinty@nrc.gov)>  
**Subject:** RE: Providing EDO feedback on the byron backfit issue

I've modified the second to last bullet to better incorporate the EPRI test data in the attached PDF. I've highlighted the appropriate passages (pages 28 and 53 of the PDF).

---

**From:** Taylor, Robert  
**Sent:** Tuesday, August 30, 2016 7:03 AM  
**To:** Ross-Lee, MaryJane <[MaryJane.Ross-Lee@nrc.gov](mailto:MaryJane.Ross-Lee@nrc.gov)>; Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Wilson, George <[George.Wilson@nrc.gov](mailto:George.Wilson@nrc.gov)>; McGinty, Tim <[Tim.McGinty@nrc.gov](mailto:Tim.McGinty@nrc.gov)>  
**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>  
**Subject:** RE: Providing EDO feedback on the byron backfit issue

All,

Per Bill's request, I have drafted the attached one-pager. Please consider it rough and provide any comments you have. Jen, please fact check for me.

Rob

---

**From:** Dean, Bill

**Sent:** Monday, August 29, 2016 6:04 PM

**To:** Ross-Lee, MaryJane <[MaryJane.Ross-Lee@nrc.gov](mailto:MaryJane.Ross-Lee@nrc.gov)>; Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Wilson, George <[George.Wilson@nrc.gov](mailto:George.Wilson@nrc.gov)>; McGinty, Tim <[Tim.McGinty@nrc.gov](mailto:Tim.McGinty@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>

**Cc:** McDermott, Brian <[Brian.McDermott@nrc.gov](mailto:Brian.McDermott@nrc.gov)>; Evans, Michele <[Michele.Evans@nrc.gov](mailto:Michele.Evans@nrc.gov)>

**Subject:** Providing EDO feedback on the byron backfit issue

I asked mike johnson about getting with Vic before he signs out the backfit appeal package and he thought that was good to do – he indicated he and Vic are both just starting to read it. I would be interested in a handful of key talking points that the staff would like to make sure we share with him. I heard some things this morning re: certain recommended taskings that we think are way off base, but I would also like to reinforce where we have issues with certain references that were relied upon and flaws in their technical views re: water qualification. Maybe in a couple of days?

*BILL*

**From:** [Billerbeck, John](#)  
**To:** [Alley, David](#); [Whitman, Jennifer](#); [Garmoe, Alex](#); [Oesterle, Eric](#); [Stuchell, Sheldon](#); [Farnan, Michael](#)  
**Cc:** [Billerbeck, John](#)  
**Subject:** RE: Question: Backfit Response Plan  
**Date:** Wednesday, November 30, 2016 7:09:26 AM

---

Yes. I'm onboard. The only comment that I might have at this point is that the ASME code requirements for SRV design, qualification and testing are fairly straightforward and go back many, many years. So, I'm not sure how much ASME code committee involvement we will have on this issue going forward.

---

**From:** Alley, David  
**Sent:** Wednesday, November 30, 2016 6:57 AM  
**To:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>; Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Stuchell, Sheldon <[Sheldon.Stuchell@nrc.gov](mailto:Sheldon.Stuchell@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Farnan, Michael <[Michael.Farnan@nrc.gov](mailto:Michael.Farnan@nrc.gov)>  
**Subject:** RE: Question: Backfit Response Plan

All,  
As I am on travel I am not giving this full attention. It does however appear that this is headed in a good direction.

John Billerbeck  
Since I haven't heard anything dissenting from you, I presume that you are happy with where things are going.

Dave

---

**From:** Whitman, Jennifer  
**Sent:** Tuesday, November 29, 2016 4:27 PM  
**To:** Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>; Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Stuchell, Sheldon <[Sheldon.Stuchell@nrc.gov](mailto:Sheldon.Stuchell@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Farnan, Michael <[Michael.Farnan@nrc.gov](mailto:Michael.Farnan@nrc.gov)>  
**Subject:** RE: Question: Backfit Response Plan

I believe the basis for the detailed plan being non-public is that it is pre-decisional information and the less detailed plan with the memo contains the basic steps.

---

**From:** Garmoe, Alex  
**Sent:** Tuesday, November 29, 2016 4:20 PM  
**To:** Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Stuchell, Sheldon <[Sheldon.Stuchell@nrc.gov](mailto:Sheldon.Stuchell@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Farnan, Michael <[Michael.Farnan@nrc.gov](mailto:Michael.Farnan@nrc.gov)>  
**Subject:** Question: Backfit Response Plan

All,

We've been developing the response to the EDO via a memorandum that we always knew would be publicly available and a more detailed milestone plan that initially was thought to perhaps remain non-public. Sheldon and I were discussing this non-public detailed milestone plan and wondering if there really is a basis or reason to keep it non-public. I would like to know your thoughts on whether we should make the more detailed plan public as a standalone document or attached it to the memo.

Also, I recalled feedback from Rob Taylor that we should inform the EDO that we'd be involve with the ASME code committee as we move forward with an understanding of code requirements. I added language to the third milestone to reflect this, as follows:

*Determine ASME code requirements for qualification and testing of water-qualified valves and applicable NRC requirements or positions regarding such qualification and testing. **Determination to be informed by interaction with ASME code committee.***

Let me know if the added language concerns you.

Thanks,



**Alexander D. Garmoe**

Senior Project Manager

Generic Communications Branch (PGCB)

Division of Policy and Rulemaking (DPR)

Office of Nuclear Reactor Regulation (NRR)

Alex.Garmoe@nrc.gov | 301-415-3814

**From:** [Alley, David](#)  
**To:** [Clark, Theresa](#); [Billerbeck, John](#)  
**Subject:** RE: REQUEST: DE discussion w/ Exelon backfit appeal panel  
**Date:** Monday, July 18, 2016 3:53:41 PM

---

Theresa,

Let me see what I can do

John,

Was this your issue and if so can you come to a meeting on Wednesday.

Dave

---

**From:** Clark, Theresa  
**Sent:** Monday, July 18, 2016 3:48 PM  
**To:** Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>  
**Cc:** Holahan, Gary <[Gary.Holahan@nrc.gov](mailto:Gary.Holahan@nrc.gov)>  
**Subject:** RE: REQUEST: DE discussion w/ Exelon backfit appeal panel

If possible (it did for the DSS discussion). I didn't see their names on the October 2015 letter so I didn't attempt to include them, but it looks like from the input that John Billerbeck might have been involved with an earlier version.

---

**From:** Alley, David  
**Sent:** Monday, July 18, 2016 3:45 PM  
**To:** Clark, Theresa <[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov)>; Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>  
**Cc:** Holahan, Gary <[Gary.Holahan@nrc.gov](mailto:Gary.Holahan@nrc.gov)>  
**Subject:** RE: REQUEST: DE discussion w/ Exelon backfit appeal panel

Should this include the technical evaluators?

Dave

---

**From:** Clark, Theresa  
**Sent:** Monday, July 18, 2016 2:55 PM  
**To:** Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>  
**Cc:** Holahan, Gary <[Gary.Holahan@nrc.gov](mailto:Gary.Holahan@nrc.gov)>  
**Subject:** REQUEST: DE discussion w/ Exelon backfit appeal panel

John,

Following their meeting with DSS earlier today, the EDO-level appeal panel for the Exelon backfit (Byron/Braidwood PORV/PSV) would like to meet with you and Dave Alley for an informal discussion of your review role in the 2015 backfit letter (where you're on concurrence).

The panel has a regularly scheduled meeting on **Wednesday at 1pm**. Dave looks to be free, but you have a conflict. These panel folks have pretty busy schedules so it's hard to find a time that works for all. Is there any chance you can make 1pm Wednesday work? Please let me know; if not, I'll search for another time.

Thanks so much!

--

**Theresa Valentine Clark**

Executive Technical Assistant (Reactors)

U.S. Nuclear Regulatory Commission

[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov) | 301-415-4048 | O-16E22

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

**From:** CLARK, THERESA V

**Sent:** Friday, June 24, 2016 11:08 AM

**To:** CLARK, THERESA V; HOLAHAN, GARY M; WEST, Steven S; SCARBROUGH, THOMAS G; SPENCER, MICHAEL A

**Subject:** backfit appeal panel

**When:** Wednesday, July 20, 2016 1:00 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:** O-16B2



**From:** [Oesterle, Eric](#)  
**To:** [Case, Michael](#); [Wiebe, Joel](#); [Billerbeck, John](#); [Banic, Merrilee](#); [Sun, Summer](#); [Figueroa Toledo, Gladys](#); [Kirkwood, Sara](#); [Drzewiecki, Timothy](#); [Beaton, Robert](#); [Borromeo, Joshua](#)  
**Cc:** [Wrona, David](#)  
**Subject:** RE: Revision to my initial thoughts regarding the petition provided by my e-mail dated January 11, 2017  
**Date:** Wednesday, January 25, 2017 11:40:36 AM  
**Attachments:** [image001.png](#)

---

Yes, nice job. Based on my recollection of the reading the 2.206 some time ago, I believe there are specific issues raised in the 2.206 that are not addressed in the action plan tasked by the EDO (e.g., issue of reduction in margin of safety).

### **Eric R. Oesterle / Chief**

Reactor Systems Branch (SRXB)  
Division of Safety Systems (DSS)  
Office of Nuclear Reactor Regulation (NRR)  
301-415-1014



---

**From:** Case, Michael  
**Sent:** Wednesday, January 25, 2017 11:25 AM  
**To:** Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>; Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Banic, Merrilee <[Merrilee.Banic@nrc.gov](mailto:Merrilee.Banic@nrc.gov)>; Sun, Summer <[Summer.Sun@nrc.gov](mailto:Summer.Sun@nrc.gov)>; Figueroa Toledo, Gladys <[Gladys.Figueroa@nrc.gov](mailto:Gladys.Figueroa@nrc.gov)>; Kirkwood, Sara <[Sara.Kirkwood@nrc.gov](mailto:Sara.Kirkwood@nrc.gov)>; Drzewiecki, Timothy <[Timothy.Drzewiecki@nrc.gov](mailto:Timothy.Drzewiecki@nrc.gov)>; Beaton, Robert <[Robert.Beaton@nrc.gov](mailto:Robert.Beaton@nrc.gov)>; Borromeo, Joshua <[Joshua.Borromeo@nrc.gov](mailto:Joshua.Borromeo@nrc.gov)>; Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>  
**Cc:** Wrona, David <[David.Wrona@nrc.gov](mailto:David.Wrona@nrc.gov)>  
**Subject:** RE: Revision to my initial thoughts regarding the petition provided by my e-mail dated January 11, 2017

Nice job Joel. That path seems to match my initial thoughts as well. I want to go back and read the petition with the mindset of trying to determine what information may be "new".

