### NRC FORM 464 Part I **RESPONSE NUMBER** U.S. NUCLEAR REGULATORY COMMISSION **FOIA** (03-2017) 2018-0010 RESPONSE TO FREEDOM OF **INFORMATION ACT (FOIA) REQUEST** RESPONSE INTERIM **FINAL TYPE** REQUESTER: DATE: David Lochbaum, Union of Concerned Scientists 12/08/2017 **DESCRIPTION OF REQUESTED RECORDS:** Records corresponding to items 29, 34, 38, 64, and 97, as further explained in the Comments Section, below. PART I. -- INFORMATION RELEASED You have the right to seek assistance from the NRC's FOIA Public Liaison. Contact information for the NRC's FOIA Public Liaison is available at https://www.nrc.gov/reading-rm/foia/contact-foia.html Agency records subject to the request are already available on the Public NRC Website, in Public ADAMS or on microfiche in the NRC Public Document Room. Agency records subject to the request are enclosed. ✓ Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you. We are continuing to process your request. See Comments. **PART I.A -- FEES** NO FEES AMOUNT\* You will be billed by NRC for the amount listed. Minimum fee threshold not met. You will receive a refund for the amount listed. Due to our delayed response, you will not be charged fees. Fees waived. \*See Comments for details PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE We did not locate any agency records responsive to your request. Note: Agencies may treat three discrete categories of law enforcement and national security records as not subject to the FOIA ("exclusions"). 5 U.S.C. 552(c). This is a standard notification given to all requesters; it should not be taken to mean that any excluded records do, or do not, exist. We have withheld certain information pursuant to the FOIA exemptions described, and for the reasons stated, in Part II. ✓ Because this is an interim response to your request, you may not appeal at this time. We will notify you of your right to appeal any of the responses we have issued in response to your request when we issue our final determination.

You may appeal this final determination within 90 calendar days of the date of this response by sending a letter or e-mail to the FOIA Officer, at U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or FOIA.Resource@nrc.gov. Please be sure to include on your letter or email that it is a "FOIA Appeal." You have the right to seek dispute resolution services from the NRC's Public Liaison, or the Office of Government Information Services (OGIS). Contact information for OGIS is available at https://ogis.archives.gov/about-ogis/contact-information.htm

# PART I.C COMMENTS (Use attached Comments continuation page if required)

This sixth interim response addresses five additional records, or groups of records, described in your request. Although the records bearing ML numbers starting with "16" have been removed from ADAMS, because the NRC was able to locate them by the accession numbers during the processing of several FOIA requests seeking the same records within the past year, we have processed the records as described below. We have processed these records, taking into account the privacy waiver furnished by Lawrence Criscione, and to the extent applicable, the privacy waivers of third parties whose personally identifiable information (e.g., cell phone numbers, email addresses) were included in some of these records.

Signature - Freedom of Information Act Officer or Designee

Stephanie A. Blaney

Digitally signed by Stephanie A. Blaney Date: 2017.12.08 11:11:59 -05'00'

IRC FORM 464 Part I	U.S. NUCLEAR REGULATORY COMMISSION	FOIA	RESPONSE NUMBER
03-2017)	RESPONSE TO FREEDOM OF INFORMATION	2018-0010	6
	ACT (FOIA) REQUEST Continued	RESPONSE INTE	FINAL FINAL
REQUESTER:			DATE:

### **PART I.C COMMENTS (Continued)**

David Lochbaum, Union of Concerned Scientists

ML16216A709 (item 29) is a copy of an email to various NRC officials, including the FOIA Officer at that time, attaching a letter, in which the sender, Mr. Criscione, raises concerns about the lack of a timely response to several pending FOIA appeals. It is enclosed with this response.

ML16232A001 (item 34) is an email from Mr. Criscione to another staff member in the Office of Regulatory Research (RES), to which he attached several Forms 655, ADAMS Document Submission; it is enclosed.

ML16236A230 (item 38) is an early draft document, "Generic Issue Program Proposal - Random Failure of an Upstream Dam." The NRC is exercising its discretion to release this record in its entirety; it is enclosed.

ML16244A008 (item 64) consists of an email from Mr. Criscione to then-Commissioner Ostendorff, in which he forwarded an email exchange he had had with another NRC staff member and attached several other records. This email and the attached records were previously released in part as ML15128A610; we have revisited the material that had been redacted pursuant to exemption 5 as it incorporates the deliberative process privilege. We continue to assert exemption 6 for a cell number of another NRC staff member. The record, with the content restored, is enclosed. The November 14, 2012 letter to Senator Boxer is also enclosed with Mr. Criscione's PII restored, in light of the privacy waiver he furnished.

In item 97 of your request, you asked for copies of the records responsive to several specified FOIA requests. We note that most of the FOIA requests and the NRC's responses to them have been included in public ADAMS; we have included the ML numbers for the web packages corresponding to the FOIA request numbers, as applicable). The records that were the subject of FOIA-2013-0008 (ML14065A198) (which was appealed in 2013-0015A for lack of a timely response and administratively closed once the agency responded to the request), 2013-0013 (ML14065A204), 2013-0127 (ML14065A224) (which was appealed in 2013-0010A for lack of a timely response and administratively closed once the agency responded to the request), 2013-0239 (ML14065A233) (which was appealed in 2013-0018A (ML14087A357) for lack of a timely response and administratively closed due to the settlement reached in PEER v. NRC, No. 1:13-cv-00942-RMC (ML14065A233 and ML13352A341); 2013-0262 (which was appealed in 2013-0022A (ML15118A439) for lack of a timely response and administratively closed once the agency responded to the request and later appealed as to the denial of information in FOIA-2015-0027A (ML15155A891)), and 2015-0331 (which was administratively closed when the requester did not submit a payment for fees that were estimated to exceed \$250) all concern the Oconee Nuclear Station, and the risks posed by possible flooding from the Jocassee dam located upstream of the plant. Because the records were the subject of multiple FOIA requests over time, they have been reviewed by subject matter experts on several occasions and re-processed. Ultimately, each of the following records was made available to the public in its entirety. You may find them in public ADAMS as follows:

1) ML081640244 4) ML101900305 2) ML090570779

3) ML101730329

5) ML103490330

6) ML101610083

7) ML111460063

8) ML091170104

9) ML082750106

The agency's initial response to FOIA-2013-0262 was not made publicly available; as such, we have enclosed the Form 464 response and released records. Please note that, in light of the passage of time, we have made modest changes to the way in which these pages are being released to you; i.e., certain portions of text, previously marked as "non-responsive", have now been considered responsive, and a few portions of previously redacted text have been restored as a matter of discretionary release. Moreover, in light of a privacy waiver provided by David Lochbaum, his PII has been restored. However, a personal email address of a third party appearing on an email that Mr. Criscione (the requester in FOIA-2013-0262) had

[continued on next page]

12/08/2017

NRC FORM 464 Part I	U.S. NUCLEAR REGULATORY COMMISSION	FOIA	RESPONSE NUMBER
(03-2017)	O FREEDOM OF INFORMATION	2018-0010	6
	OIA) REQUEST Continued	RESPONSE INTE	ERIM FINAL
REQUESTER:		-	DATE:
David Lochbaum, Union of Conc	erned Scientists		12/08/2017
PART I.C COMMENTS (Continued)			
sent, which was not redacted in the as its disclosure would constitute incorporates the deliberative proceeding personally identifiable information email and accompanying letter the responsive records in FOIA-2013 ML13256A372, respectively, with	ne FOIA-2013-0262 response to him, has been an unwarranted invasion of personal privacy. eess, attorney-client, and/or work product privacy on (PII), respectively, in the material that remains at Mr. Criscione wrote (then) Chairman Macfis-0127 and 2013-0239, were made publicly as the only the author's home address and cell number of these two records in their entirety.	We continue to assert edleges, or exemption 6 for ins redacted from these arlane about Oconee, what is allable as ML13256A37	xemptions 5 as it or other third parties' records. Finally, the hich were the 70 and

(03-2017)

# RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) REQUEST

FOIA	
2018-0010#6	
DATE:	

12/08/2017

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Records subject to the request are t	being withheld in their entirety or in part under	the FOIA exemption(s) as indicated below (5	U.S.C. 552(b)).					
Exemption 1: The withheld informa	ation is properly classified pursuant to an Executiv	/e Order protecting national security information.						
Exemption 2: The withheld informa	ation relates solely to the internal personnel rules	and practices of NRC.						
Exemption 3: The withheld information	ation is specifically exempted from public disclosu	re by the statute indicated.						
Sections 141-145 of the Atomic	Sections 141-145 of the Atomic Energy Act, which prohibits the disclosure of Restricted Data or Formerly Restricted Data (42 U.S.C. 2161-2165).							
Section 147 of the Atomic Ener	rgy Act, which prohibits the disclosure of Unclassi	ified Safeguards Information (42 U.S.C. 2167).						
41 U.S.C. 4702(b), which prohi submitter of the proposal.	ibits the disclosure of contractor proposals, excep	ot when incorporated into the contract between th	e agency and the					
Exemption 4: The withheld informa indicated.	ation is a trade secret or confidential commercial of	or financial information that is being withheld for the	he reason(s)					
1 1	d to be proprietary because it concerns a licens ial nuclear material pursuant to 10 CFR 2.390(o		rial control and					
The information is considered	d to be another type or confidential business (p	roprietary) information.						
The information was submitte	ed by a foreign source and received in confiden	nce pursuant to 10 CFR 2.390(d)(2).						
Exemption 5: The withheld inform	nation consists of interagency or intraagency re	ecords that are normally privileged in civil litiga	tion.					
✓ Deliberative process privilege	ł.							
Attorney work product privileg	je.							
✓ Attorney-client privilege.								
Exemption 6: The withheld informa in a clearly unwarranted invasion of	ation from a personnel, medical, or similar file, is ef personal privacy.	exempted from public disclosure because its discl	losure would result					
Exemption 7: The withheld informa	ation consists of records compiled for law enforcer	ment purposes and is being withheld for the reas-	on(s) indicated.					
(A) Disclosure could reasonab	oly be expected to interfere with an open enforcen	nent proceeding.						
(C) Disclosure could reasonab	bly be expected to constitute an unwarranted inva-	sion of personal privacy.						
(D) The information consists of sources.	f names and other information the disclosure of w	which could reasonably be expected to reveal idea	ntities of confidential					
(E) Disclosure would reveal terescript expected to risk circumven	chniques and procedures for law enforcement invition of the law.	restigations or prosecutions, or guidelines that co	ould reasonably be					
(F) Disclosure could reasona	ably be expected to endanger the life or physical	al safety of an individual.						
Other								
	PART II.B DENYING O	FFICIALS						
	0.25(g) and 9.25(h) of the U.S. Nucle							
official(s) listed below have r	made the determination to withhole	d certain information responsive to	o your request.					
DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL EDO SECY					
Stephanie A. Blaney	FOIA Officer	third party PII, internal deliberations	<b>✓</b>					
Rochelle Bavol	Exec Asst to the Secretary to the Commission	atty-client advice; work product, deliberations						
		& third party PII						
Anneals must be made in wr	iting within 90 calendar days of the	e date of this response by sending	n a letter					

Appeals must be made in writing within 90 calendar days of the date of this response by sending a letter or email to the FOIA Officer, at U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or FOIA.Resource@nrc.gov. Please be sure to include on your letter or email that it is a "FOIA Appeal."

### Criscione, Lawrence

From:

Criscione, Lawrence

Sent:

Thursday, August 18, 2016 2:59 PM

To:

Littlejohn, Jennene

Subject:

FW: 17 ADAMS documents

Attachments:

NRC Form 665\_Criscione\_2016-Aug-3.pdf

Jennene,

What do I need to do to get the records below declared Official Agency Records?

Larry

573-230-3959

From: Criscione, Lawrence

Sent: Wednesday, August 03, 2016 11:48 PM

To: Littlejohn, Jennene < Jennene.Littlejohn@nrc.gov>

Subject: 17 ADAMS documents

Jennene,

I need the 17 documents listed on the attached NRC Form 665 declared Official Agency Records so that I can reference them in public comments I am making on an NRC report.

I have done a SUNSI review and none of the documents contain any sensitive information:

- 1. ML16202A536 is an email coordinating a meeting to discuss flooding issues with four attachments already in the public domain.
- 2. ML16202A537 is an email providing advanced input to a meeting to discuss flooding issues.
- 3. ML16202A538 is an email providing clarifying information to statements made during a meeting.
- 4. ML16204A001 is a non-government email sent to some Congressional staffers.
- 5. ML16204A002 is a letter to the NRC Inspector General that is already in the public domain.
- 6. ML16216A702 is a non-government email.
- 7. ML16216A703 is a redacted record released under the Freedom of Information Act.
- 8. ML16216A704 is a publicly available Linked-In profile.
- 9. ML16216A705 is a redacted record released under the Freedom of Information Act.
- 10. ML16216A706 is a FOIA appeal.
- 11. ML16216A707 is input to a meeting discussing FOIA releases of dam-related information.
- 12. ML16216A708 is a response to a FOIA inquiry.
- 13. ML16216A709 is a follow-up to a FOIA appeal.
- 14. ML16216A710 is a letter providing input to an OIG audit team.
- 15. ML16216A711 is a briefing package provided by the Union of Concerned Scientists to Chairman Burns and Commissioner Baran.
- 16. ML16216A712 is a FOIA appeal.
- 17. ML16216A713 is a table entry showing the dates of when a FOIA request was processed.

I am working from Illinois this week and have limited access to my NRC email account. If you have any questions regarding any of the 17 records, please give me a call at 573-230-3959.

Thanks,

# ADAMS DOCUMENT SUBMISSION

Instructions for com	pleting NRC Form 665	- "Cheat She	eet" (ML153	13A310	)		
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# Criscione, Lawrence

From: Criscione, Lawrence

**Sent:** Thursday, July 21, 2016 2:56 PM

To: Littlejohn, Jennene

Subject: RE: Emails from May 19, 2016

### Thanks

From: Littlejohn, Jennene

Sent: Thursday, July 21, 2016 2:54 PM

To: Criscione, Lawrence < Lawrence. Criscione@nrc.gov>

Subject: RE: Emails from May 19, 2016

### Completed

From: Criscione, Lawrence

Sent: Thursday, July 21, 2016 2:09 PM

To: Littlejohn, Jennene < Jennene.Littlejohn@nrc.gov>

Subject: RE: Emails from May 19, 2016

Thanks Jennene. I just finished the other four.

From: Littlejohn, Jennene

Sent: Thursday, July 21, 2016 2:08 PM

To: Criscione, Lawrence < Lawrence. Criscione@nrc.gov>

Subject: RE: Emails from May 19, 2016

Yes, you gave me the correct access rights

From: Criscione, Lawrence

Sent: Thursday, July 21, 2016 2:06 PM

To: Littlejohn, Jennene < Jennene.Littlejohn@nrc.gov>

Subject: RE: Emails from May 19, 2016

I think I got this done for ML16200A049.

I'm working on doing the same thing to the rest, so please let me know if I didn't do it right for ML16200A049.

Thanks, Larry

From: Littlejohn, Jennene

Sent: Thursday, July 21, 2016 1:59 PM

To: Criscione, Lawrence < Lawrence. Criscione@nrc.gov>

Subject: RE: Emails from May 19, 2016

Okay let me check it for you

From: Criscione, Lawrence

Sent: Thursday, July 21, 2016 1:58 PM

To: Littlejohn, Jennene < Jennene.Littlejohn@nrc.gov>

Subject: RE: Emails from May 19, 2016

Done (I think)

From: Littlejohn, Jennene

Sent: Thursday, July 21, 2016 1:39 PM

To: Criscione, Lawrence < Lawrence. Criscione@nrc.gov>

Subject: RE: Emails from May 19, 2016

Hi Larry,

I don't have rights to these files, you will need to give NRC users rights as well.

Thanks, Jennene

From: Criscione, Lawrence

Sent: Wednesday, July 20, 2016 7:54 PM

To: Littlejohn, Jennene < Jennene.Littlejohn@nrc.gov>

Subject: Emails from May 19, 2016

Jennene,

ML16201A086, ML16201A095, ML16201A093 and ML16201A100 are emails that I sent on May 19, 2016 and placed in ADAMS yesterday. I have added the following sentence to the Comments field of their ADAMS profiles:

This document was placed in ADAMS on 2016-July-19 so that it could be referenced in public comments concerning an NRC report.

Attached is the documentation of the SUNSI review. There is no sensitive information in any of the four documents. ML16201A093 concerns a publicly released MOU between the ACRS and the USACE. ML16201A086 concerns a FOIA request and appeal. ML16201A095 pertains to the agency's practices for controlling access to SUNSI. ML16201A100 concerns the failure of the upper reservoir of the Taum Sauk pump storage stating outside Lesterville, MO on December 14, 2005 and the resultant flooding that occurred.

Please call me if you have any questions.

Thanks,

Larry 573-230-3959

----Original Message----

From: NRCDigitalSender@nrc.gov [mailto:NRCDigitalSender@nrc.gov]

Sent: Wednesday, July 20, 2016 7:43 PM

To: Criscione, Lawrence < Lawrence. Criscione@nrc.gov>

Subject:

This document was digitally sent to you using Dell Digital Sending device.



U.S. NUCLEAR REGULATORY COMMISSION

# ADAMS DOCUMENT SUBMISSION

Instructions for con	pleting NRC			eet" (ML153	-2-1	0)		
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# Criscione, Lawrence

From: Criscione, Lawrence

Sent: Wednesday, July 20, 2016 7:33 PM

To: Littlejohn, Jennene
Subject: ML16200A049

**Attachments:** image2016-07-20-192330.pdf

Jennene,

I placed ML16200A049 in ADAMS two days ago. I need it to be an official agency record so that I can reference it in public comments I am making on the NRC Chairman's response to the Office of Special Counsel.

Attached is the SUNSI review.

The document was originated by Donna Sealing (who's retired). It is a letter she sent to a member of the public in which she gave an agency position on "Official Use Only" information. Although this letter is currently in the public domain, it is not in ADAMS. It was official correspondence written in response to a FOIA request. The version I have of it was used in a FOIA Appeal. I do not have the original version of the record.

I added the following sentence to the document's comments:

This document was placed in ADAMS on 2016-July-18 so that it could be referenced in public comments concerning an NRC report.

Please give me a call if you have any questions.

Thanks, Larry 573-230-3959

----Original Message----

From: NRCDigitalSender@nrc.gov [mailto:NRCDigitalSender@nrc.gov]

Sent: Wednesday, July 20, 2016 7:24 PM

To: Criscione, Lawrence < Lawrence. Criscione@nrc.gov>

Subject:

This document was digitally sent to you using Dell Digital Sending device.

# U.S. NUCLEAR REGULATORY COMMISSION

### ADAMS DOCUMENT SUBMISSION

Instructions for compl	leting NRC Form 665 - '		et" (ML15313			
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# Generic Issue Program Proposal – Random Failure of an Upstream Dam

While reviewing a recent external flooding issue associated with a nuclear power plant (NPP), it was identified that, if a random failure of an adjacent upstream dam was not adequately evaluated, during the external flooding analysis of the NPP, it could have a potential impact on the public health and safety. The impact would be due to the amount of water that the reservoir would release and the associated effects on the environment, as well as on the common defense and security at the site. The overall result of this event at a nuclear site may contribute to an unacceptable level of probability of core damage frequency (CDF).

The Duke Energy Oconee Nuclear Station (ONS) did not originally evaluate the random failure of the Jocassee Dam in the plant design flooding analysis. The random failure of the Jocassee Dam will result in a flooding scenario, where approximately 18.5 feet of water could result at the site. Presently, the plant is only protected for a flood level of approximately 7 feet. Once the dam failure scenario starts, the plant has three hours until the water reaches the site. This amount of water will result in the loss of the switchyard, loss of the emergency power supply (hydro units), loss of the safe shutdown facility, and the loss of other mitigation equipment. With the loss of the above equipment, there will be core damage in 8 to 10 hours, followed by containment failure in 59 to 68 hours. The public would receive a significant radiation dose as a result of the combined fuel and containment failure.

The risk and safety significance of this issue has been adequately determined by the NRR staff (i.e., it does not involve phenomena or other uncertainties that would require long-term studies and/or experimental research to establish the risk or safety significance). After reviewing all of the available data, the present calculations show that a dam failure has an initiating event frequency (IEF) of 2.0 x 10-4. This calculated initiating frequency is consistent to the dam failure frequency studies performed by others as listed below in Table 1.