---

**From:** Wiebe, Joel  
**Sent:** Wednesday, January 25, 2017 10:56 AM  
**To:** Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Banic, Merrilee <[Merrilee.Banic@nrc.gov](mailto:Merrilee.Banic@nrc.gov)>; Sun, Summer <[Summer.Sun@nrc.gov](mailto:Summer.Sun@nrc.gov)>; Case, Michael <[Michael.Case@nrc.gov](mailto:Michael.Case@nrc.gov)>; Figueroa Toledo, Gladys <[Gladys.Figueroa@nrc.gov](mailto:Gladys.Figueroa@nrc.gov)>; Kirkwood, Sara <[Sara.Kirkwood@nrc.gov](mailto:Sara.Kirkwood@nrc.gov)>; Drzewiecki, Timothy <[Timothy.Drzewiecki@nrc.gov](mailto:Timothy.Drzewiecki@nrc.gov)>; Beaton, Robert <[Robert.Beaton@nrc.gov](mailto:Robert.Beaton@nrc.gov)>; Borromeo, Joshua <[Joshua.Borromeo@nrc.gov](mailto:Joshua.Borromeo@nrc.gov)>; Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>  
**Cc:** Wrona, David <[David.Wrona@nrc.gov](mailto:David.Wrona@nrc.gov)>  
**Subject:** Revision to my initial thoughts regarding the petition provided by my e-mail dated January 11, 2017

I am continuing to go through the petition as well as go through the EDO's letter dated September 15, 2016, and the supporting report dated August 24, 2016.

The petition is for Byron and Braidwood.

The EDO's letter and the supporting Backfit Appeal Review Panel (Panel) report are specifically about Byron and Braidwood. The EDO's letter states:

"I agree with the Panel's assessment that the current licensing basis for Byron and Braidwood complies with the applicable regulations and provides adequate protection of public health and safety."

Based on the EDO's statement and my review of the report from the Panel, it appears that the petition meets the criteria for rejecting Petitions under 10 CFR 2.206, specifically the criterion in MD 8.11, Part III, (C)(2)(b):

The petitioner raises issues that have already been the subject of NRC staff review and evaluation either on that facility, other similar facilities, or on a generic basis, for which a resolution has been achieved, the issues have been resolved, and the resolution is applicable to the facility in question. This would include requests to reconsider or reopen a previous enforcement action (including a decision not to initiate an enforcement action) or a director's decision. These requests will not be treated as a 2.206 petition unless they present significant new information.

In this case the petition essentially requests the NRC to reopen the backfit decision.

As I see it, the issues that have been resolved for Braidwood and Byron in the Panel's report include:

**PSV Failure** – Panel Report, Section 4.2 – “The Panel concluded that in 2001 and 2004 and at present, the known and established standard of the Commission is that the failures of PSVs need not be assumed to occur following water discharge if the likelihood is sufficiently small, based on well-informed staff engineering judgment. The Commission has not established a more detailed or prescriptive standard.

**Event Escalation** – Panel Report, Section 5 – “. . . in the absence of a PSV failure to reseat, the Panel concluded that the concerns articulated by the NRC staff in the Backfit SE related to event classification, event escalation, and compliance with 10 CFR 50.34(b) and GDCs 15, 21, and 29 are no longer at issue.

**Event Classification** - Panel Report, Section 5 – “. . . in the absence of a PSV failure to reseat, the Panel concluded that the concerns articulated by the NRC staff in the Backfit SE related to event classification, event escalation, and compliance with 10 CFR 50.34(b) and GDCs 15, 21, and 29 are no longer at issue.

**Compliance with Regulations** - Panel Report, Section 5 – “. . . in the absence of a PSV failure to reseat, the Panel concluded that the concerns articulated by the NRC staff in the Backfit SE related to event classification, event escalation, and compliance with 10 CFR 50.34(b) and GDCs 15, 21, and 29 are no longer at issue.

**Adequate Protection** – Panel Report, Section 4.4 – “. . . the Panel concluded that the current licensing basis for Byron and Braidwood complies with the applicable regulations and provides adequate protection of the public health and safety.

Based on the above, I see the **PRB's primary task will be to identify any significant new information** (in the petition as supplemented by the petitioners remarks on February 1, 2017) that would invalidate the issue resolution as presented in the Backfit Appeal Review Panel Report.

Joel

---

**From:** Wiebe, Joel

**Sent:** Wednesday, January 11, 2017 4:19 PM

**To:** Billerbeck, John <[John.Billerbeck@nrc.gov](mailto:John.Billerbeck@nrc.gov)>; Banic, Merrilee <[Merrilee.Banic@nrc.gov](mailto:Merrilee.Banic@nrc.gov)>; Sun, Summer <[Summer.Sun@nrc.gov](mailto:Summer.Sun@nrc.gov)>; Case, Michael <[Michael.Case@nrc.gov](mailto:Michael.Case@nrc.gov)>; Figueroa Toledo, Gladys <[Gladys.Figueroa@nrc.gov](mailto:Gladys.Figueroa@nrc.gov)>; Kirkwood, Sara <[Sara.Kirkwood@nrc.gov](mailto:Sara.Kirkwood@nrc.gov)>; Drzewiecki, Timothy <[Timothy.Drzewiecki@nrc.gov](mailto:Timothy.Drzewiecki@nrc.gov)>

**Subject:** Miranda 2.206 Petition

Attached is my first screening of the items in the petition.

Please provide comments or markups by 1/19.

In addition to the attached my thoughts are that:

1. Since the issues involved are not resolved, but under review at the direction of the EDO (ML16246A247), we don't meet the criteria for rejecting the petition on the grounds that the issues have been the subject of NRC staff review and have been resolved.
2. I think we should strongly consider denying the requested enforcement in the petition since they are not supported by the claims, but take the action to refer the appropriate issues to the plan developed to respond to the EDO dated Jan 3, 2017 (ML16334A188). This actually would be granting the petition, in part.

Joel

**From:** [Whitman, Jennifer](#)  
**To:** [Billerbeck, John](#)  
**Subject:** RE: Westinghouse NSAL-93-013  
**Date:** Tuesday, November 15, 2016 10:27:31 AM

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It's in ADAMS.

NSAL-93-013, G.G. Ament and K.J. Vavrek, Westinghouse ESBU, June 30, 1993, and NSAL-93-013, Supplement 1, J.S. Galembush, Westinghouse ESBU, October 28, 1994 (ML052930330)

NSAL-93-013 is included in ML116342D412 (page 37 of the PDF), which is publicly available.
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**From:** Billerbeck, John  
**Sent:** Tuesday, November 15, 2016 10:27 AM  
**To:** Whitman, Jennifer <Jennifer.Whitman@nrc.gov>  
**Subject:** Westinghouse NSAL-93-013

Jen,

Do you per chance have an e-copy of the subject NSAL? Thanks.

John

**From:** Clark, Theresa  
**Sent:** 12 Sep 2016 11:02:52 -0400  
**To:** Keene, Todd;Wiebe, Joel  
**Subject:** REQUEST: assistance with contacts / Listserv

Hi there – the EDO is finalizing his decision on the Byron/Braidwood backfit appeal, and his decision documents will include a letter to Exelon that will need to be Listserved. Would you guys (or perhaps one of the LAs) be able to help with that? This would likely be tomorrow.

Also, if possible, we would like to get contact phone #s and emails for Bryan Hanson and Brad Fewell. Could you please send me those? Vic would like to have a call with them to communicate the decision when complete.

Thank you!

--

**Theresa Valentine Clark**  
Executive Technical Assistant (Reactors)  
U.S. Nuclear Regulatory Commission  
[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov) | 301-415-4048 | O-16E22

**From:** Roberts, Ashley  
**Sent:** 30 Sep 2016 16:35:03 -0400  
**To:** Clark, Theresa  
**Cc:** Valentine, Nicholee; Wiebe, Joel; Keene, Todd; Garmoe, Alex; Burnell, Scott; Abraham, Susan; Stuchell, Sheldon  
**Subject:** RESPONSE: ACTION: pre-request - cost data for Exelon backfit

Theresa,

Below is the hours information you requested, should you need it. As you noted below, this does not include any management hours, OGC hours, or hours for any staff that did not charge to the specific CACs (like yourself as you mentioned as an ETA).

Backfit preparation for Braidwood and Byron – 1013.6 hours

Review of appeal – 202.2 hours

EDO review of appeal – 370.7 hours

Please let us know if you have questions.

Ashley

***Ashley B. Roberts (Bettis)***

Chief, Financial, Human Capital & Analysis Support Branch

Program Management, Policy, Development, & Analysis

Office of Nuclear Reactor Regulation

Mailstop: O13-H16M

301-415-1567

---

**From:** Abraham, Susan  
**Sent:** Friday, September 16, 2016 9:51 AM  
**To:** Gavrilas, Mirela <[Mirela.Gavrilas@nrc.gov](mailto:Mirela.Gavrilas@nrc.gov)>; Lund, Louise <[Louise.Lund@nrc.gov](mailto:Louise.Lund@nrc.gov)>; Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Evans, Michele <[Michele.Evans@nrc.gov](mailto:Michele.Evans@nrc.gov)>  
**Cc:** Roberts, Ashley <[Ashley.RobertsBettis@nrc.gov](mailto:Ashley.RobertsBettis@nrc.gov)>; Valentine, Nicholee <[Nicholee.Valentine@nrc.gov](mailto:Nicholee.Valentine@nrc.gov)>  
**Subject:** FW: pre-request - cost data for Exelon backfit

For awareness, Susan

---

**From:** Clark, Theresa  
**Sent:** Friday, September 16, 2016 8:58 AM  
**To:** Roberts, Ashley <[Ashley.RobertsBettis@nrc.gov](mailto:Ashley.RobertsBettis@nrc.gov)>; Valentine, Nicholee <[Nicholee.Valentine@nrc.gov](mailto:Nicholee.Valentine@nrc.gov)>  
**Cc:** Wiebe, Joel <[Joel.Wiebe@nrc.gov](mailto:Joel.Wiebe@nrc.gov)>; Keene, Todd <[Todd.Keene@nrc.gov](mailto:Todd.Keene@nrc.gov)>; Garmoe, Alex <[Alex.Garmoe@nrc.gov](mailto:Alex.Garmoe@nrc.gov)>; Burnell, Scott <[Scott.Burnell@nrc.gov](mailto:Scott.Burnell@nrc.gov)>; Abraham, Susan <[Susan.Abraham@nrc.gov](mailto:Susan.Abraham@nrc.gov)>  
**Subject:** pre-request - cost data for Exelon backfit

Ashley/Nikki,

We're working with OPA on some public communications regarding the Exelon backfit appeal decision by the EDO this week. They were hoping to have in their back pocket any information we had on the cost of the agency's activities related to this backfit, the NRR appeal, and the EDO appeal, as well as if they were fee billable.