Area	Reference	No. of Failures	Total Dam Years (x10 <sup>-3</sup> )	Failure Rate
USA	Gruner (1963, 1967)	33	71.0	5 x 10 <sup>-4</sup>
	Babb & Mermel (1968)	12	43.0	3 x 10 <sup>-4</sup>
	USCOLD (1975)	74	113.0	7 x 10 <sup>-4</sup>
	Mark & Stuart-Alexander (1977)	1	4.5	2 x 10 <sup>-4</sup>
World	Mark & Stuart-Alexander (1977)	125	300.0	4 x 10 <sup>-4</sup>
	Middle brooks (1953) and Mark & Stuart-Alexander (1977)	9	47.0	2 x 10 <sup>-4</sup>
Japan	Takase (1967)	1046	30 000	4 x 10 <sup>-5</sup>
Spain	Gruner (1967)	150	235	6 x 10 <sup>-4</sup>
Overall A	Average Dam Failure Rate			4 x 10 <sup>-4</sup>

International, Niagara Falls, Ontario, Canada)

The CDF will be based on the plant configuration. At Oconee, the conditional core damage probability (CCDP) can be has high as 1, due to the loss of the mitigating equipment listed above. With the CCDP of 1, the result will give an overall CDF of 2.0 x 10-4 per year. Based on this outcome, the issue has to be properly evaluated.

The key point here is that a tremendous amount of water, from a random failure of an upstream dam, could reach a downstream nuclear site with the results being catastrophic. The potential catastrophic results would be due to the loses of the plant's mitigating equipment, due to the site flooding, which would lead to fuel failure and containment failure. This issue becomes even more relevant if the site did not adequately evaluate and mitigate a random dam failure scenario for the upstream dam.

Therefore, the NRR staff has determined that this issue is a good candidate for inclusion in the generic issue program (GIP). The issue cannot be readily addressed through other regulatory programs and processes; existing regulations, policies, or guidance; or voluntary industry initiatives. However, this issue can be resolved by a new or revised regulation, policy, or guidance.

Finally, we believe that the issue is well-defined, discrete, and technical, and the resolution of this issue may potentially involve review, analysis, or action by the affected licensees operating the nuclear power plants (NPPs) located downstream of dams.

Based on the potential outcome of this issue, the NRR staff conducted a brief investigation to determine if similar flooding situations existed at other nuclear plant sites, and found that there are, indeed, several sites with the potential of external flooding issues as a result of upstream dam failures.

Attached is Table 2 with a preliminary list of dams located upstream of several NPPs, entitled, "Review of Dam and/or Levee Failures for Nuclear Plants," which was prepared by the Division of Reactor Licensing (DORL)/NRR. This list contains comments (shown as "FSAR Discussion," in the last column of the table) regarding whether an analysis was completed regarding the potential failure of the dams.

Table 2 Preliminary List of Nuclear Sites w/o Dam Failure Evaluations

Site Name	State	Area	Body of Water	Max. Design Basis (ft. msl)	Yard Grade (ft. msl)	Random Sunny Day Upstream Dam Failure Evaluated
Arkansas Nuclear	AR	Stream	Arkansas River	361	353	NO
Cooper	NE	Stream	Missouri River	906	903	NO
Fort Calhoun	NE	Stream	Missouri River	1014	1000	NO
Indian Point	NY	Stream	Hudson River	15	?	NO
Prairie Island	MN	Stream	Mississippi River	684.5	695	NO
Robinson	sc	Lake	Lake Robinson	NA	225	NO
Salem	DE	Stream	Delaware River	NOT AVAILABLE	9	NO
Surry	VA	Stream	James River	28.6	26.5	NO
Three Mile Island	PA	Stream	Susquehanna River	310	304	NO

In view of the information discussed above, concerning the potential hazards caused by dam breaks at more than a couple of NPPs, we request that you initiate expeditious action to enter the external flooding issue into the GIP. If you have any questions, your staff may contact George Wilson (301-415-1711) or Meena Khanna (301-415-2150).

# Criscione, Lawrence

From: Criscione, Lawrence

Sent: Monday, December 10, 2012 6:53 PM

To: Ostendorff, William; Magwood, William

Cc: Boska, John; Hiland, Patrick; Evans, Michele; Pascarelli, Robert; Wilson, George; Bartley,

Jonathan; Cook, Christopher; Miller, Ed; Cheok, Michael; Chen, Yen-Ju; Beasley, Benjamin; Merzke, Daniel; Coffin, Stephanie; Skeen, David; See, Kenneth; Monninger, John; Perkins, Richard; Bensi, Michelle; Philip, Jacob; Sancaktar, Selim; Galloway, Melanie; Mitman, Jeffrey; Ferrante, Fernando; Buhar, Patrice; Tappert, John

Melanie; Mitman, Jeffrey; Ferrante, Fernando; Bubar, Patrice; Tappert, John

Subject: Your Meeting Today Concerning Flooding at Oconee from Jocassee Dam

Attachments: 2012-12-10\_Briefing\_on\_Oconee\_Flooding.pdf.pdf; Lack of Transparency Impeding

Resolution of Flooding Concerns at Oconee.pdf.pdf; 2009-04-06.pdf

#### Commissioner Ostendorff,

It came to my attention today that you and Commissioner Magwood were being briefed by NRR on the flooding vulnerabilities posed to the reactors at Oconee from a catastrophic failure of Jocassee Dam. Attached to this email are the "Commissioner Briefing Notes" prepared by NRR. Also attached are a 2012-11-14 letter from me to the Senate Committee on the Environment & Public Works (E&PW) and an April 6, 2009 Non-Concurrence Form which a Deputy Division Director at NRR/DRA (Melanie Galloway) submitted against NRR's pusillanimous treatment of the Oconee/Jocassee concerns.

I do not know exactly what you were told during your briefing today, but if it was limited to the "Commissioner Briefing Notes" then you did not receive all the pertinent facts.

A major concern of mine, which I addressed in my attached letter to the E&PW, is that, in all the internal documents I have uncovered regarding NRR briefings of the Commissioners on the Jocassee/Oconee flooding issue, the actual risk numbers calculated by NRR/DRA are never mentioned and neither is the 2008-09-26 Duke Energy timeline concerning the predicted failure sequence which would occur at Oconee following a catastrophic failure of the Lake Jocassee Dam (for the context of the quote below, see p. 10 of Attachment 2 of ML082750106):

The following flood timeline is based on the results of the 1992 Inundation Study. In this scenario the dam is assumed to fail at time zero. Notification from Jocassee would occur before a total failure of the dam; however, for purposes of this timeline, notification is assumed to be at the same time the dam fails. Following notification from Jocassee, the reactor(s) are shutdown within approximately 1 hour. The predicted flood would reach ONS in approximately 5 hours, at which time the SSF walls are overtopped. The SSF is assumed to fail, with no time delay, following the flood level exceeding the height of the SSF wall. The failure scenario results are predicted such that core damage occurs in about 8 to 9 hours following the dam break and containment failure in about 59 to 68 hours. When containment failure occurs, significant dose to the public would result.

Hopefully you recognize that the above scenario is very similar to what occurred at Fukushima when a tsunami overtopped their inadequately sized flood wall and disabled their standby shutdown equipment. Why the above scenario does not ever appear in Commissioner briefing packages, I do not understand. This seems to me like something you would want to know.

Another thing you should know is the annual probability of failure calculated by NRR/DRA for Jocassee Dam. That number is 2.8E-4/year, which is of the same order of magnitude of a 49 foot tsunami striking the Japanese coast at Fukushima. Given this calculated probability of dam failure and the Duke Energy timeline quoted above, it appears that the inadequately sized flood wall at Oconee presents a very similar hazard to the American public as the inadequately

sized flood wall at Fukushima presented to the Japanese public. Is this not something of which NRR should be informing the Commissioners?

As noted by Dr. Ferrante in the email trail below, NRR is not a monolithic institution. Specifically, NRR/DRA has a very different position on the Jocassee/Oconee issue as NRR/DORL. See the attached Non-Concurrence from Melanie Galloway as an example.

I do not know who was at your briefing today, but from the invitation attached to this letter it appears that neither were the key personnel from NRR/DRA (Galloway, Mitman, Ferrante) nor were the authors of the GI-204 Screening Report (Perkins, Bensi, Philip, Sancaktar) invited to attend. It might be helpful to your understanding of the Jocassee/Oconee issue if you were to speak to Ms. Galloway regarding her 2009-04-06 Non-Concurrence, Dr. Ferrante and Mr. Mitman regarding their 2010-03-15 Generic Failure Rate Evaluation for Jocassee Dam, and Richard Perkins regarding his ordeal in routing and releasing the screening analysis for GI-204 on flooding due to upstream dam failures.

After over 60 years of military service, Admiral Rickover noted:

A major flaw in our system of government, and even in industry, is the latitude to do less than is necessary. Too often officials are willing to accept and adapt to situations they know to be wrong. The tendency is to downplay problems instead of actively trying to correct them.

The NRC first identified the undersized flood wall at Oconee Nuclear Station in March 1994. It is my concern that the reason this issue is taking more than two decades to address is that Division Directors at NRR have been willing to accept and adapt to situations they know to be wrong. As noticed by Ms. Galloway in April 2009, the tendency in NRR was to downplay the Jocassee/Oconee problem instead of actively trying to correct it. The public looks to the NRC Commissioners to curtail this "latitude to do less than is necessary" and to ensure the NRC staff transparently addresses concerns in a timely manner.

I appreciate you taking an interest in this issue and requesting a briefing by NRR. I am concerned, however, that your briefing might not have adequately detailed the vulnerabilities faced at Oconee.

V/r,

Larry Lawrence S. Criscione Reliability & Risk Analyst RES/DRA/OEGIB 573-230-3959

If a subordinate always agrees with his superior, he is a useless part of the organization.

From: Ferrante, Fernando

Sent: Thursday, November 15, 2012 1:58 PM

**To:** Criscione, Lawrence **Cc:** Mitman, Jeffrey

Subject: RE: Lack of Transparency Impeding Resolution of Flooding Concerns at Oconee

In understand, and I think the folks who were involved in it understand as well. I just worry that other folks will look at our affiliations and assume "NRR" means the specific folks listed in the letter.

From: Criscione, Lawrence

Sent: Thursday, November 15, 2012 11:42 AM

**To:** Ferrante, Fernando **Cc:** Mitman, Jeffrey

Subject: RE: Lack of Transparency Impeding Resolution of Flooding Concerns at Oconee

Thanks Fernando. Jeff sent me the PSA and PSAM papers last month.

When I use "NRR" I mean the dominant position that won out. Hopefully most people understand that in an agency of 4000 people there is no one true NRC position or one true NRR position. Over the past five years it has bothered me to no end that a legitimate FOIA exemption is "pre-decisional information" and that the NRC is able to use it to conceal the internal debate process. I think the public should be able to FOIA the varying NRC positions on issues and to understand how things are internally debated and decisions arrived at.

From: Ferrante, Fernando

Sent: Thursday, November 15, 2012 8:04 AM

**To:** Criscione, Lawrence **Cc:** Mitman, Jeffrey

Subject: RE: Lack of Transparency Impeding Resolution of Flooding Concerns at Oconee

Larry,

Thanks for the opportunity to review this letter. For the most part, the facts related to activities I am directly aware of are correct. Regarding the Information Notice (IN) that NRR authored on dam failure probabilities, I will give you some more background information that will hopefully help further clarify the discussion.

The IN came as a direct result of the Oconee/Jocassee issue. Jim Vail, a retired NRR/DRA/APOB staff, was in charge of developing it (with support from the NRR staff in charge of releasing generic communications in NRR/DPR/PGCB) under guidance from Melanie Galloway, then NRR/DRA Deputy Director. Sometime in 2009, I took over the responsibility of re-writing and issuing the IN (in the same manner I was tasked with rewriting NRR's original submittal to RES regarding the creation of what would eventually become GI-204). Since the beginning, there was a lot of resistance and internal struggle regarding this IN. In order to have the IN released I made sure to build consensus between NRR/DRA, NRR/DE, RES/DRA (which had produced an internal dam failure report which supported the information that eventually went into the IN), and others. As more NRC Offices lined up to be included in the IN, the concurrence process started to take longer and this ended up indeed being an exceedingly long turnover for a generic communication. The GI-204 process continued in parallel until it became bogged down with some of the issues you described in the letter. At some point a presentation was made in an NRR LT/ET meeting, and the directive for the IN became to coordinate its release with the release of the GI-204 report. Because of the delays in the GI-204 report, this added another 6 months to a year of the release of the IN itself. At some point, when it became clear both releases were imminent, I was asked if the IN should be reclassified as "NON-PUBLIC/SECURITY RELATED," which I rejected on the basis that no information was contained in the IN which was covered in both NRR and NRC guidance regarding the withholding of information. Hence, the IN was eventually released publicly.

I should add that, as part of an effort to publicly release and discuss information that was created during the development of the dam failure report by RES/DRA, two papers were submitted, accepted, and presented at PRA conferences (the most recent in Helsinki, 2012) with concurrence from both NRR/DRA and RES/DRA staff (I can send these papers to you if you are interested). Both papers were reviewed internally and, similar to the IN, contained no information that went against guidance regarding withholding of information. Both papers relied in part on data developed by the US Army Corps of Engineers (USACE) which does restrict public release of certain portions of their dam databases, but we followed their guidelines and contacted USACE to make sure no inadvertent release was made. This papers follow the same methodology discussed in the internal NRR/DRA document you referred to in the letter (ML100780084) which, to my knowledge, is the closest we have come to a more official position on the dam failure rate issue (which was, at least in part, the intent I had when the document was created).

I'm sharing the above information to make sure that readers who are totally unfamiliar with the issue (inside or outside of NRC), get a clear picture of how NRR/DRA dealt with some of the issues we were faced during the Oconee/Jocassee issue. In several parts of the letter, certain positions regarding the release of information or level of importance the issue deserved are attributed to "NRR" as a whole (e.g., "...there was a strong push by NRR to force RES to remove all OUO-SRI material from the screening report for GI-204.") which I don't think were shared by all staff or Divisions within NRR. I am concerned this may be misconstrued by readers who are

completely unaware of the challenges the Oconee/Jocassee issue presented to the technical staff to mean all staff within NRR shared these positions.

Thank you,

Fernando Ferrante, Ph.D.
Office of Nuclear Reactor Regulation (NRR)
Division of Risk Assessment (DRA)
PRA Operational Support Branch (APOB)
Mail Stop: 0-10C15

Phone: 301-415-8385 Fax: 301-415-3577

From: Criscione, Lawrence

Sent: Wednesday, November 14, 2012 10:23 AM

To: Zimmerman, Jacob; Vrahoretis, Susan

Cc: Beasley, Benjamin; Coe, Doug; Correia, Richard; Galloway, Melanie; Mitman, Jeffrey; Ferrante, Fernando; Wilson,

George; Leeds, Eric

Subject: FW: Lack of Transparency Impeding Resolution of Flooding Concerns at Oconee

Jacob/Susan: Please forward the attached letter to the Commission staff whom you believe should be aware of it.

I have copied on this email some of the NRR staff mentioned in the letter. Please let me know if I am misportraying any of your positions. Please feel free to forward this letter to whomever you believe needs to see it.

V/r, Larry Criscione 573-230-3959

From: Criscione, Lawrence

Sent: Wednesday, November 14, 2012 9:15 AM

To: 'valerie\_manak@epw.senate.gov'; 'nathan\_mccray@epw.senate.gov'

Subject: Lack of Transparency Impeding Resolution of Flooding Concerns at Oconee

Please see the attached letter to the Senate Committee on the Environment & Public Works.

1412 Dial Court Springfield, IL 62704

Barbara Boxer, Chairman
US Senate Committee on the Environment & Public Works
410 Dirksen Senate Office Bldg.
Washington, DC 20510-6175

### Dear Senator Boxer:

There are three reactors in Oconee County, South Carolina which face a risk of meltdown and containment failure that is highly similar to the accident which occurred in Japan in March 2011. The staff of the US Nuclear Regulatory Commission has known about these risks since 2007 but has yet to adequately address the issue. I am writing to you because the Commissioners of the NRC failed to bring up the three Oconee Nuclear Station reactors during their March 15, 2012 testimony at the US Senate Committee on the Environment & Public Works hearing and because it is unclear to me whether or not the Commissioners are fully aware of the vulnerabilities at Oconee.

The vulnerability posed to the reactors concerns a catastrophic failure of Jocassee Dam, which is upstream of the Oconee Nuclear Station. The NRC has known since 2006<sup>1</sup> that the flood wall at Oconee Nuclear Station is 7 to 12 feet too low to protect against the predicted flood height that would occur were Jocassee Dam to catastrophically fail. Like the reactors at Fukushima Dai-ichi, the reactors themselves at Oconee and their containment buildings are designed to survive earthquakes and flooding. However, their support systems – that is, the emergency standby equipment needed to safely shut them down and remove decay heat from their cores – are vulnerable to failure due to flooding which overtops their flood walls. The difference between Oconee and Fukushima is the source of the flood: a dam break instead of a tsunami. Aside from that difference, the predicted accidents are eerily similar in both their timing sequence and their probability of an unmitigated release of radioactivity to the surrounding countryside.

On September 18, 2012 I wrote a letter to NRC Chairman Macfarlane detailing my concerns regarding the vulnerability posed by Jocassee Dam to the Oconee reactors. Three days after sending my letter, I was informed by my branch chief that he was directed to fill out a NRC Form 183 on me for not adequately designating my letter as "Official Use Only – Security-Related Information". Four weeks after sending my letter I was informed by the Chairman's

<sup>&</sup>lt;sup>1</sup> See pp. 5-9 of the "Oconee Nuclear Station Integrated Inspection Report 05000269/2006002, 05000270/200602, 05000287/2006002". This report is in the NRC's Agencywide Documents Access and Management System (ADAMS) under "Accession Number" <u>ML061180451</u>. Most of the documents I refer to in this letter are non-public and the most efficient way to request them from the NRC is to refer to the ADAMS Accession Number.

legal counsel that my letter had been referred to the NRC's Office of the Inspector General. Other than these two instances, I have not had any other discussions regarding my letter and am unsure if the Chairman or any of the other Commissioners have read my letter or are aware of the details of my concerns.

I have been directed by the NRC not to further distribute my 2012-09-18 letter because it is not properly designated. I have also been directed to no longer send NRC documents to Congressional staffers without going through my chain of command and the NRC's Office of Congressional Affairs. However, I did copy you on that 2012-09-18 letter, and Valerie Manak and Nathan McCray of the E&PW staff should have electronic copies of it.

Since becoming involved in the Jocassee/Oconee issue in 2007, the NRC's Office of Nuclear Reactor Regulation (NRR) has designated all internal and external correspondence regarding this issue as "Official Use Only — Security-Related Information". This designation not only prohibits the American public from knowing about the grave risks which Jocassee Dam poses to the reactors at Oconee, but, as I will explain below, this designation has also inhibited internal discussion of these concerns within the NRC.

In a September 26, 2008 letter to the US Nuclear Regulatory Commission (ML082750106), Duke Energy provided a harrowing timeline of what would occur at the Oconee Nuclear Station (ONS) were Jocassee Dam to catastrophically fail. Despite the fact that this time line appears in a Wikipedia article on Oconee Nuclear Station, since the NRC considers the Duke Energy letter to be "Official Use Only — Security-Related Information" I cannot quote the letter here. But the scenario provided in the 2008-09-26 Duke Energy letter is essentially the scenario that occurred at Fukushima Dai-ichi except, instead of a tsunami being the source of water overtopping the known inadequately sized flood wall, the source of water at ONS is a flood resulting from the failure of Jocassee Dam.

Prior to the 2011-03-11 tsunami, it was believed that the annual probability of a 45 foot tall tsunami reaching Fukushima Dai-ichi was on the order of once in every 100,000 years. It is now widely held that the annual probability is more likely around once in every 1,000 years.

In the 1980's it was believed the annual probability of Jocassee Dam failing was on the order of one chance in 100,000.<sup>2</sup> However, by 2007 the US NRC believed the actual number was more on the order of one chance in 10,000.<sup>3</sup>

When the five Commissioners testified before your committee on March 15, 2012, members of the <u>staff</u> at the US NRC believed that the three reactors at the Oconee Nuclear Station faced a risk eerily similar to what occurred at Fukushima Dai-ichi. Yet none of the Commissioners mentioned that fact when Senator Barrasso brought up the Union of Concerned Scientists'

<sup>&</sup>lt;sup>2</sup> 1.3E-5/year was the failure frequency Duke Energy used in some of its risk assessments.

<sup>&</sup>lt;sup>3</sup> 2.9E-4/year is the failure rate the NRC has calculated for large rock-filled dams similar to Jocassee.

report on the vulnerability of US plants to Fukushima type disasters. Were the Commissioners withholding information from your committee? I don't believe so. I think what actually has happened is that crucial information has been withheld from them. They cannot testify before Congress about vulnerabilities of which they themselves have not been made fully aware.

To me, the most important tool the public has for ensuring good regulation and safety is accurate information. In a democratic republic such as ours, openness and transparency are essential in providing our citizens and their elected officials with the accurate information they need to make informed decisions.

To my knowledge, concerns that the flood wall at the Oconee Nuclear Station was too small first surfaced internally at Duke Energy in late 1993 and first made it to the NRC's attention in February 1994. The NRC dismissed the concerns in September 1994 as "not credible" because of an inappropriately low assumption regarding the failure rate of Jocassee Dam.

The issue regarding the inadequately sized flood wall resurfaced in March 2006. While attempting to defend a violation he had written against Duke Energy for inadequately controlling a two year breach in the flood wall (ML061180451), one of the NRC Resident Inspectors at Oconee Nuclear Station began researching the regulatory requirements for the flood wall.

In 2007 NRR's Division of Risk Assessment (NRR/DRA) determined that the annual failure probability of dams similar in construction to Jocassee is around 2.5E-4/year, which equates to a chance of once in every 4000 years (ML100780084).<sup>4</sup> These might seem like good odds, but, given that a catastrophic failure of Jocassee Dam will lead to a Fukushima scenario in South Carolina, these odds make the risk of a significant accident and radiation release at Oconee Station about 100 times greater than the risks associated with a typical US commercial nuclear reactor.

In 2008 the NRC sent Duke Energy a 10CFR50.54(f) request (ML081640244) to obtain the necessary information to adequately determine if the risks posed to Oconee Nuclear Station by Jocassee Dam were acceptable. A 10CFR50.54(f) request is a rare occurrence and it undoubtedly got the attention of the Commissioners. However, because by this time the NRC was stamping all documents concerning Jocassee Dam as "Official Use Only – Security-Related Information" (OUO-SRI), it did not get the attention of the public.

My primary reason for bringing the Jocassee/Oconee issue to your attention is because, to me, it is an example of how lack of discipline regarding transparency has allowed a significant issue to go uncorrected for over six years and counting, with the current deadline for resolution still four years away. I believe that NRR's stamping of all documents concerning Jocassee Dam as

<sup>&</sup>lt;sup>4</sup> ML100780084 is dated 2010-03-15. This is the formalized version of research and calculations performed in 2007 by Ferrante and Mitman of NRR/DRA.

"OUO-SRI" has not only prevented the public scrutiny necessary for our democratic and republican institutions to properly function, but has also inhibited the internal flow of information within the NRC and thereby has been detrimental to both public safety and security.

Duke Energy's response to the NRC's 10CFR50.54(f) request was, like the original request, withheld from the public under the guise of security. This response is the document which contains the Fukushima-style timeline regarding what would occur to the three reactors at Oconee were Jocassee Dam to catastrophically fail.<sup>5</sup> It is unclear to me whether or not any of the Commissioners reviewed this document. It is ludicrous to expect the Commissioners to review every piece of correspondence received by the NRC – they have a staff of over 4,000 federal employees to assist with that. But I would assume that all important issues make it to their attention during their periodic briefings. However, based on the documents I have reviewed, I question the exact level of detail which they have received regarding the Jocassee/Oconee issue during their briefings from NRR.

On February 3, 2009 Commissioner Peter Lyons traveled to South Carolina to tour Jocassee Dam and Oconee Nuclear Station. In the briefing book prepared from him by NRR (ML090280474) there is a 25-line summary detailing the flooding issues. The 2008-08-15 10CFR50.54(f) request is mentioned in this summary. However, what did not make it into this summary is NRR/DRA's estimate that the failure rate of Jocassee Dam is about 2.5E-4/year and that in their 2008-09-26 response to the 20CFR50.54(f) request Duke Energy admitted that a catastrophic failure of Jocassee Dam would likely lead to the meltdown of all three reactor cores at the Oconee Nuclear Station and possibly the failure of the containment structures.

On February 20, 2009 two engineers from NRR's Division of Risk Assessment, Fernando Ferrante and Jeffrey Mitman, began routing an Information Notice (IN 2012-02) concerning the risks posed to some nuclear reactor sites due to dam failures. The purpose of this information notice (ML090510269) was:

... to alert addressees of a potentially nonconservative screening value for dam failure frequency that originated in 1980's reference documents which may have been referenced by licensees in their probabilistic risk assessment (PRA) for external events. Using a nonconservative screening value for dam failure frequency to evaluate the need for an additional detailed analysis may result in underestimating the risks to the plant associated with external flooding or loss of heat sink from the failure of upstream and

<sup>&</sup>lt;sup>5</sup> I cannot quote from Duke Energy's 2008-09-26 letter without the NRC claiming that this letter to you is now "Official Use Only – Security-Related Information" which must only be provided through their Office of Congressional Affairs (NRC/OCA). I respectfully suggest that your staff request ML082750106 and ML112430114 from NRC/OCA. The Fukushima-style timeline appears on p. 10 of attachment 2 of ML082750106 and on pp. 8-9 of ML112430114. It is also quoted on the fourth page of my 2012-09-18 letter to NRC Chairman Macfarlane.

downstream dams or levees. The NRC expects that recipients will review the information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems.

Please note that this Information Notice was being routed more than two years <u>prior</u> to Fukushima occurring. That is, two years prior to the 2011-03-11 flooding-induced triple reactor accident at Fukushima, the NRC was aware that certain US plants might face a similar scenario were dams upstream of them to fail. However, this information notice was not released until more than three years later (March 5, 2012 which was nearly a year <u>after Fukushima</u>). The reason this information notice took more than three years to route was because of the controversial nature of NRR's indecisiveness regarding how to address the flooding vulnerabilities at Oconee and also because of the debate over whether dam break effects on nuclear reactors is a security concern which needs to be withheld from the American public.

in the past year, I have encountered many people, both within the NRC and external, who are adamant that the vulnerability which a failure of Jocassee Dam poses to the reactors at Oconee is a security liability which must be kept from the public. Although I am sympathetic to the desire not to broadcast our security liabilities, I have no tolerance for using concerns over security as a pretext for withholding important <u>safety</u> vulnerabilities from the public. When the Jocassee/Oconee issue first came to light in an April 28, 2006 publicly available inspection report, the issue was not being withheld. At some point in 2007 the NRC, either at the request of Duke Energy or on their own accord, decided to begin withholding from the public all correspondence regarding the safety liability posed by a failure of Jocassee Dam.

Is Jocassee Dam a credible target for terrorists and/or saboteurs? I don't know. But it does make sense to me that, in 2007, the NRC might reasonably want to withhold information regarding Jocassee/Oconee while they determined whether or not a security vulnerability existed and whether or not security measures were required to be put into place to protect it. What does not make sense to me, however, is that in 2012 we are <u>still</u> withholding from the public information on a vital safety concern under the guise of "Security-Related Information". After five years, have we not addressed the security concerns?

It is unreasonable to me that a government agency is allowed to withhold a significant public safety concern from the public under the guise of security, yet then not, after 5 years, do any meaningful study of the issue to determine if, in fact, a security vulnerability does exist and what must be done to remove it. Is there a security concern or isn't there? If there is, why, after five years, has it not been addressed? If there is not, then why, after five years, are we still withholding vital information from the public under the guise of security?

In April 2009, NRR was in the process of responding to Duke Energy regarding resolution of the Jocassee/Oconee issue. As part of the routing of that response, NRR's Division of Risk Assessment was asked for their concurrence. The Deputy Director of NRR/DRA, Melanie Galloway, refused to initial her concurrence block and instead submitted a Non-Concurrence

form (ML09117010) on April 6, 2009. Like all documents regarding Jocassee/Oconee, Ms. Galloway's Non Concurrence form is stamped "OUO-SRI" and I cannot quote from it. But a deputy division director submitting a Non-Concurrence is rare; this is a process that is mainly used by lower level staff, and even for them it is rare. Had Ms. Galloway's Non-Concurrence form — which in no way concerns security vulnerabilities — been publicly available, it would have likely gained the attention necessary to get the Jocassee/Oconee issue resolved in a timely manner.

Had intervener groups such as the Union of Concerned Scientists been given access to Melanie Galloway's Non-Concurrence form via publicly available ADAMS, then they would have likely been able to counter the pressure which Duke Energy was placing on NRR. With dozens of their own engineers, lawyers and hired contractors, Duke Energy was able to convince NRR that, in order for improvements to Oconee's flooding defenses to be required, the NRC needed to probabilistically show that Jocassee Dam placed an inordinate risk upon the three reactors at Oconee. Pressure from the Union of Concerned Scientists and other intervener groups, however, would have likely convinced NRR that, per Duke Energy's operating license for the Oconee reactors, in order for Duke Energy to be allowed to continue to operate the three reactors at Oconee they needed to deterministically show that these reactors were adequately protected from a catastrophic failure of Jocassee Dam.

On April 9, 2009 Chairman Jaczko was briefed by NRR on the Jocassee/Oconee issue. I don't exactly know what was said at this briefing. The briefing slides (ML091030172) mentioned that new calculations concerning the failure frequency of Jocassee Dam suggested that core damage frequency (i.e. the annual probability that a meltdown will occur) for the reactors at Oconee might be non-conservative by an order of magnitude. What is not mentioned in the slides is Duke Energy's Fukushima-style scenario (contained in their 2008-09-26 letter) of what would occur at Oconee Nuclear Station were Jocassee Dam to catastrophically fail.

On January 6, 2010 the leadership of NRR met to discuss the Jocassee/Oconee issue (ML100280954). The purpose of the meeting was whether NRR should issue an order to Oconee requiring them to, in a timely manner, mitigate the risks posed by a failure of Jocassee Dam, or whether NRR should merely issue another 10CFR50.54(f) request for information and potentially follow up with an order later. The "Cons" listed for the "10CFR50.54(f) option" were that it was not as enforceable as an order and that it had a slower response time for resolution of the external flooding issue. The "Cons" listed for the "order option" were that there was the potential for a public hearing and that an order required signature authority. In other words, to go the route of an order, the Commission and the public would need to be made aware of the risks which Jocassee Dam posed to Oconee. Despite the slower response time, NRR opted to go the route of the 10CFR50.54(f) letter and avoid the Commission and public scrutiny an order would entail.

In February 2010 – using information provided by Ferrante and Mitman of NRR/DRA – George Wilson submitted an informal memorandum to the NRC's Office of Nuclear Regulatory

Research (RES) requesting that a Generic Issue be assigned to investigate whether external flooding concerns, similar to those posed by Jocassee Dam to the three reactors at Oconee, existed elsewhere in our nation's fleet of 104 commercial reactor plants. George Wilson was the Dam Safety Officer in NRR's Division of Engineering (NRR/DE). At the time, we (i.e. RES/DRA/OEGIB) deemed Mr. Wilson's February 2010 memo to be too speculative and inflammatory to make it an official agency record; however, I have a copy of it if your committee staff requires it. This memo is an example of just how serious mid-level staffers in the various divisions of NRR viewed the Jocassee/Oconee issue. Keep in mind, this is over a year prior to the Fukushima accidents, yet the staff within NRR were presciently predicting the nuclear catastrophe that could occur were an inadequately sized flood wall to be overtopped allowing the flooding of the standby shutdown equipment necessary to remove decay heat from the reactor cores and containment buildings. Unfortunately it does not appear the managers at NRR were providing the Commissioners all the details of the NRR staff's concerns.

On June 22, 2010 NRR issued a Confirmatory Action Letter to Duke Energy (ML101730329) requiring them to (1) by August 2, 2010 provide an estimate of the volume of water impounded by the Lake Jocassee Dam to be used for flood height analyses at Oconee Nuclear Station, (2) by November 30, 2010 provide a list of modifications to be made at Oconee to adequately protect the plant from flooding due to a failure of the Lake Jocassee Dam, and (3) by November 30, 2011 have the provided modifications in place.

On July 19, 2010, NRR sent a formal memo to RES requesting a Generic Issue on flooding of nuclear power plant sites following upstream dam failures (ML101900305). In August 2010, the Operating Experience and Generic Branch (RES/DRA/OEGIB) of the Division of Risk Assessment in the NRC's Office of Nuclear Regulatory Research began working on a screening analysis report for what would become GI-204 (Generic Issue 204). In my opinion, the 2010-07-19 memo and the attendant screening report are evidence of the NRC staff identifying a significant vulnerability and striving to get it addressed. Please note that this issue was being forwarded without the hindsight of the Fukushima accident and entirely due to the analysis of the NRR staff and their determination to pro-actively address an issue significant to the safety of about a fifth of our nation's nuclear reactor plants.

On August 2, 2010, Duke Energy provided the NRC with an estimated volume of water to be assumed impounded by the Lake Jocassee Dam. Their estimate was a "sunny day" estimate. For reasons not understood by myself and other staff engineers at the NRC, Duke Energy believes that a failure of Jocassee Dam during an inordinately heavy rainfall (such as the one experienced in Senator Sanders' state in 2011 as the remnants of Hurricane Irene blew over parts of Vermont and New York) is not a credible scenario. In January 2011, Jeff Mitman of NRR/DRA challenged this assumption through the Non-concurrence process (ML110260443).

On November 29, 2010, Duke Energy informed the NRC that it was giving itself an additional 6 months to provide the list of modifications needed to protect the three reactors at Oconee from a failure of the Lake Jocassee Dam (ML103490330). Despite this issue being over four

years old in its current incarnation (and over 16½ years old from its 1994 incarnation), NRR did not object to Duke's 6 month extension.

By March 10, 2011 (the eve of the earthquake and tsunami in Japan), RES/DRA/OEGIB had drafted its screening analysis report for GI-204 and submitted it for routing. As you are well aware, on March 11, 2011 flooding induced from a tsunami disabled the emergency equipment at the Fukushima Dai-ichi reactors leading to the meltdowns of three reactor cores and the destruction of the buildings housing their containments. In the NRC's Office of Nuclear Regulatory Research, we assume that the accident in Japan would add a sense of urgency to the approval of GI-204 and the addressing of the flooding concerns at Oconee. Instead, it inordinately delayed both. I am in no position to completely understand what occurred, but from my second-hand vantage point it appears that the management at NRR viewed the true vulnerability exposed by Fukushima not to be the flooding issue at Oconee but rather their multi-year mismanagement of getting it addressed.

On April 29, 2011 Duke Energy provided the NRC the list of modifications it intended to do at Oconee to protect against a failure of Jocassee Dam (ML111460063). In this letter, Duke Energy extended the NRC's due date for implementation of the modifications from Nov. 30, 2011 to a nebulous commitment of 30 months after the approval of the modification plans by the NRC and FERC (the Federal Energy Regulatory Commission).

So, as of April 29, 2011 – seven weeks after the Fukushima accidents – the NRC's deadline for adequately protecting the Oconee reactors from a failure of Jocassee Dam had slid from November 30, 2011 to some indefinite time in roughly mid-2014.

As noted many times to your committee, the NRC has issued orders to all 104 reactor plants to make modifications based on the lessons learned from the Fukushima accident. What has likely not been noted to your committee is that the NRC has allowed Duke Energy to slide their mid-2014 due date for protecting Oconee from a Jocassee Dam failure to 2016 in order to conform with the Fukushima deadlines given to the other US reactor plants. But the three reactors at Oconee are different from the rest of the US fleet. Unlike the other 101 reactors, the three reactors at Oconee had a known external flooding concern that, over nine months prior to the Fukushima accident event occurring, had a November 30, 2011 deadline set (i.e. the 2011-11-30 deadline was established in a 2010-06-22 letter which was delivered to Duke Energy nearly 9 months prior to the 2011-03-11 tsunami occurring). The 2016 deadline is reasonable for the other 101 reactors because this was a new issue for them. But for the three reactors at Oconee, by the time the post-Fukushima orders came out they were already 5 years into the external flooding issue and had a deadline for modifications already set. Does it make sense that their already generous deadline be extended to match everyone else's?

The history I have provided you is little known within the NRC. Because of supposed security concerns, the Jocassee/Oconee issues are not discussed at All Hands Meetings. The issues are not discussed in sessions at the NRC's annual Regulatory Information Conference (RIC). The

issues do not appear in articles of Platts, or at American Nuclear Society conferences, or in online nuclear discussion groups, or in Union of Concerned Scientists blogs. Because of the OUO-SRI designation of all correspondence regarding this issue, there is virtually no internal oversight within the NRC to make sure NRR is properly handling this issue. And because of the OUO-SRI designations there was a strong push by NRR to force RES to remove all OUO-SRI material from the screening report for GI-204.

Like briefing packages for the Commissioners, Generic Issue screening reports are typically released to the public as part of the NRC's commitment to transparency. But it must be remembered that these reports are not written for public consumption – they are written for internal use. Briefing packages to the Commissioners are written to concisely inform the Commissioners of important points on key issues. Generic Issue screening reports are written to inform the screening panel members of the issues. Being that the Commissioners and the NRC staff are all authorized to view OUO-SRI documents, why would we water down our internal reports by removing all OUO-SRI material and thereby share less information with ourselves? I do not know the answer to that, but I have a suspicion.

When NRR knows a document – such as a Generic Issue screening report or a Commissioner briefing package – is going to eventually be released to the public, they prefer it be released without redactions. Redactions are a "red flag" for intervener groups like Greenpeace and the Union of Concerned Scientists. If the Fukushima-style timeline from Duke Energy's 2008-09-26 letter were to appear in a briefing book for Commissioner Apostolakis' trip to Oconee, then NRR knows that, when that briefing book is eventually released with a paragraph from the "External Flooding" section redacted, David Lochbaum will be asking his connections on Capitol Hill to request the redacted section. To avoid this, NRR essentially "pre-redacts" it by not even including it in the first place. Unfortunately, in doing this they keep the Commissioners from obtaining vital information that the Commission needs to know to make important decisions.

And likewise for the screening panel for Generic Issue 204. Richard Perkins, the lead author of the "Screening Analysis Report for the Proposed Generic Issue on Flooding of Nuclear Power Plant Sites Following Upstream Dam Failures" (ML112430114), was under constant pressure from NRR to remove the 2008-09-26 Duke Energy timeline from his report (he has a foot tall stack of internal NRC email correspondence to document it). Richard Perkins came to the NRC from the Department of Energy where he worked on the annual certification process for assuring the safety and reliability of America's nuclear weapons. He is a graduate of the National War College and was used to working with Top Secret and Special Compartmentalized Information (TS-SCI) on a daily basis. To him, the notion that the screening panel for GI-204 did not have a "need to know" the accident timeline from Duke Energy's 2008-09-26 letter was absolutely ludicrous. He has rhetorically asked me on many occasions, "Why would we want to redact this information from our internal report?"

On September 14, 2012 Richard Perkins submitted a letter to the NRC's Inspector General alleging that the NRC had "intentionally mischaracterized relevant and noteworthy safety

information as sensitive, security information in an effort to conceal the information from the public." I assume the NRC's Office of the Inspector General (OIG) is investigating his complaint but am unaware of their findings. Given the NRC OIG's proclivity for narrowly focusing on procedural processes and not questioning the broader intent of those processes, I am doubtful that the OIG investigation will be conducted with a broad enough questioning attitude to adequately investigate Mr. Perkins' claims.

On September 12 & 13, 2011, Commissioner Apostolakis visited Jocassee Dam. In the NRR prepared briefing book for that visit (ML11244A024), the 25 line description of the External Flood section provided to Commissioner Lyons had shrunk to 9 lines. Although Commissioner Apostolakis' visit was a mere six months after Fukushima, no mention of Duke Energy's Fukushima-style timeline from their 2008-09-26 letter was made in the briefing book. Nor was there any mention of the failure probability of Jocassee Dam being in the same range as the probability of a 45 foot tsunami hitting the Fukushima Dai-ichi site.

On February 1, 2012 Commissioner Svinicki visited Jocassee Dam. NRR's briefing book for that visit (ML12026A549) contains a whole page on the External Flooding issue, yet does not mention the facts that (1) the issue has gone on for six years, (2) the Duke Energy accident timeline is very similar to Fukushima, (3) the flooding probability is similar to Fukushima, (4) NRR had assigned Duke Energy a 2011-11-30 deadline nine months prior to Fukushima, (5) seven weeks after Fukushima that 2011-11-30 deadline was extended by Duke Energy to mid-2014, and (6) the deadline for Duke Energy's propose modifications to their flooding defenses was later moved to 2016 to match the Fukushima action plan for all the plants without known flooding hazards. These are things that, were I Commissioner Svinicki, I would like to know before visiting Oconee – and, for that matter, before testifying before your committee on March 15, 2012.