I think the following are the relevant CACs, though the PMs may know better. I recognize that it will not capture everyone's hours, as managers (and I!) used different CACs, but it should include most staff time.

- **MF3206/7/8/9**, Backfit – licensing basis relis upon relief of water through the pressurizer safety valves for mitigation of...
- **MF7231/2/3/4**, Review of Appeal of Imposition of Backfit Regarding a Condition II Event that Could Cause a More Serious Event (non fee billable)
- **MF8035**, EDO Review of Appeal of Imposition of Backfit Regarding a Condition II Event that Could Cause a More Serious Event

I don't think there is a huge rush to get the information but if you could get started pulling it together that would probably make life easier in the future.

Thanks so much!

--

**Theresa Valentine Clark**

Executive Technical Assistant (Reactors)

U.S. Nuclear Regulatory Commission

[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov) | 301-415-4048 | O-16E22

**From:** McDermott, Brian  
**Sent:** 10 Aug 2016 17:40:59 +0000  
**To:** McDermott, Brian; McGinty, Tim; Lubinski, John; Whitman, Jennifer; Billerbeck, John  
**Subject:** Response to Backfit Panel Findings

POC: Jennifer x 3253



**From:** Dean, Bill  
**Sent:** 21 Nov 2016 21:31:17 +0000  
**To:** Dean, Bill;McDermott, Brian;Lubinski, John;Ross-Lee, MaryJane;McGinty, Tim;Taylor, Robert;Oesterle, Eric;Alley, David;Stuchell, Sheldon;Whitman, Jennifer;Garmoe, Alex  
**Subject:** Response to the EDO's 9/15 Memo Requesting a Plan to Address the NSAL-93-013 Technical Issue and RIS 2005-29  
**Attachments:** EDO 9-15 Memo to NRR.PDF

The attachment is publicly available in ADAMS as ML16246A247.



Requested by Alex Garmoe x 3814

**From:** [Wiebe, Joel](#)  
**To:** [Billerbeck, John](#); [Banic, Merrilee](#); [Sun, Summer](#); [Case, Michael](#); [Figueroa Toledo, Gladys](#); [Kirkwood, Sara](#); [Drzewiecki, Timothy](#); [Beaton, Robert](#); [Borromeo, Joshua](#); [Oesterle, Eric](#)  
**Cc:** [Wrona, David](#)  
**Subject:** Revision to my initial thoughts regarding the petition provided by my e-mail dated January 11, 2017  
**Date:** Wednesday, January 25, 2017 10:55:53 AM

---

I am continuing to go through the petition as well as go through the EDO's letter dated September 15, 2016, and the supporting report dated August 24, 2016.

The petition is for Byron and Braidwood.

The EDO's letter and the supporting Backfit Appeal Review Panel (Panel) report are specifically about Byron and Braidwood. The EDO's letter states:

"I agree with the Panel's assessment that the current licensing basis for Byron and Braidwood complies with the applicable regulations and provides adequate protection of public health and safety."

Based on the EDO's statement and my review of the report from the Panel, it appears that the petition meets the criteria for rejecting Petitions under 10 CFR 2.206, specifically the criterion in MD 8.11, Part III, (C)(2)(b):

The petitioner raises issues that have already been the subject of NRC staff review and evaluation either on that facility, other similar facilities, or on a generic basis, for which a resolution has been achieved, the issues have been resolved, and the resolution is applicable to the facility in question. This would include requests to reconsider or reopen a previous enforcement action (including a decision not to initiate an enforcement action) or a director's decision. These requests will not be treated as a 2.206 petition unless they present significant new information.

In this case the petition essentially requests the NRC to reopen the backfit decision.

As I see it, the issues that have been resolved for Braidwood and Byron in the Panel's report include:

**PSV Failure** – Panel Report, Section 4.2 – “The Panel concluded that in 2001 and 2004 and at present, the known and established standard of the Commission is that the failures of PSVs need not be assumed to occur following water discharge if the likelihood is sufficiently small, based on well-informed staff engineering judgment. The Commission has not established a more detailed or prescriptive standard.

**Event Escalation** – Panel Report, Section 5 – “. . . in the absence of a PSV failure to reseal, the Panel concluded that the concerns articulated by the NRC staff in the Backfit SE related to event classification, event escalation, and compliance with 10 CFR 50.34(b) and GDCs 15, 21, and 29 are no longer at issue.

**Event Classification** - Panel Report, Section 5 – “. . . in the absence of a PSV failure to reseat, the Panel concluded that the concerns articulated by the NRC staff in the Backfit SE related to event classification, event escalation, and compliance with 10 CFR 50.34(b) and GDCs 15, 21, and 29 are no longer at issue.

**Compliance with Regulations** - Panel Report, Section 5 – “. . . in the absence of a PSV failure to reseat, the Panel concluded that the concerns articulated by the NRC staff in the Backfit SE related to event classification, event escalation, and compliance with 10 CFR 50.34(b) and GDCs 15, 21, and 29 are no longer at issue.

**Adequate Protection** – Panel Report, Section 4.4 – “. . . the Panel concluded that the current licensing basis for Byron and Braidwood complies with the applicable regulations and provides adequate protection of the public health and safety.

Based on the above, I see the **PRB’s primary task will be to identify any significant new information** (in the petition as supplemented by the petitioners remarks on February 1, 2017) that would invalidate the issue resolution as presented in the Backfit Appeal Review Panel Report.

Joel

---

**From:** Wiebe, Joel

**Sent:** Wednesday, January 11, 2017 4:19 PM

**To:** Billerbeck, John <John.Billerbeck@nrc.gov>; Banic, Merrilee <Merrilee.Banic@nrc.gov>; Sun, Summer <Summer.Sun@nrc.gov>; Case, Michael <Michael.Case@nrc.gov>; Figueroa Toledo, Gladys <Gladys.Figueroa@nrc.gov>; Kirkwood, Sara <Sara.Kirkwood@nrc.gov>; Drzewiecki, Timothy <Timothy.Drzewiecki@nrc.gov>

**Subject:** Miranda 2.206 Petition

Attached is my first screening of the items in the petition.

Please provide comments or markups by 1/19.

In addition to the attached my thoughts are that:

1. Since the issues involved are not resolved, but under review at the direction of the EDO (ML16246A247), we don’t meet the criteria for rejecting the petition on the grounds that the issues have been the subject of NRC staff review and have been resolved.
2. I think we should strongly consider denying the requested enforcement in the petition since they are not supported by the claims, but take the action to refer the appropriate issues to the plan developed to respond to the EDO dated Jan 3, 2017 (ML16334A188). This actually would be granting the petition, in part.

Joel

From: [Keene, Todd](#)  
To: [Whitman, Jennifer](#); [Farnan, Michael](#); [Wolfgang, Robert](#)  
Cc: [Oesterle, Eric](#); [Alley, David](#)  
Subject: Supporting Documents from the Byron and Braidwood Backfit appeal and RIS 2005-29  
Date: Friday, October 07, 2016 3:11:44 PM  
Attachments: [NEI Letter to EDO - June 16 2016.pdf](#)

The attachment is publicly available in ADAMS as ML16208A008.
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This is a list of documents and ADAMS packages that may be useful as this issue is being addressed.

[Letter - EDO to Bill Dean](#)

[ADAMS Package – EDO Letter to NEI](#)

[ADAMS Package – EDO Backfit Appeal Review Panel Findings](#)

[RIS 2005-29](#)

[Draft RIS 2005-29 Rev 1](#)

Todd

Todd Keene  
Project Manager  
NRR/DPR/PGCB  
(301)415-1994

**From:** Stuchell, Sheldon  
**Sent:** 26 Sep 2016 13:57:32 -0400  
**To:** Whitman, Jennifer;Garmoe, Alex;Woodyatt, Diana  
**Subject:** The industry view!

## NRC Grants Exelon's Backfit Appeal

- NRC staff action lacked “appropriate basis”
- Focus sharpened on actions that will demonstrably enhance safety
- NRC looking at broader issues of regulatory predictability



Sept. 22, 2016—In a win for good government, the U.S. Nuclear Regulatory Commission’s highest-ranking career official formally decided last week that the NRC staff’s new interpretation of an existing regulatory requirement did not meet the standard to impose changes on two nuclear plants.

The [Sept. 15 decision by NRC Executive Director of Operations Victor McCree](#) grants an appeal by Exelon Corp. challenging a change to an NRC staff position that had previously credited the performance of certain safety valves at the company’s Byron and Braidwood power plants in Illinois.

The NRC staff sought to impose changes to the plants using the “compliance exception” to the agency’s backfit rule. The rule, [10 CFR 50.109\(a\)\(1\)](#), requires the NRC to demonstrate that any new or amended requirement or interpretation will yield a substantial safety benefit and be cost-justified. McCree informed the [Nuclear Energy Institute](#) and [Exelon](#) on Sept. 15 that the staff “did not provide an appropriate basis” for applying the backfit rule’s compliance exception in this case.

“The industry is very pleased, as we strongly supported Exelon's backfitting appeal,” NEI Vice President, General Counsel and Secretary Ellen Ginsberg said. NEI submitted letters last [January](#) and [June](#) encouraging the agency to grant the appeal and articulating broader policy concerns with the staff’s use of the compliance exception.

“Adherence to the backfit rule is necessary to ensure that agency and licensee resources are devoted to regulatory initiatives that will yield demonstrable safety and security benefits. Properly applying the backfit rule provides a basis for the agency's regulatory framework to evolve, but in a transparent, predictable and cost-effective manner,” Ginsberg added.

The nuclear energy industry has long expressed concern with the NRC’s failure to identify changes in staff position or new interpretations as backfits and, as in the present case, the agency’s overly broad interpretation of the “compliance exception.” The so-called compliance exception is intended for situations in which “the licensee has failed to meet known and established standards of the commission because of omission or mistake of fact,” as the NRC stated in a document published with its final 1985 backfit rule.

Significantly, the agency also has stated that “new or modified interpretations of what constitutes compliance would not fall within the exception and would require a backfit analysis” to demonstrate that the change is a cost-justified, substantial safety enhancement.

In the Exelon case, McCree agreed with the position taken by a backfit appeal review panel that he had appointed. The appeal panel found that the NRC’s earlier approvals of Exelon’s approach in “2001 and 2004 license amendments were based on reasonable and well-informed engineering judgment of the NRC staff, not a mistake.”

In endorsing the appeal panel findings, McCree stated that while the “new and different staff views on how to address pressurizer safety valve performance following water discharge ... are conservative approaches that could provide additional safety margin, they do not provide an appropriate basis for a compliance backfit.”