On February 16, 2012 Duke Energy came to NRC headquarters for a "Drop-in Visit" with Bill Borchardt, the NRC's Executive Director for Operations (EDO). NRR's briefing book for that visit (ML12039A217) contains a page on the External Flooding issue which is similar to the one provided to Commissioner Svinicki. I do not know if Mr. Borchardt is aware of the true risk that Jocassee Dam poses to the three reactors at Oconee, but if all he knows is the summary in his briefing book, then there is much which he is unaware of yet needs to know.

On March 15 all five Commissioner testified before your committee at the Hearing on Post-Fukushima U.S. Reactor Safety. None of the Commissioners mentioned the fact that three reactors in Oconee County, South Carolina face a similar risk as was faced by the reactors at Fukushima Dai-ichi on March 11, 2011. I believe they did not mention it to your committee because it has been kept from them themselves.

On July 11, 2012 Duke Energy again visited Mr. Borchardt for a "Drop-in Visit" and on August 7, 2012 they dropped in on the Commissioners. As before, the briefing books supplied for these

visits (ML12188A071 & ML12206A325) did not mention the true risks posed by Jocassee Dam or the delays in resolving these risks.

If you believe the issues I have brought forward in this letter are of interest to your committee, then I respectfully suggest your staff seek answers to the following:

- 1. What is the official NRC determination as to the best estimate of the annual failure frequency of Jocassee Dam? How does this failure frequency compare to the annual frequency of a tsunami similar to the one in Japan on 2011-03-11 which caused the flooding induced nuclear accident at Fukushima Dai-ichi?
- 2. What is the official NRC position regarding whether or not a catastrophic failure of Jocassee Dam is a credible risk for which Duke Energy must deterministically show that the three reactors at Oconee Nuclear Station are adequately protected?
- 3. What is the official NRC position regarding whether or not the current flooding defenses at Oconee are adequate and what, if any, improvements need to be made?
- 4. What is the official NRC position regarding the most likely accident sequence at Oconee Nuclear Station were Jocassee Dam to catastrophically fail? How does this accident sequence compare to the March 2011 accident at Fukushima?
- 5. Assuming the catastrophic failure of Jocassee Dam, what is the NRC's best estimate of the likelihood that the operators at Oconee Nuclear Station would be able to restore cooling to the reactors prior to the containment buildings failing? What are the differences between the Oconee reactors and the Fukushima reactors that leads the NRC to believe the Oconee operators will be able to successfully restore cooling prior to containment failures? Has the NRC conducted any formal studies to estimate the success rate of Duke Energy's mitigation strategies to prevent containment failures in the event of a catastrophic failure of Jocassee Dam? If so, when were these studies conducted and what were the results?
- 6. Has the US NRC or any federal agency conducted an assessment to determine if Jocassee Dam is adequately protected from terrorist threats? If so, what were the results of the assessments? Is access to Jocassee Dam adequately guarded from terrorist attack? Are the employees at the Jocassee Hydro-Electric Facility screened for inside saboteurs to the same level at which nuclear workers at the Oconee reactors are screened? Is it necessary to continue to withhold from the public vital safety information concerning the risks which a failure of Jocassee Dam poses to the three reactors at the Oconee Nuclear Station?
- 7. Do the Commissioners believe that, prior to their March 15, 2012 testimony before the US Senate Committee on the Environment & Public Works, they were adequately informed of the vulnerability which Jocassee Dam poses to the reactors at the Oconee Nuclear Station?
- 8. When does the US NRC intend to release to the public their correspondence concerning Jocassee Dam and Oconee Nuclear Station? What is the justification for continuing to withhold this information from the American public and from public intervener groups

such as the Union of Concerned Scientists? Does the NRC believe it would benefit from a review of its handling of the Jocassee/Oconee issue conducted by intervener groups?

Enclosed with this letter is a list of NRC correspondence, memos and studies regarding the Jocassee/Oconee issue. As can be seen from the enclosed list, this issue has festered in its current incarnation since 2006 and was originally brought forward to the NRC in 1994. Please note that most of the documents on the enclosed list are being withheld from the American public.

Although I am convinced the risks of a nuclear accident at Oconee are at least an order of magnitude greater than at a typical US reactor plant, I am not yet convinced that these risks are unacceptable. And although I do not know enough about nuclear security to judge whether or not all the security issues have been adequately addressed, at this time I do not believe a credible security threat to Jocassee Dam exists. I am not appealing to your committee with safety or security concerns. My concern is transparency, and how the lack of it has not only impeded this issue from getting the public scrutiny which it requires but may also be impeding this issue from getting the appropriate scrutiny from the Commissioners of the US Nuclear Regulatory Commission.

Very respectfully,

Lawrence S. Criscione, PE

James & Paris

Reliability & Risk Engineer

Operating Experience & Generic Issues Branch

Division of Risk Assessment

Office of Nuclear Regulatory Research

US Nuclear Regulatory Commission

573-230-3959

#### Enclosure

Cc: Senator James Inhofe, Ranking Member, Committee on Environment & Public Works Senator Thomas Carper, Chairman, E&PW Subcommittee on Clean Air & Nuclear Safety Senator John Barrasso, Ranking Member, E&PW Subcom. on Clean Air & Nuclear Safety Senator Sheldon Whitehouse, Chairman, E&PW Subcommittee on Oversight Senator Mike Johanns, Ranking Member, E&PW Subcommittee on Oversight Chairman Allison Macfarlane, US Nuclear Regulatory Commission

Date	ADAMS	Title
1994-FEB-11		Letter from Albert F. Gibson, NRC, to J. W. Hampton, Duke, "Notice of Violation and
		Notice of Deviation (NRC Inspection Report Nos. 50-269/93-25, 50-270/93-25, and
		50-287/93-25)," dated February 11, 1994
1994-MAR-14		Letter from J. W. Hampton, Duke, dated March 14, 1994
1994-OCT-6		Internal NRC memo documenting a meeting between Region II and NRR concerning
		a hypothetical Jocassee Dam failure.
1994-DEC-19		Letter from Albert F. Gibson, NRC, to J. W. Hampton, Duke, "Notice of Violation and
		Notice of Deviation (NRC Inspection Report Nos. 50-269/94-31, 50-270/94-31, and
		50-287/94-31)," dated December 19, 1994
2000-MAR-15		Letter from David E. LaBarge, NRC, to W. R. McCollum, Jr., "Oconee Nuclear Station,
		Units 1, 2, and 3 Re: Review of Individual Plant Examination of External Events (TAC
		Nos. M83649, M83650, and M83651)," dated March 15, 2000
2006-APR-28	ML06118 <b>0</b> 451	OCONEE NUCLEAR STATION - INTEGRATED INSPECTION REPORT
		05000269/2006002, 05000270/200602, 05000287/2006002
2006-AUG-31	[AL080780143	IR 05000269-06-016, IR 05000270-06-016, IR 05000287-06-016, pn 03/31/2006,
		Oconee Nuclear Station - Preliminary White Finding
2006-OCT-5	ML062890206	, , , , , , , , , , , , , , , , , , , ,
2006-NOV-22	ML063260282	IR 05000269-06-017, IR 05000270-06-017, IR 05000287-06-017, Final Significance
		Determination for a White Finding and Notice of Violation, Duke Energy Carolinas,
		uc
2006-DEC-20	ML063620092	
		Finding and Reply to Notice of Violation; EA-06-199
2007-JAN-29	ML070440345	,
2007-FEB-5		Letter from Bruce H. Hamilton, Duke, to NRC, "Seismic Fragility Study"
2007-FEB-22	ML070590329	Manual Chapter 0609.02 Appeal Panel Recommendations (Oconee Reply to a
		Notice of Violation and White Finding (EA-06-199))
2007-MAR-1	ML070610460	Oconee Appeal Panel Review of Manual Chapter 0609.02 Appeal Panel Review of
		Oconee Standby Shutdown Facility White Finding (EA-06-199)
2007-MAY-3	ML072970510	Oconee, Units 1, 2 and 3 - Request for NRC to Review Appeal of Final Significance
		Determination for SSF Flood Barrier White Finding
2007 JUN-22	ML071580259	Consideration of New Information Associated with a Final Significance
		Determination for a White Finding - Oconee NS
2007-JUN-28		Phone call between the NRC and Duke Energy
2007-OCT-1	ML072770765	10/01/2007, Slides with Notes for Final Regulatory Assessment of Oconee Flood
		Barrier Issue
2007-OCT-1	ML072770775	Dam Failure Information
2007-OCT-1		Questions and Answers Related to Oconee Flood Barrier
2007-NOV-20	ML073241045	Reconsideration of Final Significance Determination Associated with Standby
		Shutdown Oconee Facility Flood Barrier White Finding
2008-MAY-19	ML081350689	
		Chairman Klein And Commissioner Jaczko On May 21, 2008
2008-JUN-23	ML082390669	Proposal for a Risk Analysis of the Failure of the Jocassee and Keowee Dams to
		Assess the Potential Effects on the Safe Shut Down Facility of the Oconee Nuclear
		Station, South Carolina
2008-JUL-28	ML082120390	Oconee Nuclear Station - Revisions to the Selected Licensee Commitments Manual
		(SLC)

Date	ADAMS	Title ·
2008-AUG-15	ML081640244	Information Request Pursuant to 10 CFR 50.54(F) Related to External Flooding,
		Including Failure of the Jocassee Dam at Oconee Nuclear Station, Units 1, 2, and 3
		(TAC Nos. MD8224, MD8225, and MD8226)
2008-AUG-26	ML082390690	
		the Potential Effects on the Safe Shutdown Facility at the Oconee Nuclear Station
2008-AUG-28	ML083300427	08/28/2008 - Summary of Closed Meeting to with Duke Energy Carolinas, LLC to
		Discuss the August 15, 2008, 50.54(f) Letter on External Flooding (TAC Nos.
		MD8224, MD8225, and MD8226)
2008-AUG-28	ML082550290	Meeting with Duke Energy Carolinas, Oconee Flood Protection and the Jocassee
		Dam Həzard
2008-SEP-6	ML082250166	•
		Failure Frequencies for the Jocassee Pumped Storage Dam (Jocassee Dam) at the
3000 CED 36	ML082750106	Oconee Nuclear Station and Potential Generic Implications  Oconee Nuclear Station and Potential Generic Implications
2008-SEP-26 2008-NOV-5	ML091060761	
2008-140 4-3	1010031000701	including failure of the Jocassee Dam, at Oconee Nuclear Station, Units 1, 2, and 3
		middsing randra of the sociosee Som, of Scottee Hadical Station, Sints 1, 2, and 3
2008-NOV-5	ML083390650	11/05/2008 Meeting Slides, "Oconee Site Flood Protection," NRC Meeting with
		Duke Energy Carolinas, LLC
2008-DEC-4	ML091420319	12/04/2008 Meeting Summary, Meeting to Discuss External Flooding at Oconee
		Nuclear Station (Reissuance, with Error on Page 3 Corrected)
2008-DEC-4	ML090480044	Oconee Nuclear Station, External Flood NRR Meeting, Rockville, MD, December 4,
2000 550 3	141 000000474	2008
2009-FEB-3	ML090280474	Briefing Package for Commissioner Lyons Visit to Oconee on February 4, 2009
2009-APR-6	ML091170104	Oconee Nuclear Station, Units 1, 2 And 3 - Non-concurrence on Evaluation of Duke
		Energy Carolinas, LLC September 26, 2008, Response to Nuclear Regulatory  Commission Letter Dated August 15, 2008 Related to External Flooding
2009-APR-9	ML091030172	Oconee External Flooding Briefing for Commissioner Jaczko
2009-APR-30	ML090570779	
		September 26, 2008, Response to External Flooding, Including Failure of the
		Jocassee Dam
2009-MAY-11	ML092940769	05/11/2009 Summary of Closed Meeting with Duke Energy Carolinas, LLC, to Discuss
		Preliminary Results of the Recent Inundation and Sensitivity Studies Concerning
		Failure of the Jocassee Dam and Resultant Flooding at Oconee Nuclear Station, 1, 2,
2000 1414 44	1410000000470	and 3
2009-MAY-11	ML090820470	5/11/2009 Notice of Forthcoming Closed Meeting with Duke Energy Carolinas, LLC, to Discuss Sensitivity Studies Concerning Failure of the Jocassee Dam & Resultant
		Flooding at the Oconee Nuclear Station, Unit 1, 2, & 3
2009-MAY-11	ML091380424	
2003 (7,7,1 11	1112032300424	Oconee Flooding Issue
2009-MAY-20	ML091470265	Oconee, Units 1, 2 & 3, Request for Extension of Duke Response Time to Referenced
		Letter
2009-MAY-26	ML091480116	E-mail re Briefing Package for Visit to Jocassee Dam on June 23, 2009
2009-JUN-1	ML091590046	Oconee, Units 1, 2, and 3, Request to Withhold Sensitive Information in
		Presentation Materials Left with Staff
2009-JUN-10	ML091680195	Oconee, Units 1, 2, and 3 - Interim 30-Day Response to Reference 2.

Date	ADAMS	Title
2009-JUN-11	ML091620669	6/11/09 Summary of Closed Meeting with Duke Carolina to Discuss External
		Flooding at Oconee
2009-JUN-25	ML091760072	NRC Site Visit to the Oconee Nuclear Station on June 15, 2009
2009-JUL-9	ML092020480	Oconee, Units 1, 2, & 3, Final 60-Day Response to Reference 2
2009-JUL-28	ML092230608	Oconee, Submittal of Selected Licensee Commitments Manual SLC Revision
2009-AUG-12	ML090570117	Oconee Flood Protection and the Jocassee Dam Hazard Basis for NRC Allowing
		Continued Operation
2009-AUG-27	ML092380305	Oconee, Slides for Closed Meeting Regarding External Flood Technical Meeting On
		August 27, 2009
2009-SEP-25	ML092710344	Site Visit Observation on 09/25/2009 by Joel Munday for Oconee
2009-OCT-28	ML093080034	10/28/09 Slides for Oconee Nuclear Station, Units 1, 2, and 3 - Meeting Slides -
		External Flood NRC Technical Meeting
2009-NOV-30	ML093380701	Oconee Nuclear Station, Units 1, 2, and 3, Oconee External Flood Analyses and
		Associated Corrective Action Plan
2009-DEC-4	ML090680737	12/04/09 Summary of Closed Meeting to Discuss the Duke Energy Carolinas, LLC.,
		09/26/08 Response to NRC's August 15, 2008 50.54(f) Letter on External Flooding at
		Oconee
2010-JAN-6	ML100280954	, ,
		Flooding Issue
2010-JAN-11	ML100150066	•
2010-JAN-15	ML100210199	Oconee, Units 1, 2 and 3 - Additional Information Regarding Postulated External
		Flood Threat issues
2010-JAN-29	ML100271591	Evaluation of Duke Energy Carolina, LLC (Duke), November 30, 2009, Response to
		Nuclear Regulatory Commission (NRC) Letter Dated April 30, 2009, Related to
2010 555 0	MI 100120053	External Flooding At Oconee Nuclear Station, Units 1, 2, And 3 (Oconee)
2010-FEB-8	ML100470053	
2010-FEB-26	ML100610674	Information Oconee, Units 1, 2, & 3, External Flood Revised Commitment Letter
2010-FEB-20 2010-MAR-5		Oconee Nuclear Station, Units 1, 2, & 3, Letter From Duke Energy Carolinas, LLC
2010-WW-2	1410103430047	Regarding External Flood, Response to Request For Additional Information
2010-MAR-15	Mt 100780084	Generic Failure Rate Evaluation for Jocassee Dam Risk Analysis
2010-MAR-18		Prepare Briefing Book and Material for Eric Leeds for the Duke Fleet Meeting on
2010 101711 10	1410100010000	March 18, 2010
2010-APR-14	MI 100760109	Generic Failure Rate Evaluation for Jocassee Dam
		Oconee, Units 1, 2 & 3, Response to Requested Information on the Protection
		Against External Flooding Including a Postulated Failure of the Jocassee Dam
2010-JUN-1	ML101750619	OUO - Communication Plan For Issuance of Confirmatory Action Letter To Duke For
		Oconee - External Flooding June 2010
2010-JUN-3	ML101610083	Oconee Nuclear Station, Units 1, 2, and 3, - External Flood Commitments
2010-JUN-22	ML101730329	
		Address External Flooding Concerns
2010-JUN-29	ML101890803	06/29/2010 Summary of Closed Meeting With Duke Energy Carolinas, LLC, to
		Discuss External Flooding at Oconee
2010-JUL-7	ML101880768	OUO - IR 05000269-10-002, 05000270-10-006, 05000287-10-006; 01/01/2010 -
		03/31/2010; Oconee Nuclear Station Units 1, 2 and 3; Interim Compensatory
		Measures for External Flood
2010-JUL-19	ML101900305	Identification of a Generic External Flooding Issue Due to Potential Dam Failures
- <del>-</del>		• • • • • • • • • • • • • • • • • • • •

Date	ADAMS	Title
2010-AUG-2	ML102170006	Oconee Units 1, 2, & 3, Response to Confirmatory Action Letter (CAL) 2-10-003
2010-OCT-20	ML102910480	NRC Assessment of Oconee External Flooding Issue (October 18, 2010)
2010-OCT-26	ML102990064	NRC Staff Assessment of Duke Energy Carolinas, LLC, Oconee External Flooding Issue (TAC NOS. ME4441, ME4442, and ME4443)
2010-NOV-29	ML103490330	Oconee Nuclear Site, Units 1, 2, and 3, Oconee Response to Confirmatory Action Letter (CAL) 2-10-003
2011-JAN-5	ML110180609	Enclosure 1, Oconee Nuclear Station, Major Project Plans
2011-JAN-10	ML110260443	Non-concurrence on Oconee Assessment Letter
2011-JAN-28	ML110280153	Staff Assessment of Duke's Response to Confirmatory Action Letter Regarding Duke's Commitments To Address External Flooding Concerns At The Oconee Nuclear Station, Units 1, 2, And 3 (ONS) (TAC NOS. ME3065, ME3066, and ME3067)
2011-MAR-5	ML103410042	Supplement to Technical Basis for Allowing Oconee Nuclear Station to Remain in Operation Through November 2011, Associated with the External Flooding Issues
2011-MAR-15	ML110740482	Analysis Report for the Proposed Generic Issue on Flooding of Nuclear Power Plant Sites Following Upstream Dam Failures
2011-APR-29	ML111460063	Oconee Nuclear Site, Units 1, 2, and 3, Response to Confirmatory Action Letter (CAL) 2-10-003
2011-AUG-16	ML11229A710	E-mail re Briefing Package for Visit to Oconee Nuclear Power Plant on September 12- 13, 2011
2011-AUG-18	ML11174A138	Oconee Nuclear Station, Units 1, 2, and 3, Assessment of Duke Energy Carolinas, LLC April 29, 2011, Response to Confirmatory Action Letter Regarding Modifications to Address External Flooding Concerns (TAC Nos. ME6133, ME6134, and ME6135)
2011-AUG-31	ML112430114	Screening Analysis Report for the Proposed Generic Issue on Flooding of Nuclear Power Plant Sites Following Upstream Dam Failures
2011-SEP-1	ML11244A024	Briefing Package for Visit to Oconee Nuclear Power Plant on September 12-13, 2011
2011-OCT-3	ML11278A173	Oconee Nuclear Station (ONS), Units 1, 2, and 3, Response to Requests for Additional Information Regarding Necessary Modifications to Enhance the Capability of the ONS Site to Withstand the Postulated Failure of the Jocassee Dam
2011-OCT-17	ML11294A341	Oconee Nuclear Station (ONS), Units 1, 2, and 3, Response to Requests for Additional Information Regarding Necessary Modifications to Enhance the Capability of the ONS Site to Withstand the Postulated Failure of the Jocassee Dam
2011-DEC-16	ML113500495	Screening Analysis Report for the Proposed Generic Issue on Flooding of Nuclear Power Plant Sites Following Upstream Dam Failures_redacted
2012-JAN-26	ML12026A549	Briefing Package for Commissioner Svinicki Visit to Oconee on February 1, 2012
2012-JAN-31	ML12026A254	Communication Plan for Oconee Nuclear Station (ONS) Following Issuance of GI-204
2012-FEB-3	ML12039A239	Oconee, Units 1, 2 and 3 - Request for Withholding from Public Disclosure Duke Energy Letter Dated May 20, 2009 Involving Postulated Failure of the Jocassee Dam
2012-FEB-9	ML12039A217	Briefing Package Request for Meeting with Duke Energy on February 16, 2012

# List of NRC Correspondence, Memos and Studies Regarding Failure of Jocassee Dam

Date	ADAMS	Title
2012-FEB-17	ML12053A016	Duke Energy Carolinas, LLC - Recommended Revisions to the Oconee Nuclear Station Section of NRC's Screening Analysis Report for the Proposed Generic Issue on Flooding of Nuclear Plant Sites Following Upstream Dam Failure
2012-FEB-23	ML12058A236	02/23/12 Summary of a Teleconference between the US NRC and Duke Energy Regarding Comments made by Duke Energy Concerning the Issuance of the Screening Analysis Report for Generic Issue 204
2012-MAR-5	ML090510269	NRC Information Notice 2012-002 Potentially Nonconservative Screening Value For Dam Failure Frequency In Probabilistic Risk Assessments
2012-MAY-15	ML12129A186	Oconee Nuclear Station, Units 1, 2, and 3 - Request for Additional Information Regarding Modifications to Address the External Flooding Concerns (TAC NOS. ME7970, ME7971, AND ME7972)
2012-JUN-14	ML12167A372	Oconee, Units 1, 2, and 3, Response to Requests for Additional Information Regarding Modifications to Address External Flooding Concerns
<b>201</b> 2-JUL-11	ML12215A327	07/11/2012 Licensee Non-Public Meeting Slides on Oconee External Flood Mitigation
201 <b>2</b> -JUL-11	M:L1218SA071	Briefing Package for Meeting with Duke Energy on July 11, 2012
2012-AUG-7	ML12206A325	Briefing Book for Meeting with Duke Energy on August 7, 2012
2012-SEP-20	ML12268A404	Communication Plan for Flooding September 2012
2012-SEP-20	ML12219A163	Oconee Nuclear Station, Units 1, 2 and 3 - Response to Questions Regarding Modifications to Address External Flooding Hazards (TAC Nos. ME7970, ME7971, AND ME7972)

### Criscione, Lawrence

From:

Herr, Linda

Sent:

Tuesday, January 08, 2013 2:35 PM

To:

Criscione, Lawrence

Subject:

RE: Meeting re: Flooding at Oconee from Jocassee Dam w/Cmr. Ostendorff

### Perfect, thank you for your patience!

----Original Message-----From: Criscione, Lawrence

Sent: Tuesday, January 08, 2013 1:14 PM

To: Herr, Linda

Subject: RE: Meeting re: Flooding at Oconee from Jocassee Dam w/Cmr. Ostendorff

Thanks. The 13th is a good day. I will put it on my calendar.

----Original Message-----

From: Herr, Linda

Sent: Tuesday, January 08, 2013 9:01 AM

To: Criscione, Lawrence

Subject: RE: Meeting re: Flooding at Oconee from Jocassee Dam w/Cmr. Ostendorff

Importance: High

Hi Larry:

I have scheduled Feb 13, 2013 from 9:30-10:00am - although I was able to look at your calendar, the entire month of February is marked "tentative," so if the 13th doesn't work for you we'll try again:)

Thank you!!

Linda

----Original Message-----From: Criscione, Lawrence

Sent: Friday, January 04, 2013 11:54 AM

To: Herr, Linda

Subject: RE: Meeting re: Flooding at Oconee from Jocassee Dam w/Cmr. Ostendorff

I'll be in Illinois on January 22 and 23rd. I am next back in Rockville on January 30th. I've sent you a sharing invitation for my Outlook Calendar. It is up to date through the end of February.

Thanks, Larry

----Original Message-----

From: Herr, Linda

Sent: Thursday, January 03, 2013 1:35 PM

To: Criscione, Lawrence

Subject: RE: Meeting re: Flooding at Oconee from Jocassee Dam w/Cmr. Ostendorff

Importance: High

Hi Larry:

I know we've played with your meeting a couple of times already and I apologize - Cmr. Ostendorff will now be on travel the week of 1/14 thru 1/18 so may I ask your indulgence and move you one more time? Are you available on Jan 22 at 9:30am; 1:30pm or 3:00pm or on Jan 23 at 9:30am or 1:30pm? If not, please suggest days/times you are available so we can reschedule Jan 17th.

Thank you - again, I apologize.

Regards,

Linda

----Original Message-----From: Criscione, Lawrence

Sent: Monday, December 31, 2012 9:30 AM

To: Herr, Linda

Subject: RE: Meeting re: Flooding at Oconee from Jocassee Dam w/Cmr. Ostendorff

Linda.

The later time works for me. Should I plan on meeting with the Commissioner from 1:30 to 2:00pm?

Larry

----Original Message----

From: Herr, Linda

Sent: Friday, December 21, 2012 11:03 AM

To: Criscione, Lawrence

Subject: RE: Meeting re: Flooding at Oconee from Jocassee Dam w/Cmr. Ostendorff

Morning Lawrence:

Could I request that we moved your meeting to 1:30-2:00pm on the 17th? If that doesn't work for you, we'll leave it at the time it currently is scheduled 1:00-1:30pm.

Thank you for your consideration.

Happy Holidays!!

Linda

----Original Message-----From: Criscione, Lawrence

Sent: Wednesday, December 19, 2012 1:20 PM

To: Herr, Linda

Subject: RE: Meeting re: Flooding at Oconee from Jocassee Dam w/Cmr. Ostendorff

Thank you

From: Herr, Linda

Sent: Wednesday, December 19, 2012 1:19 PM

To: Criscione, Lawrence Cc: Tappert, John

Subject: RE: Meeting re: Flooding at Oconee from Jocassee Dam w/Cmr. Ostendorff

Perfect, have scheduled you from 1:00-1:30pm on Cmr. Ostendorff's calendar in his office OWFN-18 G1.

----Original Message-----

From: Criscione, Lawrence

Sent: Wednesday, December 19, 2012 1:16 PM

To: Herr, Linda Cc: Tappert, John

Subject: RE: Meeting re: Flooding at Oconee from Jocassee Dam w/Cmr. Ostendorff

Yes it would.

From: Herr, Linda

Sent: Wednesday, December 19, 2012 12:14 PM

To: Criscione, Lawrence Cc: Tappert, John

Subject: Meeting re: Flooding at Oconee from Jocassee Dam w/Cmr. Ostendorff

Good Afternoon Lawrence:

Would January 17th from 1:00-1:30pm work for you?

Thank you, Linda 301-415-1759

From: Tappert, John

Sent: Wednesday, December 12, 2012 2:36 PM

To: Herr, Linda

Subject: FW: Your Meeting Today Concerning Flooding at Oconee from Jocassee Dam

Linda

Please arrange for a meeting in early January. Thanks

John R. Tappert, P.E.

Chief of Staff

Office of Commissioner William C. Ostendorff U.S. Nuclear Regulatory Commission

(301) 415-1811 (office) (b)(b) (mobile) (301) 415-1757 (fax)

From: Tappert, John

Sent: Wednesday, December 12, 2012 10:17 AM

To: Criscione, Lawrence

Cc: Herr, Linda

Subject: RE: Your Meeting Today Concerning Flooding at Oconee from Jocassee Dam

Larry.

Sounds good. I will ask Linda to look for an opportunity in the New Year and we will confirm with you. Thanks

John

John R. Tappert, P.E.

Chief of Staff

Office of Commissioner William C. Ostendorff U.S. Nuclear Regulatory Commission

(301) 415-1811 (office) (b)(6) (mobile)

(301) 415-1757 (fax)

From: Criscione, Lawrence

Sent: Tuesday, December 11, 2012 4:41 PM

To: Tappert, John

Subject: RE: Your Meeting Today Concerning Flooding at Oconee from Jocassee Dam

John,

Thank you for the invitation. Unfortunately I leave tonight for Illinois and will not be returning until January 8th. If the Commissioner would be willing to meet with me in January, I would like to meet with him. My Outlook Calendar is up to date through Easter. If you or Linda could put me on the Commissioner's schedule in January, I would appreciate it.

#### Larry

From: Tappert, John

Sent: Tuesday, December 11, 2012 3:07 PM

To: Criscione, Lawrence

Cc: Herr, Linda

Subject: RE: Your Meeting Today Concerning Flooding at Oconee from Jocassee Dam

#### Larry

Thank you for your email. The Commissioner received a briefing yesterday that was based on the first attachment of your email. Consistent with his open door policy, he would be happy to meet with you if you would like. He has some open time on his calendar at the end of next week — Thursday afternoon or Friday — or Linda Herr, our senior administrative assistant, can arrange for another time. Please let us know. Thanks.

John

John R. Tappert, P.E.
Chief of Staff
Office of Commissioner William C. Ostendorff U.S. Nuclear Regulatory Commission (301) 415-1811 (office)
(b)(6) (mobile)
(301) 415-1757 (fax)

From: Criscione, Lawrence

Sent: Monday, December 10, 2012 6:53 PM To: Ostendorff, William; Magwood, William

Cc: Boska, John; Hiland, Patrick; Evans, Michele; Pascarelli, Robert; Wilson, George; Bartley, Jonathan; Cook, Christopher; Miller, Ed; Cheok, Michael; Chen, Yen-Ju; Beasley, Benjamin; Merzke, Daniel; Coffin, Stephanie; Skeen, David; See, Kenneth; Monninger, John; Perkins, Richard; Bensi, Michelle; Philip, Jacob; Sancaktar, Selim; Galloway, Melanie; Mitman, Jeffrey; Ferrante, Ferrande; Buhar, Patrice; Tappad, John

Selim; Galloway, Melanie; Mitman, Jeffrey; Ferrante, Fernando; Bubar, Patrice; Tappert, John

Subject: Your Meeting Today Concerning Flooding at Oconee from Jocassee Dam

#### Commissioner Ostendorff,

It came to my attention today that you and Commissioner Magwood were being briefed by NRR on the flooding vulnerabilities posed to the reactors at Oconee from a catastrophic failure of Jocassee Dam. Attached to this email are the "Commissioner Briefing Notes" prepared by NRR. Also attached are a 2012-11-14 letter from me to the Senate Committee on the Environment & Public Works (E&PW) and an April 6, 2009 Non-Concurrence Form which a Deputy Division Director at NRR/DRA (Melanie Galloway) submitted against NRR's pusillanimous treatment of the Oconee/Jocassee concerns.

I do not know exactly what you were told during your briefing today, but if it was limited to the "Commissioner Briefing Notes" then you did not receive all the pertinent facts.

A major concern of mine, which I addressed in my attached letter to the E&PW, is that, in all the internal documents I have uncovered regarding NRR briefings of the Commissioners on the Jocassee/Oconee flooding issue, the actual risk numbers calculated by NRR/DRA are never mentioned and neither is the 2008-09-26 Duke Energy timeline concerning the predicted failure sequence which would occur at Oconee following a catastrophic failure of the Lake Jocassee Dam (for the context of the quote below, see p. 10 of Attachment 2 of ML082750106):

The following flood timeline is based on the results of the 1992 Inundation Study. In this scenario the dam is assumed to fail at time zero. Notification from Jocassee would occur before a total failure of the dam; however, for purposes of this timeline, notification is assumed to be at the same time the dam fails. Following notification from Jocassee, the reactor(s) are shutdown within approximately 1 hour. The predicted flood would reach ONS in approximately 5 hours, at which time the SSF walls are overtopped. The SSF is assumed to fail, with no time delay, following the flood level exceeding the height of the SSF wall. The failure scenario results are predicted such that core damage occurs in about 8 to 9 hours following the dam break and containment failure in about 59 to 68 hours. When containment failure occurs, significant dose to the public would result.

Hopefully you recognize that the above scenario is very similar to what occurred at Fukushima when a tsunami overtopped their inadequately sized flood wall and disabled their standby shutdown equipment. Why the above scenario does not ever appear in Commissioner briefing packages, I do not understand. This seems to me like something you would want to know.

Another thing you should know is the annual probability of failure calculated by NRR/DRA for Jocassee Dam. That number is 2.8E-4/year, which is of the same order of magnitude of a 49 foot tsunami striking the Japanese coast at Fukushima. Given this calculated probability of dam failure and the Duke Energy timeline quoted above, it appears that the inadequately sized flood wall at Oconee presents a very similar hazard to the American public as the inadequately sized flood wall at Fukushima presented to the Japanese public. Is this not something of which NRR should be informing the Commissioners?

As noted by Dr. Ferrante in the email trail below, NRR is not a monolithic institution. Specifically, NRR/DRA has a very different position on the Jocassee/Oconee issue as NRR/DORL. See the attached Non-Concurrence from Melanie Galloway as an example.

I do not know who was at your briefing today, but from the invitation attached to this letter it appears that neither were the key personnel from NRR/DRA (Galloway, Mitman, Ferrante) nor were the authors of the GI-204 Screening Report (Perkins, Bensi, Philip, Sancaktar) invited to attend. It might be helpful to your understanding of the Jocassee/Oconee issue if you were to speak to Ms. Galloway regarding her 2009-04-06 Non-Concurrence, Dr. Ferrante and Mr. Mitman regarding their 2010-03-15 Generic Failure Rate Evaluation for Jocassee Dam, and Richard Perkins regarding his ordeal in routing and releasing the screening analysis for GI-204 on flooding due to upstream dam failures.

After over 60 years of military service, Admiral Rickover noted:

A major flaw in our system of government, and even in industry, is the latitude to do less than is necessary. Too often officials are willing to accept and adapt to situations they know to be wrong. The tendency is to downplay problems instead of actively trying to correct them.

The NRC first identified the undersized flood wall at Oconee Nuclear Station in March 1994. It is my concern that the reason this issue is taking more than two decades to address is that Division Directors at NRR have been willing to accept and adapt to situations they know to be wrong. As noticed by Ms. Galloway in April 2009, the tendency in NRR was to downplay the Jocassee/Oconee problem instead of actively trying to correct it. The public looks to the NRC Commissioners to curtail this "latitude to do less than is necessary" and to ensure the NRC staff transparently addresses concerns in a timely manner.

I appreciate you taking an interest in this issue and requesting a briefing by NRR. I am concerned, however, that your briefing might not have adequately detailed the vulnerabilities faced at Oconee.

V/r.

Larry Lawrence S. Criscione Reliability & Risk Analyst RES/DRA/OEGIB 573-230-3959

If a subordinate always agrees with his superior, he is a useless part of the organization.

From: Ferrante, Fernando

Sent: Thursday, November 15, 2012 1:58 PM

To: Criscione, Lawrence Cc: Mitman, Jeffrey

Subject: RE: Lack of Transparency Impeding Resolution of Flooding Concerns at Oconee

In understand, and I think the folks who were involved in it understand as well. I just worry that other folks will look at our affiliations and assume "NRR" means the specific folks listed in the letter.

From: Criscione, Lawrence

Sent: Thursday, November 15, 2012 11:42 AM

To: Ferrante, Fernando Cc: Mitman, Jeffrey

Subject: RE: Lack of Transparency Impeding Resolution of Flooding Concerns at Oconee

Thanks Fernando. Jeff sent me the PSA and PSAM papers last month.

When I use "NRR" I mean the dominant position that won out. Hopefully most people understand that in an agency of 4000 people there is no one true NRC position or one true NRR position. Over the past five years it has bothered me to no end that a legitimate FOIA exemption is "pre-decisional information" and that the NRC is able to use it to conceal the internal debate process. I think the public should be able to FOIA the varying NRC positions on issues and to understand how things are internally debated and decisions arrived at.

From: Ferrante, Fernando

Sent: Thursday, November 15, 2012 8:04 AM

To: Criscione, Lawrence Cc: Mitman, Jeffrey

Subject: RE: Lack of Transparency Impeding Resolution of Flooding Concerns at Oconee

Larry,

Thanks for the opportunity to review this letter. For the most part, the facts related to activities I am directly aware of are correct. Regarding the Information Notice (IN) that NRR authored on dam failure probabilities, I will give you some more background information that will hopefully help further clarify the discussion.

The IN came as a direct result of the Oconee/Jocassee issue. Jim Vail, a retired NRR/DRA/APOB staff, was in charge of developing it (with support from the NRR staff in charge of releasing generic communications in NRR/DPR/PGCB) under guidance from Melanie Galloway, then NRR/DRA Deputy Director. Sometime in 2009, I took over the responsibility of re-writing and issuing the IN (in the same manner I was tasked with rewriting NRR's original submittal to RES regarding the creation of what would eventually become GI-204). Since the beginning, there was a lot of resistance and internal struggle regarding this IN. In order to have the IN released I made sure to build consensus between NRR/DRA, NRR/DE, RES/DRA (which had produced an internal dam failure report which supported the information that eventually went into the IN), and others. As more NRC Offices lined up to be included in the IN, the concurrence process started to take longer and this ended up

indeed being an exceedingly long turnover for a generic communication. The GI-204 process continued in parallel until it became bogged down with some of the issues you described in the letter. At some point a presentation was made in an NRR LT/ET meeting, and the directive for the IN became to coordinate its release with the release of the GI-204 report. Because of the delays in the GI-204 report, this added another 6 months to a year of the release of the IN itself. At some point, when it became clear both releases were imminent, I was asked if the IN should be reclassified as "NON-PUBLIC/SECURITY RELATED," which I rejected on the basis that no information was contained in the IN which was covered in both NRR and NRC guidance regarding the withholding of information. Hence, the IN was eventually released publicly.

I should add that, as part of an effort to publicly release and discuss information that was created during the development of the dam failure report by RES/DRA, two papers were submitted, accepted, and presented at PRA conferences (the most recent in Helsinki, 2012) with concurrence from both NRR/DRA and RES/DRA staff (I can send these papers to you if you are interested). Both papers were reviewed internally and, similar to the IN, contained no information that went against guidance regarding withholding of information. Both papers relied in part on data developed by the US Army Corps of Engineers (USACE) which does restrict public release of certain portions of their dam databases, but we followed their guidelines and contacted USACE to make sure no inadvertent release was made. This papers follow the same methodology discussed in the internal NRR/DRA document you referred to in the letter (ML100780084) which, to my knowledge, is the closest we have come to a more official position on the dam failure rate issue (which was, at least in part, the intent I had when the document was created).

I'm sharing the above information to make sure that readers who are totally unfamiliar with the issue (inside or outside of NRC), get a clear picture of how NRR/DRA dealt with some of the issues we were faced during the Oconee/Jocassee issue. In several parts of the letter, certain positions regarding the release of information or level of importance the issue deserved are attributed to "NRR" as a whole (e.g., "...there was a strong push by NRR to force RES to remove all OUO-SRI material from the screening report for GI-204.") which I don't think were shared by all staff or Divisions within NRR. I am concerned this may be misconstrued by readers who are completely unaware of the challenges the Oconee/Jocassee issue presented to the technical staff to mean all staff within NRR shared these positions.

Thank you, Fernando Fernando, Ph.D.

Office of Nuclear Reactor Regulation (NRR) Division of Risk Assessment (DRA) PRA Operational Support

Branch (APOB) Mail Stop: 0-10C15

Phone: 301-415-8385 Fax: 301-415-3577

From: Criscione, Lawrence

Sent: Wednesday, November 14, 2012 10:23 AM

To: Zimmerman, Jacob; Vrahoretis, Susan

Cc: Beasley, Benjamin; Coe, Doug; Correia, Richard; Galloway, Melanie; Mitman, Jeffrey; Ferrante, Fernando;

Wilson, George: Leeds, Eric

Subject: FW: Lack of Transparency Impeding Resolution of Flooding Concerns at Oconee

Jacob/Susan: Please forward the attached letter to the Commission staff whom you believe should be aware of it.

I have copied on this email some of the NRR staff mentioned in the letter. Please let me know if I am misportraying any of your positions. Please feel free to forward this letter to whomever you believe needs to see it.

V/r, Larry Criscione 573-230-3959 From: Criscione, Lawrence

Sent: Wednesday, November 14, 2012 9:15 AM

To: 'valerie\_manak@epw.senate.gov'; 'nathan\_mccray@epw.senate.gov' Subject: Lack of Transparency Impeding Resolution of Flooding Concerns at Oconee

Please see the attached letter to the Senate Committee on the Environment & Public Works.