McCree said he has also asked the NRC Committee to Review Generic Requirements to address broader issues regarding the backfit rule and has shared the backfit review panel’s findings with the committee.

[McCree’s decision](#) and the review panel’s [memorandum](#) and [report](#) on its findings are available on the NRC’s ADAMS document retrieval system.

**From:** [Oesterle, Eric](#)  
**To:** [Bonner, Eric](#); [Alley, David](#); [Taylor, Robert](#)  
**Cc:** [Whitman, Jennifer](#)  
**Subject:** Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Date:** Wednesday, September 14, 2016 6:13:00 AM  
**Attachments:** [By Br Backfit Appeal Responses - Merged Draft.docx](#)  
[image001.png](#)  
**Importance:** High  
**Sensitivity:** Confidential

---

Gentlemen,

Jen and I worked on the attached proposed revisions to the Byron/Braidwood Backfit Appeal Decision last night and have aligned on language that is ready for your review (see attached). The revised responses include 2a, 2b, 2c, 2d, 2e, and 2f. We did not see the need to provide any revisions to responses 1 and 3.

*Eric R. Oesterle*

Reactor Systems Branch Chief

NRR/DSS/SRXB

301-415-1014





Page 430 of 582

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act

(b)(5)

**From:** [Benner, Eric](#)  
**To:** [Oesterle, Eric](#); [Alley, David](#); [Taylor, Robert](#)  
**Cc:** [Whitman, Jennifer](#)  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Date:** Wednesday, September 14, 2016 7:18:41 AM  
**Attachments:** [image001.png](#)  
**Sensitivity:** Confidential

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Thanks! I'll review later this morning.

**From:** Oesterle, Eric  
**Sent:** Wednesday, September 14, 2016 6:13 AM  
**To:** Benner, Eric ; Alley, David ; Taylor, Robert  
**Cc:** Whitman, Jennifer  
**Subject:** Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Importance:** High  
**Sensitivity:** Confidential

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*Eric R. Oesterle*

Reactor Systems Branch Chief  
NRR/DSS/SRXB  
301-415-1014



**From:** [Alley, David](#)  
**To:** [Oesterle, Eric](#); [Benner, Eric](#); [Taylor, Robert](#)  
**Cc:** [Whitman, Jennifer](#)  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Date:** Wednesday, September 14, 2016 8:13:23 AM  
**Attachments:** [By Br Backfit Appeal Responses - Merged Draft DA.docx](#)  
[image001.png](#)  
**Sensitivity:** Confidential

---

I twiddled a bit with many of the answers to try to make them read a bit better. I did more on 2b. I didn't understand the original response and I really didn't understand our rewrite. Maybe it is me who is missing the point. In any case I reworked the answer along the theme that if NRR could interpret it one way and the Panel could interpret it another, it did not support the concept of the existence of a known position.

I have a bunch of meetings today. If I don't answer my office phone, try my cell 240-344-8327

Dave

**From:** Oesterle, Eric  
**Sent:** Wednesday, September 14, 2016 6:13 AM  
**To:** Benner, Eric ; Alley, David ; Taylor, Robert  
**Cc:** Whitman, Jennifer  
**Subject:** Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Importance:** High  
**Sensitivity:** Confidential

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*Eric R. Oesterle*

Reactor Systems Branch Chief

NRR/DSS/SRXB

301-415-1014



Page 434 of 582

Withheld pursuant to exemption

(b)(5)

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(b)(5)



**From:** Oesterle, Eric  
**To:** Whitman, Jennifer; Alley, David; Benner, Eric; Taylor, Robert  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Date:** Wednesday, September 14, 2016 8:38:00 AM  
**Attachments:** [image001.png](#)  
**Sensitivity:** Confidential

---

Jen,

I agree with your assessment of Dave's edits.

Eric

**From:** Whitman, Jennifer  
**Sent:** Wednesday, September 14, 2016 8:18 AM  
**To:** Alley, David ; Oesterle, Eric ; Benner, Eric ; Taylor, Robert  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Sensitivity:** Confidential

Dave,

I think all of your edits, particularly the re-write of 2b make the document better.

Jen

**From:** Alley, David  
**Sent:** Wednesday, September 14, 2016 8:13 AM  
**To:** Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>  
**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Sensitivity:** Confidential

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Dave

**From:** Oesterle, Eric  
**Sent:** Wednesday, September 14, 2016 6:13 AM  
**To:** Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>  
**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>  
**Subject:** Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Importance:** High  
**Sensitivity:** Confidential

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*Eric R. Oesterle*  
Reactor Systems Branch Chief  
NRR/DSS/SRXB  
301-415-1014





**From:** Benner, Eric  
**To:** Alley, David; Oesterle, Eric; Taylor, Robert  
**Cc:** Whitman, Jennifer  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Date:** Wednesday, September 14, 2016 9:59:49 AM  
**Attachments:** [By Br Backfit Appeal Responses - Merged Draft DA & EB COMPARE.docx](#)  
[By Br Backfit Appeal Responses - Merged Draft DA & EB.docx](#)  
[image001.png](#)  
**Sensitivity:** Confidential

---

Great job! Attached is both a clean version and compare version with my edits for your consideration.

Dave, have you pulled together key messages for us to transmit to staff when this gets issued? I will want to provide them to Vic when we provide our proposed responses so he can consider them for a message to staff.

**From:** Alley, David  
**Sent:** Wednesday, September 14, 2016 8:13 AM  
**To:** Oesterle, Eric ; Benner, Eric ; Taylor, Robert  
**Cc:** Whitman, Jennifer  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Sensitivity:** Confidential

(b)(5)

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(b)(6)

Dave

**From:** Oesterle, Eric  
**Sent:** Wednesday, September 14, 2016 6:13 AM  
**To:** Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>  
**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>  
**Subject:** Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Importance:** High  
**Sensitivity:** Confidential

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*Eric R. Oesterle*

Reactor Systems Branch Chief  
NRR/DSS/SRXB  
301-415-1014



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Withheld pursuant to exemption

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Page 442 of 582

Withheld pursuant to exemption

(b)(5)

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Page 443 of 582

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act

**From:** Oesterle, Eric  
**To:** Benner, Eric; Alley, David; Taylor, Robert  
**Cc:** Whitman, Jennifer  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Date:** Wednesday, September 14, 2016 10:39:00 AM  
**Attachments:** [By Br Backfit Appeal Responses - Melded Draft DA EB ERO.docx](#)  
[image001.png](#)  
**Importance:** High  
**Sensitivity:** Confidential

---

I believe we have achieved alignment! I few minor edits attached.  
Eric

**From:** Benner, Eric  
**Sent:** Wednesday, September 14, 2016 10:00 AM  
**To:** Alley, David ; Oesterle, Eric ; Taylor, Robert  
**Cc:** Whitman, Jennifer  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Sensitivity:** Confidential

Great job! Attached is both a clean version and compare version with my edits for your consideration.

Dave, have you pulled together key messages for us to tranmit to staff when this gets issued? I will want to provide them to Vic when we provide our proposed responses fso he can consider them for a message to staff.

**From:** Alley, David  
**Sent:** Wednesday, September 14, 2016 8:13 AM  
**To:** Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>  
**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Sensitivity:** Confidential

(b)(5)

I have a bunch of meetings today. If I don't answer my office phone, try my cell (b)(6)

(b)(6)

Dave

**From:** Oesterle, Eric  
**Sent:** Wednesday, September 14, 2016 6:13 AM  
**To:** Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>  
**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>  
**Subject:** Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Importance:** High  
**Sensitivity:** Confidential

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attached). The revised responses include 2a, 2b, 2c, 2d, 2e, and 2f. We did not see the need to provide any revisions to responses 1 and 3.

*Eric R. Oesterle*

Reactor Systems Branch Chief

NRR/DSS/SRXB

301-415-1014





**From:** [Whitman, Jennifer](#)  
**To:** [Benner, Eric](#); [Oesterle, Eric](#); [Alley, David](#); [Taylor, Robert](#)  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Date:** Wednesday, September 14, 2016 11:37:06 AM  
**Attachments:** [image001.png](#)  
**Sensitivity:** Confidential

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I am aligned.

**From:** Benner, Eric  
**Sent:** Wednesday, September 14, 2016 11:35 AM  
**To:** Oesterle, Eric ; Alley, David ; Taylor, Robert  
**Cc:** Whitman, Jennifer  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Importance:** High  
**Sensitivity:** Confidential

So how about the following for key messages:

- (b)(5)
- 
- 

If we are in alignment, I'll send to Tim and John (and cc you all) for their review before we discuss with Bill.

**From:** Oesterle, Eric  
**Sent:** Wednesday, September 14, 2016 10:48 AM  
**To:** Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>  
**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Sensitivity:** Confidential

(b)(5)

Eric

**From:** Alley, David  
**Sent:** Wednesday, September 14, 2016 10:30 AM  
**To:** Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>  
**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>

**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision

**Sensitivity:** Confidential

Maybe there are three key messages: (b)(5)

(b)(5)

Thoughts?

Dave

**From:** Benner, Eric

**Sent:** Wednesday, September 14, 2016 10:00 AM

**To:** Alley, David <David.Alley@nrc.gov>; Oesterle, Eric <Eric.Oesterle@nrc.gov>; Taylor, Robert <Robert.Taylor@nrc.gov>

**Cc:** Whitman, Jennifer <Jennifer.Whitman@nrc.gov>

**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision

**Sensitivity:** Confidential

Great job! Attached is both a clean version and compare version with my edits for your consideration.

Dave, have you pulled together key messages for us to transmit to staff when this gets issued? I will want to provide them to Vic when we provide our proposed responses so he can consider them for a message to staff.

**From:** Alley, David

**Sent:** Wednesday, September 14, 2016 8:13 AM

**To:** Oesterle, Eric <Eric.Oesterle@nrc.gov>; Benner, Eric <Eric.Benner@nrc.gov>; Taylor, Robert <Robert.Taylor@nrc.gov>

**Cc:** Whitman, Jennifer <Jennifer.Whitman@nrc.gov>

**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision

**Sensitivity:** Confidential

(b)(5)

I have a bunch of meetings today. If I don't answer my office phone, try my cell (b)(6)

(b)(6)

Dave

**From:** Oesterle, Eric

**Sent:** Wednesday, September 14, 2016 6:13 AM

**To:** Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>

**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>

**Subject:** Revised Responses for Byron/Braidwood Backfit Appeal Decision

**Importance:** High

**Sensitivity:** Confidential

Gentlemen,

Jen and I worked on the attached proposed revisions to the Byron/Braidwood Backfit Appeal Decision last night and have aligned on language that is ready for your review (see attached). The revised responses include 2a, 2b, 2c, 2d, 2e, and 2f. We did not see the need to provide any revisions to responses 1 and 3.