NRC FORM 464 Part I U.S. NUCLEAR REGULATORY COMMISSION (01-2015)	FOIA/PA	RESPONSE NUMBER			
RESPONSE TO FREEDOM OF	2013-0262	1			
INFORMATION ACT (FOIA) / PRIVACY	RESPONSE - INTERN				
ACT (PA) REQUEST	TYPE INTERII	M ✓ FINAL			
REQUESTER	APR 1 3 2015	= 1			
Lawrence Criscione	74 1 3 2010				
PART I INFORMATION RELEASED	)	uėj			
No additional agency records subject to the request have been located.					
Requested records are available through another public distribution program. S	See Comments section.				
Agency records subject to the request that are identified in the ADAMS or on microfiche in the NRC Public Document Room.	specified group are already	available in public			
Agency records subject to the request that are contained in the public ADAMS.	specified group are being m	nade available in			
Agency records subject to the request are enclosed.					
Records subject to the request that contain information originated by or of interereferred to that agency (see comments section) for a disclosure determination a		y have been			
We are continuing to process your request.		*			
See Comments.		341 341			
PART I.A FEES					
AMOUNT* You will be billed by NRC for the amount listed.	None. Minimum fee thresho	ld not met.			
* See comments for details You will receive a refund for the amount listed.	Fees waived.	1 4 11			
PART I.B INFORMATION NOT LOCATED OR WITHHELD	FROM DISCLOSURE	3			
We did not locate any agency records responsive to your request. <i>Note</i> discrete categories of law enforcement and national security records as See 5 U.S.C. 552(c). This is a standard notification that we give to all reindication that any of these excluded records do, or do not, exist.	not subject to the FOIA (	"exclusions").			
We have withheld certain information in the records from disclosure pur and for the reasons stated, in Part II.	rsuant to the FOIA exemp	tions described,			
	Because this is an interim response to your request, you may not appeal this determination at this time. We will notify you of your right to appeal any of the responses we have issued in response to your request when we issue				
You may appeal this final determination within 30 calendar days of the date of this response, by writing to the FOIA Officer, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001. Please be sure to mark your letter/envelope or email that it is a "FOIA Appeal."					
PART I.C COMMENTS (Use attached Comments continu	ation page if required)				
We appreciated your patience while your case was being processed.					
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SIGNATURE - FREEDOM OF INFORMATION ACT AND PRIVACY ACT OFFICER					
Roger Andoh		30			

NRC FORM 464 Part I (01-2015)	U.S. NUCLEAR REGULATORY CO	OMMISSION	FOIA/PA	u Të		RE	SPONSE N	UMBER
(01-2013)	RESPONSE TO FREEDOM OF		2013-0262		1	1		
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REQUESTER		10	DATE	APR	1 3 2	015		
Lawrence Criscione	w -			727200				
PART I.C COMMENTS	G (Continued)							
Part A: The following	ng responsive records can be found electronically:							
Records that are Ava	ailable Publicly in ADAMS:							
ML13256A370								25
ML081640244								
ML090570779								
ML101610083	*							
ML13256A372								
ML101730329						,		
ML101900305								
ML103490330								
ML111460063								
ML13039A084								5
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2013-0262

# (08-2013)

### RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST

DATE APR 1 3 2015

"****"				-	
	PART II.A APPLICABLE EXEM	MPTIONS		٦	
	bject to the request that are contained in the specified ground No.(s) of the PA and/or the FOIA as indicated below (5 U.S.)		art under the	1	
Exemption 1: The withh	neld information is properly classified pursuant to Executive	Order 12958.		1	
Exemption 2: The withi	held information relates solely to the internal personnel rule	es and practices of NRC.		1	
Exemption 3: The withh	neld information is specifically exempted from public disclose	sure by statute indicated.		1	
Sections 141-145 2161-2165).	of the Atomic Energy Act, which prohibits the disclosure of	f Restricted Data or Formerly Restricted Da	ta (42 U.S.C.	-	
Section 147 of the	Atomic Energy Act, which prohibits the disclosure of Uncl	assified Safeguards Information (42 U.S.C.	2167).	1	
	n 4702(b), prohibits the disclosure of contractor proposals tion 552 of Title 5, U.S.C. (the FOIA), except when incorpo				
Exemption 4: The withit	neld information is a trade secret or commercial or financia	I information that is being withheld for the re	eason(s) indicated.	١	
The information is	s considered to be confidential business (proprietary) inform	nation.		- 1	
	s considered to be proprietary because it concerns a licens am for special nuclear material pursuant to 10 CFR 2.390(o		aterial control and	١	
The information w	vas submitted by a foreign source and received in confiden	ce pursuant to 10 CFR 2.390(d)(2).		١	
Disclosure will ha	rm an identifiable private or governmental interest.			١	
V 1	neld information consists of interagency or intraagency rec le privileges:	ords that are not available through discover	y during litigation.		
deliberative proce There also are no	ess: Disclosure of predecisional information would tend to ess. Where records are withheld in their entirety, the facts reasonably segregable factual portions because the relea- cess of the agency.	are inextricably intertwined with the predec	isional information.		
Attorney work-pro	oduct privilege. (Documents prepared by an attorney in co	ntemplation of litigation)		- 1	
✓ Attorney-client pri	ivilege. (Confidential communications between an attorney	and his/her client)			
	held information is exempted from public disclosure because of personal privacy.	se its disclosure would result in a clearly un	warranted		
	held information consists of records compiled for law enfor	cement purposes and is being withheld for	the reason(s) indicate	ed.	
focus of enfo	ould reasonably be expected to interfere with an enforceme rcement efforts, and thus could possibly allow recipients to from investigators).	ent proceeding (e.g., it would reveal the sco take action to shield potential wrong doing	pe, direction, and or a violation of NRC		
	ould constitute an unwarranted invasion of personal privacy	<i>i</i> .			
	ion consists of names of individuals and other information confidential sources.	the disclosure of which could reasonably be	e expected to reveal		
	ould reveal techniques and procedures for law enforcement e expected to risk circumvention of the law.	nt investigations or prosecutions, or guidelin	nes that could		
(F) Disclosure co	ould reasonably be expected to endanger the life or physic	al safety of an individual.			
OTHER (Specify)				-	
	BARTILE DENIVING OF	FIGURE S			
PART II.B DENYING OFFICIALS  Pursuant to 10 CFR 9.25(g), 9.25(h), and/or 9.65(b) of the U.S. Nuclear Regulatory Commission regulations, it has been determined that the information withheld is exempt from production or disclosure, and that its production or disclosure is contrary to the public interest. The person responsible for the denial are those officials identified below as denying officials and the FOIA/PA Officer for any denials that may be appealed to the Executive Director for Operations (EDO).					
DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL EDO SECY	IG	
Brooke D. Poole	Assistant General Counsel for Lgl Counsel	Group B	EDO SECY		
Rochelle Bavol	Executive Assistant	Group B		Ť	
**************************************				Ŧ	
Appeal must be made in wri	iting within 30 days of receipt of this response. Ann	peals should be mailed to the EOIA/Pri	ivacy Act Officer		
U.S. Nuclear Regulatory Co	Appeal must be made in writing within 30 days of receipt of this response. Appeals should be mailed to the FOIA/Privacy Act Officer, J.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, for action by the appropriate appellate official(s). You should clearly state on the envelope and letter that it is a "FOIA/PA Appeal."				

Group  $\_{\mathcal{B}}$ 

FOIA/PA NO: 2013-0262

# **RECORDS BEING RELEASED IN PART**

The following types of information are being withheld:

Ex. 1: Records properly classified pursuant to Executive Order 13526
Ex. 2: Records regarding personnel rules and/or human capital administration
Ex. 3: Information about the design, manufacture, or utilization of nuclear weapons
☐ Information about the protection or security of reactors and nuclear materials
Contractor proposals not incorporated into a final contract with the NRC.
Other
Ex. 4: Proprietary information provided by a submitter to the NRC
Other
Ex. 5: Draft documents or other pre-decisional deliberative documents (D.P. Privilege)
Records prepared by counsel in anticipation of litigation (A.W.P. Privilege)
Privileged communications between counsel and a client (A.C. Privilege)
Other
Ex. 6: Agency employee PII, including SSN, contact information, birthdates, etc.
Third party PII, including names, phone numbers, or other personal information
Ex. 7(A): Copies of ongoing investigation case files, exhibits, notes, ROI's, etc.
Records that reference or are related to a separate ongoing investigation(s)
Ex. 7(C): Special Agent or other law enforcement PII
PII of third parties referenced in records compiled for law enforcement purposes
Ex. 7(D): Witnesses' and Allegers' PII in law enforcement records
Confidential Informant or law enforcement information provided by other entity
Ex. 7(E): Law Enforcement Technique/Procedure used for criminal investigations
Technique or procedure used for security or prevention of criminal activity
Ex. 7(F): Information that could aid a terrorist or compromise security
01 - 10
Other/Comments:

# **FOIA for Review**

Blease return to Kristy when completed

FOIA #: 2013-0008	Ander
Partial or Final: Final	(b)(5)
Approval: Yes No	
Initials: MS	
Comments: (b)(5)	

Vrahoretis, Susar	1
From: Sent: To: Subject:	Remsburg, Kristy Friday, October 12, 2012 11:40 AM Vrahoretis, Susan RE: FOIA-13-0008 - request for letter dated 09/18/12, from Lawrence Criscione to Chrm Macfarlane about Nuclear Plant Vulnerabilities to Flooding
Hi Susan,	
0)(5)	
Thanks,	
Kristy	
To: Remsburg, Kristy Cc: Vietti-Cook, Anne Cermeno, Andrea; Ch	tte; Mike, Linda; Bates, Andrew; Lewis, Antoinette; Zimmerman, Jacob; Pace, Patti; Gibbs, Catina; airman Temp 3-0008 - request for letter dated 09/18/12, from Lawrence Criscione to Chrm Macfarlane about
0)(5)	
Susan	
Sasan H. Vrahoretis	
Legal Counsel	A Martialan
Office of Chairman Alfi United States Nuclear R	

I mail Susan. Vrahoretis a me. gov

From: Remsburg, Kristy Sent: Thursday, October 11, 2012 5:35 PM

To: Vrahoretis, Susan

Office: O17D07

Office: (301) 415-1834 [

Cc: Vietti-Cook, Annette; Mike, Linda; Bates, Andrew; Lewis, Antoinette; Zimmerman, Jacob; Pace, Patti; Gibbs, Catina;

Cermeno, Andrea; Chairman Temp

Subject: RE: FOIA-13-0008 - request for letter dated 09/18/12, from Lawrence Criscione to Chrm Macfarlane about Nuclear Plant Vulnerabilities to Flooding

Hi Susan,

(b)(5)		

If we can further assist you in this process, please let us know.

Thanks, Knsty

From: Vrahoretis, Susan

Sent: Wednesday, October 10, 2012 4:26 PM

To: Remsburg, Kristy; Pace, Patti; Gibbs, Catina; Cermeno, Andrea; Chairman Temp

Cc: Vietti-Cook, Annette; Mike, Linda; Bates, Andrew; Lewis, Antoinette; Zimmerman, Jacob

Subject: RE: FOIA-13-0008 - request for letter dated 09/18/12, from Lawrence Criscione to Chrm Macfarlane about

Nuclear Plant Vulnerabilities to Flooding

Kristy.

(b)(5)		

Thank you.

#### Susan

#### Susan H. Vrahoretis

Legal Counsel Office of Chairman Allison M. Macfarlane United States Nuclear Regulatory Commission Office: O17D07

F-mail: Susan Vrahoretis a nrc. gov Office: (301) 415-1834 |

From: Remsburg, Kristy

Sent: Wednesday, October 10, 2012 4:17 PM

To: Vrahoretis, Susan; Pace, Patti; Gibbs, Catina; Cermeno, Andrea; Chairman Temp

Cc: Vietti-Cook, Annette; Mike, Linda; Bates, Andrew; Lewis, Antoinette

Subject: FOIA-13-0008 - request for letter dated 09/18/12, from Lawrence Criscione to Chrm Macfarlane about Nuclear

Plant Vulnerabilities to Flooding

Hi Susan,

(5)	

If you have any questions, please let me know.

Thanks,

## Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission

Office: 301-415-1667

### Remsburg, Kristy

From:

Remsburg, Kristy

Sent:

Thursday, November 15, 2012 5:02 PM

To:

FOIA Resource; Kilgore, Linda

Cc:

FOIAPASECY Resource; Mike, Linda; Lewis, Antoinette; Bates, Andrew

Subject:

FOIA 2013-0008

Attachments:

FOIA 2013-0008.doc

Categories:

Green Category

Linda,

Please see attached memo and appendices for FOIA 2013-0008. The hard copy is being sent to you interoffice mail.

This closes action for SECY.

Please let me know if you have any questions.

Thanks,

## Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission

Office: 301-415-1667



# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, DC 20555 - 0001

November 15, 2012

MEMORANDUM TO:	FOIA/PA Caseworker, Linda Kilgore FOIA/PA Section
FROM:	Kristy Remsburg /RA/ FOIA Coordinator Office of the Secretary
SUBJECT:	FOIA/PA-2013-0008
No records subject	et to the request.
Records already p	publicly available. (Appendix)
Records being rel	eased in their entirety. (Appendix)
Records being wit	hheld in part. (Appendix)*
Records being wit	hheld in their entirety. (Appendix)*
Records to be refe	erred to other offices/agencies/companies. (Appendix)
Ongoing investiga	ation - 7A Certification attached.
Attached is NRC I	Form 496, "Report of Staff Resources for Processing FOIA Requests."
Place released re-	cords in PDR.
Do not place relea	ased records in PDR.
This is a partial re	sponse to this request.
X This is the final re	sponse to this request.
X This response con	ntains sensitive security information. (Appendix A)
This response doe	es not contain sensitive security information.
	statement attached for Exemption 5. Provide a statement 3, 4, 6, 7A and 7C only if not obvious.
A discretionary r	elease of information was not made in a record(s) subject to this request.
	release of information was made in a record(s) subject to this request. released which would have qualified for withholding under: Exemption 5 (check all that apply)

X OTHER COMMENTS: Some documents have been redacted by NRR, RES and Region II but specific exemptions are not specified in response to this FOIA request. Please refer these documents to these offices and this FOIA will need to be reviewed by OGC before responding to requester.

Attachment(s): As stated

Re: FOIA/PA-2013-0008

# APPENDIX A RECORDS CONTAINING SENSITIVE SECURITY INFORMATION

(b)(5)

Re: FOIA/PA-2013-0008

(b)(5)		



### Remsburg, Kristy

From:

Remsburg, Kristy -

Sent:

Thursday, November 15, 2012 5:05 PM

To:

FOIA Resource; Kilgore, Linda

Cc:

FOIAPASECY Resource; Mike, Linda; Lewis, Antoinette; Bates, Andrew; Remsburg, Kristy

Subject:

FOIA 2013-0013

Attachments:

FOIA 2013-0013.doc

Categories:

Green Category

Linda,

Please see attached memo and appendices for FOIA 2013-0013. The hard copy is being sent to you interoffice mail.

This closes action for SECY.

Please let me know if you have any questions.

Thanks,

# Kristy

Kristy Remsburg
Office of the Secretary
U.S. Nuclear Regulatory Commission

Office: 301-415-1667



# UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20555 - 0001

November 15, 2012

MEMORANDUM TO:	FOIA/PA Caseworker, Linda Kilgore FOIA/PA Section
FROM:	Kristy Remsburg /RA/ FOIA Coordinator Office of the Secretary
SUBJECT:	FOIA/PA-2013-0013
No records subject	ct to the request.
Records already p	publicly available. (Appendix)
Records being rel	eased in their entirety. (Appendix)
Records being wit	thheld in part. (Appendix)*
Records being wit	thheld in their entirety. (Appendix)*
Records to be refe	erred to other offices/agencies/companies. (Appendix)
Ongoing investiga	ation - 7A Certification attached.
Attached is NRC I	Form 496, "Report of Staff Resources for Processing FOIA Requests."
Place released re	cords in PDR.
Do not place relea	ased records in PDR.
This is a partial re	sponse to this request.
X This is the final re	esponse to this request.
X This response con	ntains sensitive security information. (Appendix A)
This response doe	es not contain sensitive security information.
	statement attached for Exemption 5. Provide a statement 3, 4, 6, 7A and 7C only if not obvious.
A discretionary r	release of information was not made in a record(s) subject to this request.
A	(check all that apply)

X OTHER COMMENTS: Some documents have been redacted by NRR, RES and Region II but specific exemptions are not specified in response to this FOIA request. Please refer these documents to these offices and this FOIA will need to be reviewed by OGC before responding to requester.

Attachment(s): As stated

Re: FOIA/PA-2013-0013

# APPENDIX A RECORDS CONTAINING SENSITIVE SECURITY INFORMATION

(b)(5)		
		- 1

Re: FOIA/PA-2013-0013

(b)(5) —	Ý

753	
(5)	

### Lewis, Antoinette

From: Vrahoretis, Susan Friday, March 01, 2013 9:59 AM Sent: To: Remsburg, Kristy Cc: Lewis, Antoinette; Mike, Linda Subject: RF: REMINDER: Concurrence: FOIA-2013-0008 - Referral Package for Documents 1 and Hi, Kristy, (b)(5)Susan Susan H. Vrahoretis Legal Counsel Office of Chairman Allison M. Macfarlane United States Nuclear Regulatory Commission Office: O17D07 E-mail: Susan Vrahoretis@nrc.gov Office: (301) 415-1834 From: Remsburg, Kristy Sent: Friday, March 01, 2013 9:56 AM To: Vrahoretis, Susan Cc: Lewis. Antoinette; Mike, Linda Subject: REMINDER: Concurrence: FOIA-2013-0008 - Referral Package for Documents 1 and 2 Hi Susan, (b)(5)Kristy Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667 From: Remsburg, Kristy

Sent: Friday, February 01, 2013 3:19 PM

To: Vrahoretis, Susan

Cc: Lewis. Antoinette; Mike, Linda

Subject: Concurrence: FOIA-2013-0008 - Referral Package for Documents 1 and 2

Hi Susan,	
(b)(5)	

Please provide your concurrence to the recommendation by: Friday, February 8, 2013.

If you have any questions, please let me know.

Thanks,

# Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667

#### Vrahoretis, Susan

Vrahoretis, Susan From: Wednesday, March 27, 2013 9:32 AM Sent: To: Remsburg, Kristy Niedzielski-Eichner, Phillip Cc: Subject: Re: FOIA-13-0008 Thanks Kristy! Susan Vrahoretis Legal Counsel Office of the Chairman (301) 415-1820 NOTE: This message may contain Sent from my NRC BlackBerry From: Remsburg, Kristy To: Vrahoretis, Susan Sent: Wed Mar 27 09:08:14 2013 Subject: RE: FOIA-13-0008 Absolutely (b)(6) Take Care, Kristy Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667 From: Vrahoretis, Susan Sent: Wednesday, March 27, 2013 8:40 AM To: Remsburg, Kristy Subject: FOIA-13-0008 Hi Kristy. I hope you're having a good week. (b)(6)

Thanks, Susan

#### Susan H. Vrahoretis

Legal Counsel Office of Chairman Allison M. Macfarlane United States Nuclear Regulatory Commission

Office: 017D07 (301) 415-1834 Susan.Vrahoretis@nrc.gov

INOTE: This e-mail may contain ATTORNEY-CLIENT COM DO NOT RELEASE WITHOUT COMMISSION APPROVAL.]

## Remsburg, Kristy

From:

Vietti-Cook, Annette

Sent:

Friday, March 29, 2013 10:44 AM

To: Cc: Remsburg, Kristy Bates, Andrew

Subject:

Re: Criscione Appeal

Definately

From: Remsburg, Kristy To: Vietti-Cook, Annette Cc: Bates, Andrew

Sent: Fri Mar 29 10:12:47 2013 Subject: Criscione Appeal

Annette,

(b)(5)

# Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission

Office: 301-415-1667

## Vrahoretis, Susan

From:

Remsburg, Kristy

Sent:

Thursday, April 04, 2013 5:41 PM

To: Subject: Vrahoretis, Susan RE: FOIA-13-0008

Hi Susan,

(b)(5)

## Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667

From: Vrahoretis, Susan

Sent: Thursday, April 04, 2013 5:40 PM

To: Remsburg, Kristy Subject: RE: FOIA-13-0008

Hi Kristy,

(b)(5)

Thanks,

Susan

#### Susan H. Vrahoretis

Legal Counsel Office of Chairman Allison M. Macfarlane United States Nuclear Regulatory Commission Office: O17D07

S E-mail: Susan Vrahoretis@nrc.gov Office: (301) 415-1820

From: Remsburg, Kristy

Sent: Thursday, April 04, 2013 1:49 PM

To: Vrahoretis, Susan Subject: RE: FOIA-13-0008

Hi Susan,

(b)(5),(b)(6)

Let me know.

Thanks,

Kristy

Kristy Remsburg Office of the Secretary

U.S. Nuclear Regulatory Commission

Office: 301-415-1667

From: Remsburg, Kristy

Sent: Friday, March 29, 2013 11:33 AM

To: Vrahoretis, Susan

Cc: Mike, Linda; Lewis, Antoinette Subject: RE: FOIA-13-0008

Hi Susan,

I'm sure you have seen the appeal from Mr. Criscione. Just checking to see if you are still able to provide us FOIA 2013-0008 referral package early next week? I will not be in the office on Monday but Linda and Angle will be.

Let me know.

Thanks,

Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667

From: Vrahoretis, Susan

Sent: Wednesday, March 27, 2013 8:40 AM

To: Remsburg, Kristy Subject: FOIA-13-0008

Hi Kristy.

I hope you're having a good week.

(b)(6)

Thanks, Susan

Susan H. Vrahoretis

Legal Counsel
Office of Chairman Allison M. Macfarlane
United States Nuclear Regulatory Commission
Office: 017D07
(301) 415-1834
Susan Vrahoretis@nrc.gov

[NOTE: This e-mail thay contain ATTORNEY-CLIENT COMMUNICATIONS of ATTORNEY WORK PRODUCT DO NOT RELEASE WITHOUT COMMISSION APPROVAL.]

### Remsburg, Kristy

From:

Kilgore, Linda

Sent:

Friday, November 16, 2012 6:45 AM

To: Subject: Remsburg, Kristy RE: FOIA 2013-0008

Hi Kristy,

Thanks for the response. SECY action will be closed.

Thanks Linda

From: Remsburg, Kristy

Sent: Thursday, November 15, 2012 5:02 PM

To: FOIA Resource; Kilgore, Linda

Cc: FOIAPASECY Resource; Mike, Linda; Lewis, Antoinette; Bates, Andrew

Subject: FOIA 2013-0008

Linda,

Please see attached memo and appendices for FOIA 2013-0008. The hard copy is being sent to you interoffice mail.

This closes action for SECY.

Please let me know if you have any questions.

Thanks,

Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission

Office: 301-415-1667

#### Remsburg, Kristy

From:

Kilgore, Linda

Sent:

Friday, November 16, 2012 6:42 AM

To:

Remsburg, Kristy

Subject:

RE: FOIA 2013-0013

Hi Kristy,

Thanks for the response. SECY action will be closed.

Judging by the number of other offices involved, it will be awhile before the FOIA is completed.

Thanks Linda

From: Remsburg, Kristy

Sent: Thursday, November 15, 2012 5:05 PM

To: FOIA Resource; Kilgore, Linda

Cc: FOIAPASECY Resource; Mike, Linda; Lewis, Antoinette; Bates, Andrew; Remsburg, Kristy

Subject: FOIA 2013-0013

Linda,

Please see attached memo and appendices for FOIA 2013-0013. The hard copy is being sent to you interoffice mail.

This closes action for SECY.

Please let me know if you have any questions.

Thanks,

Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667

# Remsburg, Kristy From: Remsburg, Kristy Friday, March 29, 2013 9:53 AM Sent: Vietti-Cook, Annette To: Cc: Bates, Andrew; Mike, Linda; Lewis, Antoinette Subject: RE: This is a FOIA Appeal for FOIA requests 2013-0126, 2013-0127, and 2013-0128 Attachments: FW: FOIA/PA-2013-00008 Referral Assignment; FOIA-13-0008 Hi Annette, Unfortunately (b)(6)Here's some info, on the Criscione FOIA requests: Thanks, Kristy Kristy Remsburg

Kristy Remsburg
Office of the Secretary
U.S. Nuclear Regulatory Commission
Office: 301-415-1667

From: Vietti-Cook, Annette

**Sent:** Friday, March 29, 2013 8:56 AM **To:** Remsburg, Kristy; Farrington, John

Cc: Doane, Margaret; Rothschild, Trip; Vrahoretis, Susan

Subject: Fw: This is a FOIA Appeal for FOIA requests 2013-0126, 2013-0127, and 2013-0128

Let's discuss status of there foia requests and appeal on monday

From: Lawrence Criscione < Iscriscione@hotmail.com>

To: CHAIRMAN Resource; Vietti-Cook, Annette; Borchardt, Bill; Ash, Darren; Sealing, Donna; Kilgore, Linda; FOIA Resource

Cc: Billie Garde <br/>
bpgarde@cliffordgarde.com>; sshepherd@cliffordgarde.com <sshepherd@cliffordgarde.com>; Louis<br/>
Clark <louisc@whistleblower.org>; paul@times.org <paul@times.org>; Kay Drey <tritium3@sbcglobal.net>; Carl Stelzer<br/>
b)6) Paul Blanch pmblanch@comcast.net>; Joe Carson <ppcarson@tds.net>; Jim Riccio

<jriccio@greenpeace.org>; Dave Lochbaum <dlochbaum@ucsusa.org>; Tom Zeller <tom@huffingtonpost.com>;

Sullivan, Randy; NTEU, Chapter 208; iryll.robbins-umel@nteu.org <iryll.robbins-umel@nteu.org>

Sent: Fri Mar 29 04:05:04 2013

Subject: This is a FOIA Appeal for FOIA requests 2013-0126, 2013-0127, and 2013-0128

The letter attached to this email is an appeal for the refusal of the NRC to release records which were requested under FOIA/PA 2013-0126, 0127, and 0128. Please note:

- The NRC has had these three FOIA requests for over thirty working days.
- For five of the seven records involved in the requests, ADAMS numbers were provided by me when I
  made my requests (ML111460063, ML100780084, ML101610083, ML101900305, ML09I170104).
- Two of the records were formal correspondence between the NRC and a licensee (ML111460063, ML101610083).
- One of the records was an internal NRC memo requesting a Generic Issue (ML101900305).
- One of the records was an internal NRC study on dam failures (ML100780084).
- One of the records was a Non-Concurrence Form submitted on correspondence with a licensee (ML091170104).
- One of the records was a 2012-09-18 email sent to the NRC Chairman and another was a letter attached to that email.

All these records should have been easily located and--within thirty working days--readily reviewed and released. I can see no reason for not being able to release these records within the thirty working days allotted by the FOIA process.

The attached letter involves seven documents, three FOIA requests (2013-0126, 0127 & 0128), and two appeal authorities (SECY and OEDO). You may treat this as one appeal or divide as best suits your needs. All I ask is that I get an answer by May 13, 2013 so that, if all the documents requested are not provided in their entirety, I can continue on with the next step of the appeal process in accordance with 10 CFR §9.29(c).

Since I am submitting a FOIA Appeal, by definition I believe the NRC is not obeying the Freedom of Information Act. Please note that I believe this disobedience is due to either a lack of understanding of the FOIA process/exemptions on the part of various NRC staff members, a lack of leadership on the part of various NRC managers, a lack of allocated resources, or a combination of these factors. I do not believe that anyone involved in the FOIA process at the NRC is guilty of criminal behavior. Nothing in this letter is meant to be an allegation of criminal wrong doing. Please do not turn this letter over to the Office of the Inspector General as "Allegation Material". If anyone is concerned with opinions I express in the attached FOIA Appeal, I ask that in the spirit of an Open and Collaborative Work Environment they engage me and attempt to understand my opinions and my reasons for those opinions. Misconstruing constructive criticisms of our various policies and programs as allegations of criminal wrongdoing is counterproductive. Passing another so-called "Allegation" on to the Inspector General in my name does nothing but waste his resources and the taxpayers' money. If I have an Allegation of criminal wrongdoing to make, I will come forth to the Inspector General and make it myself.

Although I live in Springfield, IL, I work in Rockville, MD. Please do not send documents to my home in Springfield, IL as I will not get them in a timely manner. Please send all written correspondence to me via email at <a href="LSCriscione@hotmail.com">LSCriscione@hotmail.com</a>. If your processes will not allow you to do this, then please contact me via phone or email and I will come by the FOIA desk to pick up the correspondence.

If you cannot accept this attached FOIA Appeal via email, please call me today at 573-230-3959 and I will bring a hard copy by the FOIA office or wherever it must be delivered.

Thank you, Larry Lawrence S. Criscion

Lawrence S. Criscione, PE
"Human experience shows that people, not organizations or management systems, get things done."

, , , , , , ,	ingore, cirae	
Sent:	Friday, March 29, 2013 7:14 AM	
To:	FOIAPASECY Resource	
Cc:	Remsburg, Kristy; Kilgore, Linda	
Subject: FW: FOIA/PA-2013-00008 Referral Assi		
Attachments:	2013-0008 pdf	

Kiloore Linda

Attachments: 201

### Greetings,

From:

Is there anything new on the status of this referral? We have 3 requests which involve the same 2 records and cannot close requests 2013-0008, 2013-0013 and 2013-0127 until we receive a response from SECY

Thanks Linda

From: Admin, Admin [mailto:foia.resource@nrc.gov]

Sent: Friday, January 25, 2013 8:30 AM

To: FOIAPASECY Resource

Cc: Kilgore, Linda

Subject FOIA/PA-2013-00008 Referral Assignment

A Referral for FOIA/PA-2013-00008 is being assigned to SECY on January 25, 2013.

(b)(5)			

From:

Vrahoretis, Susan

Sent:

Wednesday, March 27, 2013 8:40 AM

To:

Remsburg, Kristy

Subject:

FOIA-13-0008

Hi Kristy,

I hope vou're having a good week. (b)(6)

Thanks, Susan

### Susan H. Vrahoretis

Legal Counsel Office of Chairman Allison M. Macfarlane United States Nuclear Regulatory Commission Office: O17D07 (301) 415-1834 Susan.Vrahoretis@nrc.gov

[NOTE: This e-mail may contain ATTORNEY-CLIEN DO NOT RELEASE WITHOUT COMMISSION APPROVAL.

Thanks Linda

From: Admin, Admin [mailto:foia.resource@nrc.gov]
Sent: Thursday, February 07, 2013 7:13 AM

To: FOIAPASECY Resource Cc: Kilgore, Linda; FOIA Resource

Subject: FOIA/PA-2013-00106 Action Item/Instructions FEE WAIVER GRANTED

You have been assigned action on the incoming FOIA request available at:

ADAMS ACCESSION # ML13037A217 The incoming request was not added to ADAMS. An electronic copy is attached.

NRR, RES and Region II have already been assigned action. NRR informed us that the Chairman's office should be included.

Since the requester has been granted a fee waiver, no estimate is required. Please proceed to process the request.

Offices Assigned Action on February 7, 2013 SECY

The OIS FOIA/PA Specialist for this request is indicated in the "cc" to this e-mail.

The FOIA/PA request should be processed in accordance with the standard instructions (How to Respond to an Initial FOIA Request) at ML060590485. You are encouraged to ask for a scoping discussion with the requester when you believe it will be beneficial. You are encouraged to ask for assistance in performing adequate ADAMS searches if you are having difficulty doing a search. Your initial estimate of search and review time and the volume of records is required within four (4) working-days from the date of this transmittal e-mail. NRC Form 496, "Report of Staff Resources for Processing FOIA/PA Requests" is now available on Informs for your use.

From:	Kilgore, Linda	
Sent:	Tuesday, April 09, 2013 6:41 AM	
FOIAPASECY Resource		
Subject:	FW: FOIA/PA-2013-00008 Referral Assignment	
Attachments:	2013-0008.pdf	
Categories:	Green Category	
Hi Kristy,		
	office completed the review of the records yet? We have completed the other records It would be great if we could close the request soon.	
Thanks Linda		
Sent: Friday, January : To: FOIAPASECY Reso		
Cc: Kilgore, Linda Subject: FOIA/PA-201	3-00008 Referral Assignment	
A Referral for FOIA	PA-2013-00008 is being assigned to <b>SECY</b> on <b>January 25, 2013</b> .	
(b)(5)		

From:	Kilgore, Linda
Sent:	Tuesday, April 30, 2013 10:48 AM
To: FOIAPASECY Resource	
Subject:	FW: FOIA/PA-2013-00008 Referral Assignment - status
Hello Kristy,	
Have you heard anyth	ing new regarding the 2 Commission records?
I know the Chairman	s office had issues. Just hoping they may have resolved them.
Thanks	
Linda	
From: FOIAPASECY I Sent: Tuesday, April	
To: Kilgore. Linda	
	A-2013-00008 Referral Assignment
Hi Linda,	
(b)(5)	
Thanks,	
Kristy	
Kristy Remsburg	
Office of the Secretar	
U.S. Nuclear Regulato	
Office: 301-415-1667	
From: Kilgore, Linda	20.20.20.40.40
Sent: Tuesday, April To: FOIAPASECY Res	
	A-2013-00008 Referral Assignment

Hi Kristy,

Has the Chairman's office completed the review of the records yet? We have completed the other records related to this case. It would be great if we could close the request soon.

Thanks Linda From: Admin, Admin [mailto:foia.resource@nrc.gov]
Sent: Friday, January 25, 2013 8:30 AM
To: FOIAPASECY Resource
Cc: Kilgore Linda
Subject: FOIA/PA-2013-00008 Referral Assignment

A Referral for FOIA/PA-2013-00008 is being assigned to SECY on January 25, 2013.

(b)(5)		
The second secon		

From: Remsburg, Kristy

Sent: Monday, May 13, 2013 9:21 AM

To: Hirsch, Patricia

Subject: RF. Oconee/Jocassee Dam FOIAs pending office response regarding 2 Commission

records

Pat,

Can I call you about this?

# Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667

From: Hirsch, Patricia

Sent: Friday, May 10, 2013 1:33 PM

To: Remsburg, Kristy

Subject: FW 'Oconee/Jocassee Dam FOIAs pending office response regarding 2 Commission records

### ??? I know nothing!!!????

Pat Hirsch
Assistant General Counsel for Legal Counsel,
Legislation and Special Projects
Alternate Agency Ethics Official
Office of General Counsel
Nuclear Regulatory Commission
Mail Stop O-15 D21
301-415-0563



From: Sealing, Donna

Sent: Friday, May 10, 2013 10:49 AM

To: Hirsch, Patricia Cc: Kilgore, Linda

Subject: FW: Oconee/Jocassee Dam FOIAs pending office response regarding 2 Commission records

If we could get these two records back we could close five requests. Anything you can do to help with this would be greatly appreciated.

Thanks,

Donna

From: Kilgore, Linda Sent: Friday, May 10, 2013 10:35 AM

To: Sealing Donna

Subject: Oconee/Jocassee Dam FOIAs pending office response regarding 2 Commission records

Donna,

b)(5)	

Thanks Linda

From:

FOIAPASECY Resource

Sent:

Monday, May 13, 2013 10:53 AM

To:

Vrahoretis, Susan

Subject:

FW: FOIA/PA-2013-00239 - For your information

Attachments:

2013-0239.pdf

Hi Susan,

Please see attached FOIA request. We are not being assigned but it was forwarded to us as information. Two documents requested in this request pertain to the referral package you have – FOIA 2013-0008.

(b)(5)

Let me know.

Thanks,

# Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667

From: Kilgore, Linda

Sent: Monday, May 13, 2013 10:31 AM

To: FOIAPASECY Resource

Cc: Kilgore, Linda; Remsburg, Kristy

Subject: FW: FOIA/PA-2013-00239 - For your information

Although the responsive records related to this request are already in FOIA, the attached new request is being sent for your information because it relates to an open office action in another request.

The request lists 2 records (items 11-12) that are still pending in response to a referral for re-review in FOIA 2013-0008.

Thanks Linda

From: Admin, Admin [mailto:foia.resource@nrc.gov]

Sent: Wednesday, May 08, 2013 6:52 AM

To: FOIA Resource Cc: Kilgore, Linda

Subject: FOIA/PA-2013-00239 Action Item/Instructions

You have been assigned action on the incoming FOIA request available at:

### ADAMS ACCESSION # ML13127A295

# Offices Assigned Action on May 8, 2013 OIS

The OIS FOIA/PA Specialist for this request is indicated in the "cc" to this e-mail.

The FOIA/PA request should be processed in accordance with the standard instructions (How to Respond to an Initial FOIA Request) at ML060590485. You are encouraged to ask for a scoping discussion with the requester when you believe it will be beneficial. You are encouraged to ask for assistance in performing adequate ADAMS searches if you are having difficulty doing a search. Your initial estimate of search and review time and the volume of records is required within four (4) working-days from the date of this transmittal e-mail. NRC Form 496, "Report of Staff Resources for Processing FOIA/PA Requests" is now available on Informs for your use.

From:

Remsburg, Kristy

Sent:

Friday, May 31, 2013 11:08 AM

To:

Hirsch, Patricia

Subject:

RE: Appeal regarding FOIAs 2013-0008 and 2013-0106

Hi Pat,

(b)(5)

# Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission

Office: 301-415-1667

From: Hirsch, Patricia

Sent: Thursday, May 30, 2013 12:14 PM

To: Remsburg, Kristy

Subject: FW: Appeal regarding FOIAs 2013-0008 and 2013-0106

Importance: High

Do you know about this? We need to move this one! So let's talk! Thanks!

From: Sealing, Donna

Sent: Thursday, May 30, 2013 11:47 AM

To: Hirsch, Patricia

Subject: RE: Appeal regarding FOIAs 2013-0008 and 2013-0106

Importance: High

Pat,

(b)(5)

Thanks for your help.

Donna

From: Hirsch, Patricia

Sent: Thursday, May 30, 2013 11:37 AM

To: Sealing, Donna

Subject: RE: Appeal regarding FOIAs 2013-0008 and 2013-0106

Yes, looks okay—what is the document that secy needs to decide on?

From: Sealing, Donna

Sent: Thursday, May 30, 2013 9:50 AM

To: Hirsch, Patricia

Subject: FW: Appeal regarding FOIAs 2013-0008 and 2013-0106

Importance: High

Hi Pat.

I told Darren I'd coordinate with you and reply to Mr. Lochbaum after the meeting we had yesterday. Here's what I propose to send to him. Could you please take a look at it and let me know if you have any changes/comments.

Thanks.

Donna

Mr. Lochbaum,

I'd like to provide you an update on the status of the FOIA requests you addressed in your May 23 e-mail to Mr. Ash.

FOIA/PA 2013-0008: We are still coordinating the release of this document with the Office of the Secretary. Please be advised that as soon as we receive a releasability determination regarding the record we will provide a response to you.

FOIA/PA 2013-0106: This request was closed on April 1, 2013. The OIG withheld the records in their entirety under Exemption 7A due to their ongoing investigation. A scanned copy of our response is attached.

Please let me know if you have any additional questions regarding these requests.

Donna Sealing (301) 415-5804

From: Ash, Darren

Sent: Tuesday, May 28, 2013 10:13 AM

To: Sealing, Donna

Cc: Olive, Karen; Pretzello, Andrew; Bell, Marvin; Donnell, Tremaine; Rheaume, Cynthia

Subject: RE: Appeal regarding FOIAs 2013-0008 and 2013-0106

Donna.

Thank you very much.

Darren

From: Sealing, Donna

Sent: Tuesday, May 28, 2013 10:09 AM

To: Ash, Darren

Cc: Olive, Karen; Pretzello, Andrew; Bell, Marvin; Donnell, Tremaine; Rheaume, Cynthia

Subject: RE: Appeal regarding FOIAs 2013-0008 and 2013-0106

Good Morning Darren,

We will open his two new appeals and send acknowledgement letters to him on those. I will respond back to Mr. Lochbaum and cc you once I coordinate with Pat Hirsch. As you probably know we are having a meeting tomorrow and I hope to make progress on these requests.

#### Donna

From: Ash, Darren

Sent: Tuesday, May 28, 2013 9:12 AM

To: Sealing, Donna

Cc: Pearson, Laura; Rheaume, Cynthia; Olive, Karen

Subject: FW: Appeal regarding FOIAs 2013-0008 and 2013-0106

#### Donna.

Good morning. I received the message below from Mr. Lochbaum. Could you please look into the status. If you would prefer to get back to him directly, as opposed to me, please do. Please cc me on the reply. Thank you,

Darren

From: Dave Lochbaum [mailto:DLochbaum@ucsusa.org]

Sent: Thursday, May 23, 2013 3:51 PM

To: Ash, Darren

Subject: Appeal regarding FOIAs 2013-0008 and 2013-0106

May 23, 2013

Darren Ash Deputy Executive Director for Corporate Management U.S. Nuclear Regulatory Commission

Dear Mr. Ash:

NRC website <a href="http://www.nrc.gov/reading-rm/foia/foia-privacy.html">http://www.nrc.gov/reading-rm/foia/foia-privacy.html</a> designates you as the NRC Chief FOIA Officer. I am communicating with you in that capacity.