*Eric R. Oesterle*

Reactor Systems Branch Chief

NRR/DSS/SRXB

301-415-1014



**From:** Benner, Eric  
**To:** Oesterle, Eric; Alley, David; Taylor, Robert  
**Cc:** Whitman, Jennifer  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Date:** Wednesday, September 14, 2016 11:51:51 AM  
**Attachments:** [image001.png](#)  
**Sensitivity:** Confidential

---

OK, I'm going to send up and we can still refine as necessary.

**From:** Oesterle, Eric  
**Sent:** Wednesday, September 14, 2016 11:43 AM  
**To:** Benner, Eric ; Alley, David ; Taylor, Robert  
**Cc:** Whitman, Jennifer  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Sensitivity:** Confidential

I'm in alignment also.

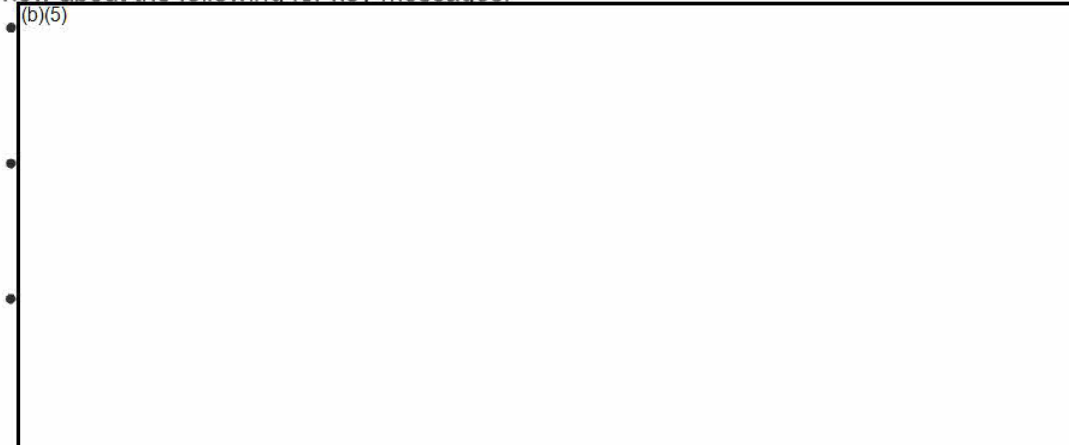
*Eric R. Oesterle*

Reactor Systems Branch Chief  
NRR/DSS/SRXB  
301-415-1014



**From:** Benner, Eric  
**Sent:** Wednesday, September 14, 2016 11:35 AM  
**To:** Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>  
**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>  
**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision  
**Importance:** High  
**Sensitivity:** Confidential

So how about the following for key messages:



If we are in alignment, I'll send to Tim and John (and cc you all) for their review before we

discuss with Bill.

**From:** Oesterle, Eric

**Sent:** Wednesday, September 14, 2016 10:48 AM

**To:** Alley, David <David.Alley@nrc.gov>; Benner, Eric <Eric.Benner@nrc.gov>; Taylor, Robert <Robert.Taylor@nrc.gov>

**Cc:** Whitman, Jennifer <Jennifer.Whitman@nrc.gov>

**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision

**Sensitivity:** Confidential

(b)(5)

Eric

**From:** Alley, David

**Sent:** Wednesday, September 14, 2016 10:30 AM

**To:** Benner, Eric <Eric.Benner@nrc.gov>; Oesterle, Eric <Eric.Oesterle@nrc.gov>; Taylor, Robert <Robert.Taylor@nrc.gov>

**Cc:** Whitman, Jennifer <Jennifer.Whitman@nrc.gov>

**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision

**Sensitivity:** Confidential

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(b)(5)

Thoughts?

Dave

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**Sent:** Wednesday, September 14, 2016 10:00 AM

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**Cc:** Whitman, Jennifer <Jennifer.Whitman@nrc.gov>

**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision

**Sensitivity:** Confidential

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Dave, have you pulled together key messages for us to transmit to staff when this gets issued? I will want to provide them to Vic when we provide our proposed responses so he can consider them for a message to staff.

**From:** Alley, David

**Sent:** Wednesday, September 14, 2016 8:13 AM

**To:** Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>

**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>

**Subject:** RE: Revised Responses for Byron/Braidwood Backfit Appeal Decision

**Sensitivity:** Confidential

(b)(5)

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(b)(6)

Dave

**From:** Oesterle, Eric

**Sent:** Wednesday, September 14, 2016 6:13 AM

**To:** Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Alley, David <[David.Alley@nrc.gov](mailto:David.Alley@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>

**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>

**Subject:** Revised Responses for Byron/Braidwood Backfit Appeal Decision

**Importance:** High

**Sensitivity:** Confidential

Gentlemen,

Jen and I worked on the attached proposed revisions to the Byron/Braidwood Backfit Appeal Decision last night and have aligned on language that is ready for your review (see attached). The revised responses include 2a, 2b, 2c, 2d, 2e, and 2f. We did not see the need to provide any revisions to responses 1 and 3.

*Eric R. Oesterle*

Reactor Systems Branch Chief

NRR/DSS/SRXB

301-415-1014



**From:** Oesterle, Eric  
**To:** Taylor, Robert  
**Cc:** Whitman, Jennifer; McGinty, Tim  
**Subject:** RE: B/B Backfit DEDR Briefing  
**Date:** Monday, May 02, 2016 7:05:00 AM  
**Attachments:** RE Question about upcoming briefing of Mike Johnson on Exelon backfit appeal.mso

The attachment appears later in this package.

Rob,

I followed up with DPR and they are leading it. Will just be a one-pager and DSS will be there to support (i.e., answer any technical questions). (b)(5)

(b)(5) and DSS role will be limited to just answering technical questions, if any. I will get with Jennifer first thing tomorrow to let her know of support needed.

Eric

**From:** Taylor, Robert  
**Sent:** Monday, May 02, 2016 7:02 AM  
**To:** Oesterle, Eric  
**Cc:** Whitman, Jennifer ; McGinty, Tim  
**Subject:** B/B Backfit DEDR Briefing

Eric,

Do we have any additional insights on this briefing? I happened to see it scheduled on McDermott's calendar for tomorrow at 4:30. Who is leading it and what role, if any, does DSS have?

Rob

**From:** [Benner, Eric](#)  
**To:** [Dean, Bill](#); [McDermott, Brian](#); [Lubinski, John](#); [McGinty, Tim](#); [Taylor, Robert](#); [Ross-Lee, MaryJane](#); [Oesterle, Eric](#); [Whitman, Jennifer](#); [Alley, David](#)  
**Cc:** [Benner, Eric](#)  
**Subject:** Revised Byron-Braidwood Document Attached  
**Date:** Wednesday, September 14, 2016 4:22:49 PM  
**Attachments:** [By\\_Br Backit Appeal Responses.docx](#)  
**Importance:** High

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## NRR Feedback on Byron-Braidwood Backfit Appeal

(b)(5)



Page 455 of 582

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act

**From:** [Benner, Eric](#)  
**To:** [McDermott, Brian](#); [Dean, Bill](#); [Lubinski, John](#); [McGinty, Tim](#); [Taylor, Robert](#); [Ross-Lee, MaryJane](#); [Oesterle, Eric](#); [Whitman, Jennifer](#); [Alley, David](#)  
**Subject:** RE: Revised Byron-Braidwood Document Attached  
**Date:** Wednesday, September 14, 2016 8:50:18 PM  
**Attachments:** [By Br Backit Appeal Responses.docx](#)

---

Revised attached.

**From:** McDermott, Brian  
**Sent:** Wednesday, September 14, 2016 5:07 PM  
**To:** Benner, Eric ; Dean, Bill ; Lubinski, John ; McGinty, Tim ; Taylor, Robert ; Ross-Lee, MaryJane ; Oesterle, Eric ; Whitman, Jennifer ; Alley, David  
**Cc:** Benner, Eric  
**Subject:** Re: Revised Byron-Braidwood Document Attached

Please take another read of the first bullet in the communication messages. Seems to be missing the word "the" and ends with a double negative. Otherwise, the specific responses seem to reflect our discussions.

Thank you,  
Brian

On: 14 September 2016 16:22, "Benner, Eric" <[Eric.Benner@iuc.gov](mailto:Eric.Benner@iuc.gov)> wrote:

## NRR Feedback on Byron-Braidwood Backfit Appeal

(b)(5)



Page 458 of 582

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act

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**From:** Billerbeck, John  
**Sent:** Tuesday, August 02, 2016 8:44 AM  
**To:** Alley, David; Lubinski, John  
**Subject:** RE: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OUO - Pre-decisional - Internal NRC Use Only~~

The panel's position seems to be that past staff decisions regarding adequate performance of pressurizer safeties to pass water during mass addition events (I'll stay away from 'qualified' terminology here) were based on ad hoc EPRI testing and engineering judgement and that raising the ASME code compliance argument at this time is therefore a new or modified interpretation of what constitutes compliance. This, however, ignores the fact that the regulations required ASME code compliance long before the issue was raised in the various LARs, RIS', etc., and further, the regulations require a specific process to be followed in order to deviate from the code. Are the regulations not a staff position? It is a mystery to me that the code compliance/deviation argument was apparently never raised during the evolution of this issue over the several decades that it was being considered.

---

**From:** Alley, David  
**Sent:** Monday, August 01, 2016 10:07 PM  
**To:** Lubinski, John <John.Lubinski@nrc.gov>; Billerbeck, John <John.Billerbeck@nrc.gov>  
**Subject:** RE: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OUO - Pre-decisional - Internal NRC Use Only~~

John Lubinski,  
I have not read this thoroughly but it appears at the panel has failed to address the primary issue – the need to qualify the valves for water discharge. In the absence of specific language to the effect that the NRC has evaluated the concept that the regulatory requirement to qualify the valves is unnecessary and the NRC changed the regulation, the regulatory requirement to qualify the valves for water discharge appears to take precedence over any NRC guidance.

John Billerbeck,  
Please discuss with John Lubinski.

Dave

---

**From:** Lubinski, John  
**Sent:** Monday, August 01, 2016 6:02 PM  
**To:** Alley, David <David.Alley@nrc.gov>; Billerbeck, John <John.Billerbeck@nrc.gov>  
**Subject:** FW: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OUO - Pre-decisional - Internal NRC Use Only~~

fyi

---

**From:** Holahan, Gary  
**Sent:** Monday, August 01, 2016 5:57 PM  
**To:** Dean, Bill <Bill.Dean@nrc.gov>; Lubinski, John <John.Lubinski@nrc.gov>; McGinty, Tim <Tim.McGinty@nrc.gov>; Akstulewicz, Frank <Frank.Akstulewicz@nrc.gov>; Doane, Margaret <Margaret.Doane@nrc.gov>; Mcdermott, Brian <Brian.McDermott@nrc.gov>; Bailey, Marissa <Marissa.Bailey@nrc.gov>  
**Cc:** Hackett, Edwin <Edwin.Hackett@nrc.gov>; West, Steven <Steven.West@nrc.gov>; Clark, Theresa <Theresa.Clark@nrc.gov>; Scarbrough, Thomas <Thomas.Scarbrough@nrc.gov>; Spencer, Michael

<Michael.Spencer@nrc.gov>; Evans, Michele <Michele.Evans@nrc.gov>; Williamson, Edward <Edward.Williamson@nrc.gov>; Mizuno, Geary <Geary.Mizuno@nrc.gov>; Shuaibi, Mohammed <Mohammed.Shuaibi@nrc.gov>; Mccree, Victor <Victor.McCree@nrc.gov>; Johnson, Michael <Michael.Johnson@nrc.gov>; Tracy, Glenn <Glenn.Tracy@nrc.gov>; Gody, Tony <Tony.Gody@nrc.gov>

**Subject:** Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OOO-Pre-decisional-Internal NRC Use Only~~

All,

Consistent with the plan we presented last week, attached are the preliminary findings of the Exelon Backfit Appeal Panel. The Summary from the Preliminary Findings is reproduced below. The preliminary findings were discussed briefly with the OEDO for their awareness.

As indicated in our completion plan, the panel would appreciate any comments on, or additions to: the documents cited; their interpretation and intent; or the understanding of the backfit rule compliance exception. Comments would be appreciated by August 9, 2016, but can be accepted as last as August 15, 2016. The panel will also be available for discussion any time before August 15, 2016.

Comments will be reflected or acknowledged in the panel's final report and recommendations to the EDO.

The Preliminary Findings document attached is an internal, pre-decisional document at this time. Both Exelon and NEI declined offers for a public meeting on this issue.

Gary ... for the panel

- Steve West
- Tom Scarborough
- Michael Spencer
- Theresa Clark

#### **In summary:**

The NRR 2015 compliance backfit finding (October 9, 2015 letter to Exelon) is predicated on the following positions (emphases added):

- "water relief through a valve that is not qualified for water relief will cause that valve to stick in its fully open position"
- "the licensee ... has not applied the single-failure assumption"
- "nor have they provided ASME water qualification documentation for the PSVs ... the ASME...original Overpressure Protection Report ... inservice test history... including both water and steam tests"

However, none of these positions were "known and established standards of the Commission" in 2001 or 2004 for determining when it was appropriate to assume a failure of PSVs to reseal. In fact, they were not "known and established standards of the Commission" in 2005 or 2006 or 2007.

Moreover, two of these positions do not appear to be "established standards of the Commission" at present, since the call for use of the single failure criterion first appears in proposed 2015 draft Revision 1 to RIS 2005-029, and the call for ASME certification first appears in the Exelon compliance backfit. The panel concludes that the standard in place in 2001 and 2004 and at present is simply that the probability of failure of a Pressurizer Safety Valve (PSV) is sufficiently small, based on well-informed staff engineering judgement, and that the use of the word "qualified" or "qualification" implied only a general demonstration of capability, such as in the EPRI testing done in response to TMI Action Plan Item II.D.1.

The panel concludes that, in 2001 and 2004, the staff was not misinformed nor did it "err" in approving the Byron and Braidwood power uprates ... nor was it in error in approving other similar cases (e.g. Beaver Valley

in 2006). The 2015 staff positions taken to support the compliance backfit finding represent new and different staff views on how to address potential PSV failures following water discharge. Although they represent well-intentioned staff positions that could provide additional safety margin, they do not provide a basis for a compliance backfit.

The panel's findings therefore support the Exelon backfit appeal.

In addition to the specific finding relating to the backfit appeal, the panel believes it is important to acknowledge that water discharge through a PSV not specifically designed for such service is undesirable and should be minimized or avoided as a matter of conservative engineering and prudent operations. The panel concludes this while fully aware that the event sequence being considered appears to be of little safety significance (the panel has requested RES analysis to confirm this belief). Operator training and emergency procedures to terminate the event before pressurizer filling, as well as the use of power-operated relief valves rather than relying solely on PSVs, are clearly preferred, whether they form the facilities' UFSAR licensing basis or not.

The panel has not (at this time) formed any views on whether a backfit on this topic could be justified as "adequate protection" or "cost justified"; or whether a "forward-fit" staff position is appropriate or not.



**From:** [Oesterle, Eric](#)  
**To:** [Whitman, Jennifer](#); [Hickey, James](#); [Borromeo, Joshua](#)  
**Subject:** FW: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OUO- Pre-decisional- Internal NRC Use Only~~  
**Date:** Tuesday, August 02, 2016 10:07:00 AM  
**Attachments:** [SHORT Preliminary Findings July 29 3pm.docx](#)

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Now that the EDO's Backfit Appeal Panel has reached a preliminary decision on the Exelon Appeal. I wanted to get any feedback that you might have on their preliminary decision. Is there anything you feel needs clarification, anything you believe is incorrect, anything they missed, or has you feeling somewhat disappointed, etc. Let me know so we can provide some feedback to Tim as we start to move forward following the decision. Thanks!

Eric

**From:** Mcginty, Tim  
**Sent:** Monday, August 01, 2016 6:14 PM  
**To:** [Whitman, Jennifer](#); [Oesterle, Eric](#); [Hickey, James](#); [Taylor, Robert](#)  
**Subject:** FW: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OUO- Pre-decisional- Internal NRC Use Only~~

Team – please evaluate per the panel's request for any comments or clarifications, etc. Note that any comments provided will be reflected in the final recommendations, and ultimately I would anticipate being made publically available. I would think that we will want to meet on this in the near future.

Please also take your usual care to treat the information as OUO pre-decisional and internal use only. Thanks, Tim

**From:** Holahan, Gary  
**Sent:** Monday, August 01, 2016 5:57 PM  
**To:** [Dean, Bill](#) <[Bill.Dean@nrc.gov](mailto:Bill.Dean@nrc.gov)>; [Lubinski, John](#) <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; [Mcginty, Tim](#) <[Tim.McGinty@nrc.gov](mailto:Tim.McGinty@nrc.gov)>; [Akstulewicz, Frank](#) <[Frank.Akstulewicz@nrc.gov](mailto:Frank.Akstulewicz@nrc.gov)>; [Doane, Margaret](#) <[Margaret.Doane@nrc.gov](mailto:Margaret.Doane@nrc.gov)>; [Mcdermott, Brian](#) <[Brian.McDermott@nrc.gov](mailto:Brian.McDermott@nrc.gov)>; [Bailey, Marissa](#) <[Marissa.Bailey@nrc.gov](mailto:Marissa.Bailey@nrc.gov)>  
**Cc:** [Hackett, Edwin](#) <[Edwin.Hackett@nrc.gov](mailto:Edwin.Hackett@nrc.gov)>; [West, Steven](#) <[Steven.West@nrc.gov](mailto:Steven.West@nrc.gov)>; [Clark, Theresa](#) <[Theresa.Clark@nrc.gov](mailto:Theresa.Clark@nrc.gov)>; [Scarborough, Thomas](#) <[Thomas.Scarborough@nrc.gov](mailto:Thomas.Scarborough@nrc.gov)>; [Spencer, Michael](#) <[Michael.Spencer@nrc.gov](mailto:Michael.Spencer@nrc.gov)>; [Evans, Michele](#) <[Michele.Evans@nrc.gov](mailto:Michele.Evans@nrc.gov)>; [Williamson, Edward](#) <[Edward.Williamson@nrc.gov](mailto:Edward.Williamson@nrc.gov)>; [Mizuno, Geary](#) <[Geary.Mizuno@nrc.gov](mailto:Geary.Mizuno@nrc.gov)>; [Shuaibi, Mohammed](#) <[Mohammed.Shuaibi@nrc.gov](mailto:Mohammed.Shuaibi@nrc.gov)>; [McCree, Victor](#) <[Victor.McCree@nrc.gov](mailto:Victor.McCree@nrc.gov)>; [Johnson, Michael](#) <[Michael.Johnson@nrc.gov](mailto:Michael.Johnson@nrc.gov)>; [Tracy, Glenn](#) <[Glenn.Tracy@nrc.gov](mailto:Glenn.Tracy@nrc.gov)>; [Gody, Tony](#) <[Tony.Gody@nrc.gov](mailto:Tony.Gody@nrc.gov)>  
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The panel's findings therefore support the Exelon backfit appeal.

In addition to the specific finding relating to the backfit appeal, the panel believes it is important to acknowledge that water discharge through a PSV not specifically designed for such service is undesirable and should be minimized or avoided as a matter of conservative engineering and prudent operations. The panel concludes this while fully aware that the event sequence being considered appears to be of little safety significance (the panel has requested RES analysis to confirm this belief). Operator training and emergency procedures to terminate the event before pressurizer filling, as well as the use of power-operated relief valves rather than relying solely on PSVs, are clearly preferred, whether they form the facilities' UFSAR licensing basis or not.

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be justified as "adequate protection" or "cost justified"; or whether a "forward-fit" staff position is appropriate or not.

July 29, 2016  
3pm version

## **Exelon Backfit Appeal Panel Preliminary Findings**

The compliance exception to the Backfit Rule is intended to address failures to meet known and established Commission standards because of omission or mistake of fact. New or modified interpretations of what constitutes compliance do not fall within the exception. The panel concludes that in 2001 and 2004 and at present, the known and established standard of the Commission is that the probability of failure of pressurizer safety valves (PSVs) following water discharge during Inadvertent Operation of Emergency Core Cooling System (ECCS) should be sufficiently small based on well-informed staff engineering judgment. During the Exelon power uprate review in 2001 and the review of a later valve setpoint amendment in 2004, the staff exercised reasonable and well-informed engineering judgment when concluding that the PSVs were unlikely to stick open (i.e., fail to reseal). The backfit appeal panel has preliminarily concluded that the position on valve qualification in the 2015 backfit is a new or modified interpretation of what constitutes compliance.

In the absence of a PSV failure to reseal, the concerns articulated in the backfit related to event classification, event escalation, and compliance with 10 CFR 50.34(b) and General Design Criteria 15, 21, and 29 are no longer at issue.

The panel findings support the Exelon appeal.

The panel's finding relative to treatment of PSV failure potential derives from the following:

- **Treatment of single failures of passive components in fluid systems per 10 CFR Part 50, Appendix A, Footnote 2**
  - 1977 SECY-77-439 (on additional passive failures): “[I]t has been judged in most instances that the probability of most types of passive failures in fluid systems is sufficiently small that they need not be assumed in addition to the initiating failure in application of the Single Failure Criterion ... .”
- **Resolution of 1979 TMI Action Plan item II.D.1, “Performance Testing of BWR and PWR Relief and Safety Valves”**
  - 1982 Westinghouse Owners Group report (WCAP-10105): relied on the EPRI testing program to assert the acceptability of PSVs and power-operated relief valves (PORVs) in Westinghouse-designed PWRs.
  - 1988 Letter from L. N. Olshan (NRC) to H. E. Bliss (ComEd), “NUREG-0737, Item II.D.1, Performance Testing on Relief and Safety Valves for Byron Station, Units 1 and 2,” and a 1990 letter from S. Sands (NRC) to T. Kovach (ComEd), “NUREG-0737, Item II.D.1, Performance Testing on Relief and Safety Valves for Braidwood Station, Units 1 and 2”: The NRC staff found the licensee’s reliance on EPRI testing of PSVs to be acceptable.
  - 1993 and 1994 Westinghouse Nuclear Safety Advisory Letter NSAL-93-013 and NSAL-93-013, Supplement 1: “It should be noted that the licensees may have qualified these valves in compliance to NUREG-0737, Item II.D.1.”
- **Review of valve testing in 2001 power uprate for Byron and Braidwood**
  - A review of the safety evaluation and associated RAs shows that the staff was well aware of the nature of the EPRI testing being relied on. This understanding was

confirmed in a conversation the panel had with the then PWR Reactor Systems Section Chief.

- In 2001, the NRC granted a power uprate for Shearon Harris that included the operability of PORVs and PSVs during the discharge of subcooled water in accordance with NUREG-0737, Item II.D.1.
- **Review of valves in 2004 setpoint amendment for Byron and Braidwood**
  - In 2004, NRC issued a license amendment for the Braidwood and Byron Stations granting an adjustment to the PSV setpoints. In an RAI, the staff requested that Exelon perform a quantitative analysis regarding PSV water cycles and relief/discharge water temperature. In its SER, the staff concluded that the reanalysis was acceptable for assuring that the PSVs will remain operable following a spurious safety injection event.
- **Application of staff guidance regarding valve failures**
  - 2005 RIS 2005-029: "The NRC staff's position is noted in the power uprate review standard [RS-001 2003], as follows: ... '(b) pressurizer level should not be allowed to reach a pressurizer water-solid condition.'" However, RIS 2005-29 and its draft supplement do not discuss ASME water relief certification requirements. Also, when RIS 2005-29 was originally issued, the staff stated that it did not publish the RIS in the *Federal Register* for comment because "this RIS is informational and pertains to a NRC staff position that does not depart from current regulatory requirements and practice."
  - Further, RS-001 stated, "The staff does not intend to impose the criteria and/or guidance in this review standard on plants whose design bases do not include these criteria and/or guidance." This intent was confirmed in personal discussions with the NRR manager responsible for developing and issuing RS-001. Therefore, contrary to the RIS statement, neither the RS-001 review standard nor the RIS 2005-29 documented "known and established standards of the Commission."
  - In 2006, the NRC granted a power uprate for Beaver Valley that referred to RIS 2005-29 and found reasonable assurance that the PSVs would adequately discharge and reseal following a spurious safety injection actuation with reliance on the EPRI test data. In addition, the panel found general references to EPRI and vendor testing for the capability of PSVs and PORVs in license amendments for other nuclear power plants.
  - In 2007 SRP 15.5.1 "The pressurizer safety valves, too, may be assumed to reseal properly after having relieved water; but only if such valves have been qualified for water relief." This section does not reference ASME requirements for qualification.

**In summary:**

The NRR 2015 compliance backfit finding (October 9, 2015 letter to Exelon) is predicated on the following positions (*emphases added*):

- "water relief through a valve that is not qualified for water relief will cause that valve to stick in its fully open position"
- "the licensee ... has not applied the single-failure assumption"
- "nor have they provided ASME water qualification documentation for the PSVs ... the ASME...original Overpressure Protection Report ... inservice test history... including both water and steam tests"

However, none of these positions were "known and established standards of the Commission" in 2001 or 2004 for determining when it was appropriate to assume a failure of PSVs to reseal.

In fact, they were not “known and established standards of the Commission” in 2005 or 2006 or 2007.

Moreover, these positions do not appear to be “established standards of the Commission” at present, since the call for use of the single failure criterion first appears in proposed 2015 draft Revision 1 to RIS 2005-029, and the call for ASME certification first appears in the Exelon compliance backfit. The panel concludes that the standard in place in 2001 and 2004 and at present is simply that the probability of failure of a PSV is sufficiently small, based on well-informed staff engineering judgement, and that the use of the word “qualified” or “qualification” implied only a general demonstration of capability, such as in the EPRI testing done in response to TMI Action Plan Item II.D.1.

The panel concludes that the positions taken to support the compliance backfit finding represent new and different staff views on how to address potential PSV failures following water discharge. Although they represent well-intentioned staff positions that could provide additional safety margin, they do not provide a basis for a compliance backfit.

In addition to the specific finding relating to the backfit appeal, the panel believes it is important to acknowledge that water discharge through a PSV not specifically designed for such service is undesirable and should be minimized or avoided as a matter of conservative engineering and prudent operations. The panel concludes this while fully aware that the event sequence being considered appears to be of little safety significance (the panel has requested RES analysis to confirm this belief). Operator training and emergency procedures to terminate the event before pressurizer filling, as well as the use of power-operated relief valves rather than relying solely on PSVs, are clearly preferred, whether they form the facilities’ UFSAR licensing basis or not.

**From:** [Oesterle, Eric](#)  
**To:** [McGinty, Tim](#); [Lubinski, John](#); [Abraham, Susan](#); [Beasley, Benjamin](#); [Benner, Eric](#); [Boland, Anne](#); [Davis, Jack](#); [Felts, Russell](#); [Gavrilas, Mirela](#); [Giitter, Joseph](#); [Helton, Shana](#); [Lee, Samson](#); [Lund, Louise](#); [Marshall, Jane](#); [Miller, Chris](#); [Ross-Lee, MaryJane](#); [Shams, Mohamed](#); [Taylor, Robert](#); [Wilson, George](#)  
**Cc:** [Whitman, Jennifer](#); [Stuchell, Sheldon](#)  
**Subject:** RE: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OOO-Pre-decisional-Internal NRC Use Only~~  
**Date:** Tuesday, August 02, 2016 12:29:00 PM

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I've reached out to David Alley who is John Billerbeck's BC and he is also interested.  
Eric

**From:** McGinty, Tim

**Sent:** Tuesday, August 02, 2016 12:28 PM

**To:** Lubinski, John ; Abraham, Susan ; Beasley, Benjamin ; Benner, Eric ; Boland, Anne ; Davis, Jack ; Felts, Russell ; Gavrilas, Mirela ; Giitter, Joseph ; Helton, Shana ; Lee, Samson ; Lund, Louise ; Marshall, Jane ; Miller, Chris ; Ross-Lee, MaryJane ; Shams, Mohamed ; Taylor, Robert ; Wilson, George

**Cc:** Whitman, Jennifer ; Oesterle, Eric ; Stuchell, Sheldon

**Subject:** RE: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OOO-Pre-decisional-Internal NRC Use Only~~

McGinty, Jen Whitman, Oesterle, Lubinski, Billerbeck, Stuchell, Garmoe, Louise/Mirela, a DE BC if desired.

**From:** Lubinski, John

**Sent:** Tuesday, August 02, 2016 12:24 PM

**To:** McGinty, Tim <[Tim.McGinty@nrc.gov](mailto:Tim.McGinty@nrc.gov)>; Abraham, Susan <[Susan.Abraham@nrc.gov](mailto:Susan.Abraham@nrc.gov)>; Beasley, Benjamin <[Benjamin.Beasley@nrc.gov](mailto:Benjamin.Beasley@nrc.gov)>; Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Davis, Jack <[Jack.Davis@nrc.gov](mailto:Jack.Davis@nrc.gov)>; Felts, Russell <[Russell.Felts@nrc.gov](mailto:Russell.Felts@nrc.gov)>; Gavrilas, Mirela <[Mirela.Gavrilas@nrc.gov](mailto:Mirela.Gavrilas@nrc.gov)>; Giitter, Joseph <[Joseph.Giitter@nrc.gov](mailto:Joseph.Giitter@nrc.gov)>; Helton, Shana <[Shana.Helton@nrc.gov](mailto:Shana.Helton@nrc.gov)>; Lee, Samson <[Samson.Lee@nrc.gov](mailto:Samson.Lee@nrc.gov)>; Lund, Louise <[Louise.Lund@nrc.gov](mailto:Louise.Lund@nrc.gov)>; Marshall, Jane <[Jane.Marshall@nrc.gov](mailto:Jane.Marshall@nrc.gov)>; Miller, Chris <[Chris.Miller@nrc.gov](mailto:Chris.Miller@nrc.gov)>; Ross-Lee, MaryJane <[MaryJane.Ross-Lee@nrc.gov](mailto:MaryJane.Ross-Lee@nrc.gov)>; Shams, Mohamed <[Mohamed.Shams@nrc.gov](mailto:Mohamed.Shams@nrc.gov)>; Taylor, Robert <[Robert.Taylor@nrc.gov](mailto:Robert.Taylor@nrc.gov)>; Wilson, George <[George.Wilson@nrc.gov](mailto:George.Wilson@nrc.gov)>

**Cc:** Whitman, Jennifer <[Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov)>; Oesterle, Eric <[Eric.Oesterle@nrc.gov](mailto:Eric.Oesterle@nrc.gov)>; Stuchell, Sheldon <[Sheldon.Stuchell@nrc.gov](mailto:Sheldon.Stuchell@nrc.gov)>

**Subject:** RE: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OOO-Pre-decisional-Internal NRC Use Only~~

Ok, can we have an initial meeting? Who should attend?

**From:** McGinty, Tim

**Sent:** Tuesday, August 02, 2016 12:19 PM

**To:** Abraham, Susan <[Susan.Abraham@nrc.gov](mailto:Susan.Abraham@nrc.gov)>; Beasley, Benjamin <[Benjamin.Beasley@nrc.gov](mailto:Benjamin.Beasley@nrc.gov)>; Benner, Eric <[Eric.Benner@nrc.gov](mailto:Eric.Benner@nrc.gov)>; Boland, Anne <[Anne.Boland@nrc.gov](mailto:Anne.Boland@nrc.gov)>; Davis, Jack <[Jack.Davis@nrc.gov](mailto:Jack.Davis@nrc.gov)>; Felts, Russell <[Russell.Felts@nrc.gov](mailto:Russell.Felts@nrc.gov)>; Gavrilas, Mirela <[Mirela.Gavrilas@nrc.gov](mailto:Mirela.Gavrilas@nrc.gov)>; Giitter, Joseph <[Joseph.Giitter@nrc.gov](mailto:Joseph.Giitter@nrc.gov)>; Helton, Shana <[Shana.Helton@nrc.gov](mailto:Shana.Helton@nrc.gov)>; Lee, Samson <[Samson.Lee@nrc.gov](mailto:Samson.Lee@nrc.gov)>; Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Lund, Louise <[Louise.Lund@nrc.gov](mailto:Louise.Lund@nrc.gov)>; Marshall, Jane <[Jane.Marshall@nrc.gov](mailto:Jane.Marshall@nrc.gov)>; McGinty, Tim <[Tim.McGinty@nrc.gov](mailto:Tim.McGinty@nrc.gov)>; Miller, Chris

<Chris.Miller@nrc.gov>; Ross-Lee, MaryJane <MaryJane.Ross-Lee@nrc.gov>; Shams, Mohamed <Mohamed.Shams@nrc.gov>; Taylor, Robert <Robert.Taylor@nrc.gov>; Wilson, George <George.Wilson@nrc.gov>

**Cc:** Whitman, Jennifer <Jennifer.Whitman@nrc.gov>; Oesterle, Eric <Eric.Oesterle@nrc.gov>; Stuchell, Sheldon <Sheldon.Stuchell@nrc.gov>

**Subject:** FW: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OOO- Pre-decisional - Internal NRC Use Only~~

As discussed this morning, attached as an FYI is the OEDO panels preliminary findings. Lousie/Mirela and John/MJ – as we coordinate, Bill Dean made a point to me a few minutes ago that we should also coordinate with DPR, who has already expressed views to Bill. Jen Whitman mentioned to me that she was engaging Alex. Tim

**From:** Holahan, Gary

**Sent:** Monday, August 01, 2016 5:57 PM

**To:** Dean, Bill <Bill.Dean@nrc.gov>; Lubinski, John <John.Lubinski@nrc.gov>; McGinty, Tim <Tim.McGinty@nrc.gov>; Akstulewicz, Frank <Frank.Akstulewicz@nrc.gov>; Doane, Margaret <Margaret.Doane@nrc.gov>; Mcdermott, Brian <Brian.McDermott@nrc.gov>; Bailey, Marissa <Marissa.Bailey@nrc.gov>

**Cc:** Hackett, Edwin <Edwin.Hackett@nrc.gov>; West, Steven <Steven.West@nrc.gov>; Clark, Theresa <Theresa.Clark@nrc.gov>; Scarbrough, Thomas <Thomas.Scarbrough@nrc.gov>; Spencer, Michael <Michael.Spencer@nrc.gov>; Evans, Michele <Michele.Evans@nrc.gov>; Williamson, Edward <Edward.Williamson@nrc.gov>; Mizuno, Geary <Geary.Mizuno@nrc.gov>; Shuaibi, Mohammed <Mohammed.Shuaibi@nrc.gov>; Mccree, Victor <Victor.McCree@nrc.gov>; Johnson, Michael <Michael.Johnson@nrc.gov>; Tracy, Glenn <Glenn.Tracy@nrc.gov>; Gody, Tony <Tony.Gody@nrc.gov>

**Subject:** Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OOO- Pre-decisional - Internal NRC Use Only~~

All,

Consistent with the plan we presented last week, attached are the preliminary findings of the Exelon Backfit Appeal Panel. The Summary from the Preliminary Findings is reproduced below. The preliminary findings were discussed briefly with the OEDO for their awareness.

As indicated in our completion plan, the panel would appreciate any comments on, or additions to: the documents cited; their interpretation and intent; or the understanding of the backfit rule compliance exception. Comments would be appreciated by August 9, 2016, but can be accepted as last as August 15, 2016. The panel will also be available for discussion any time before August 15, 2016.

Comments will be reflected or acknowledged in the panel's final report and recommendations to the EDO.

The Preliminary Findings document attached is an internal, pre-decisional document at this time. Both Exelon and NEI declined offers for a public meeting on this issue.

Gary ... for the panel

-Steve West

-Tom Scarborough

-Michael Spencer

-Theresa Clark

**In summary:**

The NRR 2015 compliance backfit finding (October 9, 2015 letter to Exelon) is predicated on the following positions (emphases added):



- “water relief through a valve that is not qualified for water relief will cause that valve to stick in its fully open position”
- “the licensee ... has not applied the single-failure assumption”
- “nor have they provided ASME water qualification documentation for the PSVs ... the ASME...original Overpressure Protection Report ... inservice test history... including both water and steam tests”

However, none of these positions were “known and established standards of the Commission” in 2001 or 2004 for determining when it was appropriate to assume a failure of PSVs to reseal. In fact, they were not “known and established standards of the Commission” in 2005 or 2006 or 2007.

Moreover, two of these positions do not appear to be “established standards of the Commission” at present, since the call for use of the single failure criterion first appears in proposed 2015 draft Revision 1 to RIS 2005-029, and the call for ASME certification first appears in the Exelon compliance backfit. The panel concludes that the standard in place in 2001 and 2004 and at present is simply that the probability of failure of a Pressurizer Safety Valve (PSV) is sufficiently small, based on well-informed staff engineering judgement, and that the use of the word “qualified” or “qualification” implied only a general demonstration of capability, such as in the EPRI testing done in response to TMI Action Plan Item II.D.1. The panel concludes that, in 2001 and 2004, the staff was not misinformed nor did it “err” in approving the Byron and Braidwood power uprates ... nor was it in error in approving other similar cases (e.g. Beaver Valley in 2006). The 2015 staff positions taken to support the compliance backfit finding represent new and different staff views on how to address potential PSV failures following water discharge. Although they represent well-intentioned staff positions that could provide additional safety margin, they do not provide a basis for a compliance backfit.

The panel’s findings therefore support the Exelon backfit appeal.

In addition to the specific finding relating to the backfit appeal, the panel believes it is important to acknowledge that water discharge through a PSV not specifically designed for such service is undesirable and should be minimized or avoided as a matter of conservative engineering and prudent operations. The panel concludes this while fully aware that the event sequence being considered appears to be of little safety significance (the panel has requested RES analysis to confirm this belief). Operator training and emergency procedures to terminate the event before pressurizer filling, as well as the use of power-operated relief valves rather than relying solely on PSVs, are clearly preferred, whether they form the facilities’ UFSAR licensing basis or not.

The panel has not (at this time) formed any views on whether a backfit on this topic could be justified as “adequate protection” or “cost justified”; or whether a “forward-fit” staff position is appropriate or not.

**From:** Oesterle, Eric  
**To:** Alley, David  
**Subject:** RE: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OUO - Pre-decisional - Internal NRC Use Only~~  
**Date:** Tuesday, August 02, 2016 11:55:00 AM  
**Attachments:** image001.png

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OK, thanks Dave.  
Eric

**From:** Alley, David  
**Sent:** Tuesday, August 02, 2016 11:53 AM  
**To:** Oesterle, Eric  
**Cc:** Billerbeck, John  
**Subject:** RE: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OUO - Pre-decisional - Internal NRC Use Only~~

I am at an epr meeting this week. I do think it would be a good idea to get together to discuss. Please chat with John Billerbeck this week. I will be back next week and would like to discuss then

Dave

**From:** Oesterle, Eric  
**Sent:** Tuesday, August 02, 2016 10:14 AM  
**To:** Alley, David <David.Alley@nrc.gov>  
**Cc:** Billerbeck, John <John.Billerbeck@nrc.gov>  
**Subject:** FW: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OUO - Pre-decisional - Internal NRC Use Only~~

David,

Now that the EDO Backfit Appeal Panel has developed their preliminary finding on this backfit, I wonder if you would entertain a discussion with SRXB and DSS/DE regarding any feedback you and your staff might have on this. For example, is there anything you feel needs clarification, anything you believe is incorrect, anything they missed, or has you feeling somewhat disappointed, etc. Let me know so we perhaps we can coordinate our branches/divisions to provide some feedback to Tim McGinty and John Lubinski as we start to move forward following the decision. Thanks!

*Eric R. Oesterle*

Chief (Acting), Reactor Systems Branch  
NRR/DSS/SRXB  
301-415-1014



**From:** McGinty, Tim  
**Sent:** Monday, August 01, 2016 6:14 PM  
**To:** Whitman, Jennifer <Jennifer.Whitman@nrc.gov>; Oesterle, Eric <Eric.Oesterle@nrc.gov>; Hickey, James <James.Hickey@nrc.gov>; Taylor, Robert <Robert.Taylor@nrc.gov>  
**Subject:** FW: Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OUO - Pre-decisional - Internal NRC Use Only~~

Team – please evaluate per the panel's request for any comments or clarifications, etc. Note that any comments provided will be reflected in the final recommendations, and ultimately I would anticipate being made publically available. I would think that we will want to meet on this in the near future.

Please also take your usual care to treat the information as OUO pre-decisional and internal use only. Thanks, Tim

**From:** Holahan, Gary

**Sent:** Monday, August 01, 2016 5:57 PM

**To:** Dean, Bill <Bill.Dean@nrc.gov>; Lubinski, John <John.Lubinski@nrc.gov>; Mcginty, Tim <Tim.McGinty@nrc.gov>; Akstulewicz, Frank <Frank.Akstulewicz@nrc.gov>; Doane, Margaret <Margaret.Doane@nrc.gov>; Mcdermott, Brian <Brian.McDermott@nrc.gov>; Bailey, Marissa <Marissa.Bailey@nrc.gov>

**Cc:** Hackett, Edwin <Edwin.Hackett@nrc.gov>; West, Steven <Steven.West@nrc.gov>; Clark, Theresa <Theresa.Clark@nrc.gov>; Scarborough, Thomas <Thomas.Scarborough@nrc.gov>; Spencer, Michael <Michael.Spencer@nrc.gov>; Evans, Michele <Michele.Evans@nrc.gov>; Williamson, Edward <Edward.Williamson@nrc.gov>; Mizuno, Geary <Geary.Mizuno@nrc.gov>; Shuaibi, Mohammed <Mohammed.Shuaibi@nrc.gov>; Mccree, Victor <Victor.McCree@nrc.gov>; Johnson, Michael <Michael.Johnson@nrc.gov>; Tracy, Glenn <Glenn.Tracy@nrc.gov>; Gody, Tony <Tony.Gody@nrc.gov>

**Subject:** Exelon Backfit Appeal Panel Preliminary Findings FOR COMMENT - ~~OUO Pre-decisional Internal NRC Use Only~~

All,

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*Comments will be reflected or acknowledged in the panel's final report and recommendations to the EDO.*

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Gary ... for the panel

-Steve West

-Tom Scarborough

-Michael Spencer

-Theresa Clark

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