On October 9, 2012, I submitted a FOIA request to the NRC that was accepted that day and assigned no. FOIA/PA-2013-0008. I requested a single record and identified its date, its author, and its addressee. As of this morning, I still have not received that record. Prior to February 6, 2013, I contacted the FOIA officer and was told that this single document had been obtained and had gone to the Commission for determination whether it could be released and, if so, under what conditions. The FOIA officer offered to released other records in the meantime with partial responses. I was confused by this offer because I'd requested a single letter and envisioned partial releases being words or sentences thereof. By letters dated February 6, 2013, February 20, 2013, and April 9, 2013, I received Partial Responses 1, 2, and 3 respectively. They turned out to be some of the documents listed as references to the single letter I requested. But I've still not received that single letter or determination why it is being withheld.

On February 6, 2013, I submitted a FOIA request to the NRC that was accepted that day and assigned no. FOIA/PA-2013-001106. I sought emails to/from an NRC staffer regarding a specific subject matter. As of this morning, this request remains open.

The aforementioned NRC website states this disclaimer:

"Due to the high volume of FOIA requests received as a result of the unexpected events in Japan, response times to requests may be longer than normal." My calendar shows me that the "unexpected events" in Japan

occurred more than two full years ago, not recently. The NRC's ability to hid behind this excuse seems to have faded a long time ago.

I am appealing to you to take whatever actions are needed to get me the records I requested as provided for by the FOIA law.

As to the basis for this appeal, I call your attention to a recent court decision available online at

http://www.citizensforethics.org/page//PDFs/Legal/CREW%20v.%20FEC%20%28Commissioners%20Correspondence%29/Opinion\_CREW\_
vs\_FEC\_re\_correspondence\_DC\_Circuit\_04\_2\_2013.pdf?nocdn=1

The NRC did promptly acknowledge my FOIA requests. But I call your attention to the text in the paragraph at the top of page 11 of this court decision:

"The statutory requirement would not make a lot of sense if, as the FEC argues, the agency were merely required to state within 20 working days its future intent to eventually produce documents and claim exemptions."

And I call your attention to the text at the bottom of page 11:

"Under the FEC's theory, an agency could respond to a request within 20 working days in terms not susceptible to immediate administrative panel - by simply stating, in essence, that it will produce documents and claim exemptions over withheld documents in the future. Then the agency could process the request at its leisure, free from any timelines."

Sound familiar? It sounds all too familiar to me, substituting NRC for FEC and leaving all the rest the same.

I call your attention to the court's language in the first paragraph on page 16:

"As to actual production, FOIA requires that the agency make the records "promptly available," which depending on the circumstances typically would mean within days or a few weeks of a "determination," not months or years."

Produce documents within days or a few weeks, not months or years -- that's what this court ruled agencies are required to do to satisfy their legal obligations under FOIA.

In FOIA/PA-2013-0008, I sought a single record. I requested that record on October 9, 2012 -- 226 days ago or 32 weeks ago or 7.5 months ago. I have not received the single record I requested.

FOIA/PA-2013-0106 was submitted on February 6, 2013 -- 106 days ago or 15 weeks ago or 3.5 months ago. I have not received any records yet.

I appeal to you to rectify this matter as promptly as possible.

It certainly appears to me that the NRC is not meeting its legal obligations under the FOIA law. I have blindcopied the NRC's Office of the Inspector General on this email to make them aware of this apparent NRC wrongdoing.

Sincerely,

David Lochbaum
Director, Nuclear Safety Project
Union of Concerned Scientists
PO Box 15316
Chattanooga, TN 37415
(423) 468-9272 office
(423) 488-8318 cell

### Bates, Andrew

From:

Vietti-Cook, Annette

Sent:

Friday, May 31, 2013 12:46 PM

To:

Remsburg, Kristy

Cc:

Mike, Linda; Bates, Andrew

CC.

FW: Appeal regarding FOIAs 2013-0008 and 2013-0106

Subject: Attachments:

2013-0106-FinalResponse.pdf

What is the first item she is referring to?

From: Sealing, Donna

Sent: Friday, May 31, 2013 11:30 AM

To: Dave Lochbaum (DLochbaum@ucsusa.org)

Cc: Ash, Darren

Subject: FW: Appeal regarding FOIAs 2013-0008 and 2013-0106

Mr. Lochbaum,

I'd like to provide you an update on the status of the FOIA requests you addressed in your May 23, 2013 e-mail to Mr. Ash.

FOIA/PA 2013-0008: We are still coordinating the release of this document with the Office of the Secretary. Please be advised that as soon as we receive a releasability determination regarding the record we will provide a response to you.

FOIA/PA 2013-0106: This request was closed on April 1, 2013. The OIG withheld the records in their entirety under Exemption 7A due to their ongoing investigation. A scanned copy of our response is attached.

Please let me know if you have any additional questions regarding these requests.

Donna Sealing (301) 415-5804

From: Dave Lochbaum [mailto:DLochbaum@ucsusa.org]

Sent: Thursday, May 23, 2013 3:51 PM

To: Ash, Darren

Subject: Appeal regarding FOIAs 2013-0008 and 2013-0106

May 23, 2013

Darren Ash

Deputy Executive Director for Corporate Management

U.S. Nuclear Regulatory Commission

Dear Mr. Ash:

NRC website <a href="http://www.nrc.gov/reading-rm/foia/foia-privacy.html">http://www.nrc.gov/reading-rm/foia/foia-privacy.html</a> designates you as the NRC Chief FOIA Officer. I am communicating with you in that capacity.

On October 9, 2012, I submitted a FOIA request to the NRC that was accepted that day and assigned no. FOIA/PA-2013-0008. I requested a single record and identified its date, its author, and its addressee. As of this morning, I still have not received that record. Prior to February 6, 2013, I contacted the FOIA officer and was told that this single document had been obtained and had gone to the Commission for determination whether it

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On February 6, 2013, I submitted a FOIA request to the NRC that was accepted that day and assigned no. FOIA/PA-2013-001106. I sought emails to/from an NRC staffer regarding a specific subject matter. As of this morning, this request remains open.

The aforementioned NRC website states this disclaimer:

"Due to the high volume of FOIA requests received as a result of the unexpected events in Japan, response times to requests may be longer than normal." My calendar shows me that the "unexpected events" in Japan occurred more than two full years ago, not recently. The NRC's ability to hid behind this excuse seems to have faded a long time ago.

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As to the basis for this appeal, I call your attention to a recent court decision available online at

http://www.citizensforethics.org/page//PDFs/Legal/CREW%20v.%20FEC%20%28Commissioners%20Correspondence%29/Opinion\_CREW\_
vs\_FEC\_re\_correspondence\_DC\_Circuit\_04\_2\_2013.pdf?nocdn=1

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FOIA/PA-2013-0106 was submitted on February 6, 2013 -- 106 days ago or 15 weeks ago or 3.5 months ago. I have not received any records yet.

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It certainly appears to me that the NRC is not meeting its legal obligations under the FOIA law. I have blindcopied the NRC's Office of the Inspector General on this email to make them aware of this apparent NRC wrongdoing.

Sincerely,

David Lochbaum Director, Nuclear Safety Project Union of Concerned Scientists PO Box 15316 Chattanooga, TN 37415 (423) 468-9272 office (423) 488-8318 cell

NRC FO	RM 464 Part I	U.S. NUCLEAR REGULATORY COMMISSION	FOIA/PA	RESPONSE NUMBER	
(10-2012)	RESPONSE TO FREEDOM OF		2013-0106	1	
		INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST		PARTIAL	
REQUE: David	STER Lochbaum		APR 0 1 .20	13	
		PART I INFORMATION RELEASED			
	No additional a	agency records subject to the request have been located.			
H	Requested rec	cords are available through another public distribution program.	See Comments section		
	APPENDICES	Agency records subject to the request that are identified in the		ly available for	
Ш		public inspection and copying at the NRC Public Document Ro		y available for	
	APPENDICES	Agency records subject to the request that are identified in the public inspection and copying at the NRC Public Document Ro		made available for	
		formation on how you may obtain access to and the charges for com, 11555 Rockville Pike, Rockville, MD 20852-2738.	copying records located at the	NRC Public	
	APPENDICES	Agency records subject to the request are enclosed.			
		ct to the request that contain information originated by or of interest agency (see comments section) for a disclosure determination a		y have been	
	We are continu	uing to process your request.		J	
V	See Comment	s.			
-		PART I.A FEES			
AMOU	NT*	You will be billed by NRC for the amount listed.	None. Minimum fee thresho	ld not met	
\$ See	comments		Fees waived.	d not met.	
for c	ietails				
		PART I.B INFORMATION NOT LOCATED OR WITHHELE			
	categories of I (2006 & Supp	cords subject to the request have been located. For your informal aw enforcement and national security records from the requirement. IV (2010). This response is limited to those records that are sult notification that is given to all our requesters and should not be tall exist.	ents of the FOIA. See 5 U.S. bject to the requirements of the	.C. § 552(c) he FOIA. This	
V		ation in the requested records is being withheld from disclosure asons stated in Part II.	pursuant to the exemptions o	described in	
V	This determination may be appealed within 30 days by writing to the FOIA/PA Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Clearly state on the envelope and in the letter that it is a "FOIA/PA Appeal."				
-		PART I.C COMMENTS ( Use attached Comments continu	ation page if required)		
Record	ls relating to FO	OIA-2013-0106 are being withheld in their entirety under Exemp	otion 7A due to an ongoing (	IG investigation.	
1					
SIQUATU	RE - FREEDOM OF IN	LORISHOVACT AND PRIVACY ACT OFFICER			
86	MARIA	XXIaline			

NRC F	ORM 464 Part II	U.S. NUCLEAR REGULATORY COMMISSION	FOIA/PA	DATE	
RI	SPONSE TO	FREEDOM OF INFORMATION PRIVACY ACT (PA) REQUEST	2013-0106	APR 0 1 2013	
APPE	NDICES Records	PART II.A APPLICABL subject to the request that are described in the enci- on No.(s) of the PA and/or the FOIA as indicated beli-	sed Appendices are being wit	hheld in their entirety or in part under the	
		ithheld information is properly classified pursuant to i		3.3.355(2)).	
	Exemption 2: The w	ithheld information relates solely to the internal person	onnel rules and practices of NF	c.	
$\Box$	Exemption 3: The w	Ithheld information is specifically exempted from public	ic disclosure by statute indicat	ed.	
	Sections 141-1 2161-2165).	45 of the Atomic Energy Act, which prohibits the disc	dosure of Restricted Data or Fe	ormerly Restricted Data (42 U.S.C.	
	Section 147 of	the Atomic Energy Act, which prohibits the disclosure	e of Unclassified Safeguards in	nformation (42 U.S.C. 2167).	
		tion 253b, subsection (m)(1), prohibits the disclosure person under section 552 of Title 5, U.S.C. (the FOIA f the proposal.			
	Exemption 4: The w	vithheld information is a trade secret or commercial o	r financial information that is be	eing withheld for the reason(s) indicated.	
		n is considered to be confidential business (proprieta			
	accounting pro	n is considered to be proprietary because it concerns gram for special nuclear material pursuant to 10 CFF	R 2.390(d)(1).		
		n was submitted by a foreign source and received in		R 2.390(d)(2).	
	TO CONTRACTOR STATE AND A	harm an identifiable private or governmental interest ithheld information consists of interagency or intraag		able through discovery during litination	
LJ.	Applic	able privileges:	Con 115-15-16/15/2000		
	deliberative pro There also are	pocess: Disclosure of predecisional information would pocess: Where records are withheld in their entirety, to no reasonably segregable factual portions because process of the agency.	ne facts are inextricably intertw	rined with the predecisional information	
	Attorney work-	product privilege. (Documents prepared by an attorn	ey in contemplation of litigation	n)	
- 1	Attorney-client	privilege. (Confidential communications between an	attorney and his/her client)		
$\Box$	Exemption 6: The withheld information is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy.				
<b>V</b>		rithneld information consists of records compiled for I	aw enforcement purposes and	is being withheld for the reason(s)	
	focus of ento	build reasonably be expected to interfere with an enforcement efforts, and thus could possibly allow recipit from investigators).  Build constitute an unwarranted invasion of personal in the properties of the personal in t	ents to take action to shield pot	ould reveal the scope, direction, and lential wrong doing or a violation of NRC	
	(D) The informat	ion consists of names of individuals and other inform	N	ould reasonably be expected to reveal	
	identities of confidential sources.  (E) Disclosure would reveal techniques and procedures for law enforcement investigations or prosecutions, or guidelines that could				
	reasonably be expected to risk circumvention of the law.  (F) Disclosure could reasonably be expected to endanger the life or physical safety of an individual.				
'	OTHER (Specify)	or constitution of the state of	my steal safety of all more day.		
	L	PART II.B DENYING	OFFICIAL S		
Pursua	int to 10 CFR 9.25(	g), 9.25(h), and/or 9.65(b) of the U.S. Nuclear also seempt from production or disclosure, an		gulations, it has been determined	
interes	<ol> <li>The person resp</li> </ol>	onsible for the denial are those officials identifiated to the Executive Director for Operations (f	ed below as denying offici	als and the FOIA/PA Officer for any	
DE	NYING OFFICIAL	TITLE/OFFICE	RECORDS	DENIED - APPELLATE DEFICIAL EDO SECY IG	
Joseph	A. McMilian	OIG-Asst. Inspector General for Investigati	ions   FOIA-2013-0106	all records	
		İ.,		10.0	
			1		
U.S. N	uclear Regulatory C	writing within 30 days of receipt of this respons Commission, Washington, DC 20555-0001, for	e. Appeals should be mail action by the appropriate	ed to the FOIA/Privacy Act Officer, appellate official(s). You should	

# Vrahoretis, Susan

From:

Remsburg, Kristy

Sent:

Monday, June 03, 2013 2:16 PM

To:

Vrahoretis, Susan

Subject:

RE: Appeal regarding FOIAs 2013-0008 and 2013-0106

Great! Thanks for the update.

# Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667

From: Vrahoretis, Susan

Sent: Monday, June 03, 2013 2:11 PM

To: Remsburg, Kristy

Subject: RE: Appeal regarding FOIAs 2013-0008 and 2013-0106

Kristy,

(b)(5)	

Thank you,

### Susan

### Susan H. Vrahoretis

Legal Counsel
Office of Chairman Allison M. Macfarlane
United States Nuclear Regulatory Commission
Office: O17D07

F-mail: Susan. Vrahoretis@nrc.gov Office: (301) 415-1820 J

From: Remsburg, Kristy

Sent: Friday, May 31, 2013 3:11 PM

To: Vrahoretis, Susan

Subject: RE: Appeal regarding FOIAs 2013-0008 and 2013-0106

Thank you!

# Kristy

Kristy Remsburg

Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667

From: Vrahoretis, Susan

Sent: Friday, May 31, 2013 3:01 PM

To: Remsburg, Kristy

Cc: Vietti-Cook, Annette; Bates, Andrew

Subject: RE: Appeal regarding FOIAs 2013-0008 and 2013-0106

(b)(5)

Thanks, Susan

From: Remsburg, Kristy

Sent: Friday, May 31, 2013 1:07 PM

To: Vrahoretis, Susan

Cc: Vietti-Cook, Annette; Bates, Andrew

Subject: FW: Appeal regarding FOIAs 2013-0008 and 2013-0106

Hi Susan,

Forwarding this to you re: FOIA 2013-0008.

Thanks,

Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667

From: Vietti-Cook, Annette

Sent: Friday, May 31, 2013 12:46 PM

To: Remsburg, Kristy

Cc: Mike, Linda; Bates, Andrew

Subject: FW: Appeal regarding FOIAs 2013-0008 and 2013-0106

What is the first Item she is referring to?

From: Sealing, Donna

Sent: Friday, May 31, 2013 11:30 AM

To: Dave Lochbaum (DLochbaum@ucsusa.org)

Cc: Ash, Darren

Subject: FW: Appeal regarding FOIAs 2013-0008 and 2013-0106

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Donna Sealing (301) 415-5804

From: Dave Lochbaum [mailto:DLochbaum@ucsusa.org]

Sent: Thursday, May 23, 2013 3:51 PM

To: Ash, Darren

Subject: Appeal regarding FOIAs 2013-0008 and 2013-0106

May 23, 2013

Darren Ash Deputy Executive Director for Corporate Management U.S. Nuclear Regulatory Commission

Dear Mr. Ash:

NRC website <a href="http://www.nrc.gov/reading-rm/foia/foia-privacy.html">http://www.nrc.gov/reading-rm/foia/foia-privacy.html</a> designates you as the NRC Chief FOIA Officer. I am communicating with you in that capacity.

On October 9, 2012, I submitted a FOIA request to the NRC that was accepted that day and assigned no. FOIA/PA-2013-0008. I requested a single record and identified its date, its author, and its addressee. As of this morning, I still have not received that record. Prior to February 6, 2013, I contacted the FOIA officer and was told that this single document had been obtained and had gone to the Commission for determination whether it could be released and, if so, under what conditions. The FOIA officer offered to released other records in the meantime with partial responses. I was confused by this offer because I'd requested a single letter and envisioned partial releases being words or sentences thereof. By letters dated February 6, 2013, February 20, 2013, and April 9, 2013, I received Partial Responses 1, 2, and 3 respectively. They turned out to be some of the documents listed as references to the single letter I requested. But I've still not received that single letter or determination why it is being withheld.

On February 6, 2013, I submitted a FOIA request to the NRC that was accepted that day and assigned no. FOIA/PA-2013-001106. I sought emails to/from an NRC staffer regarding a specific subject matter. As of this morning, this request remains open.

The aforementioned NRC website states this disclaimer:

"Due to the high volume of FOIA requests received as a result of the unexpected events in Japan, response times to requests may be longer than normal." My calendar shows me that the "unexpected events" in Japan occurred more than two full years ago, not recently. The NRC's ability to hid behind this excuse seems to have faded a long time ago.

I am appealing to you to take whatever actions are needed to get me the records I requested as provided for by the FOIA law.

As to the basis for this appeal, I call your attention to a recent court decision available online at

http://www.citizensforethics.org/page/-/PDFs/Legal/CREW%20v,%20FEC%20%28Commissioners%20Correspondence%29/Opinion\_CREW vs\_FEC\_re\_correspondence\_DC\_Circuit\_04\_2\_2013.pdf/nocdn=1

The NRC did promptly acknowledge my FOIA requests. But I call your attention to the text in the paragraph at the top of page 11 of this court decision:

"The statutory requirement would not make a lot of sense if, as the FEC argues, the agency were merely required to state within 20 working days its future intent to eventually produce documents and claim exemptions."

And I call your attention to the text at the bottom of page 11:

"Under the FEC's theory, an agency could respond to a request within 20 working days in terms not susceptible to immediate administrative panel - by simply stating, in essence, that it will produce documents and claim exemptions over withheld documents in the future. Then the agency could process the request at its leisure, free from any timelines."

Sound familiar? It sounds all too familiar to me, substituting NRC for FEC and leaving all the rest the same.

I call your attention to the court's language in the first paragraph on page 16:

"As to actual production, FOIA requires that the agency make the records "promptly available," which depending on the circumstances typically would mean within days or a few weeks of a "determination," not months or years."

Produce documents within days or a few weeks, not months or years -- that's what this court ruled agencies are required to do to satisfy their legal obligations under FOIA.

In FOIA/PA-2013-0008, I sought a single record. I requested that record on October 9, 2012 -- 226 days ago or 32 weeks ago or 7.5 months ago. I have not received the single record I requested.

FOIA/PA-2013-0106 was submitted on February 6, 2013 -- 106 days ago or 15 weeks ago or 3.5 months ago. I have not received any records yet.

I appeal to you to rectify this matter as promptly as possible.

It certainly appears to me that the NRC is not meeting its legal obligations under the FOIA law. I have blindcopied the NRC's Office of the Inspector General on this email to make them aware of this apparent NRC wrongdoing.

Sincerely,

David Lochbaum Director, Nuclear Safety Project Union of Concerned Scientists PO Box 15316 Chattanooga, TN 37415 (423) 468-9272 office (423) 488-8318 cell

From:

Kilgore, Linda

Sent:

Wednesday, June 05, 2013 8:21 AM

To:

Remsburg, Kristy

Subject:

RE: FOIA PA-2013-0008 and Appeal 2013-0015A

Attachments:

AMM response\_FOIA-13-0008\_6 3 13.pdf; NRC 496A SECY referral appeal

2013-0015A.pdf; NRC 496A 2013-0008 SECY referral.pdf

Pat only sent the memo. The memo was addressed to you so you should get a response from the office I assume, but I'll send what I have.

From: Remsburg, Kristy

Sent: Wednesday, June 05, 2013 8:11 AM

To: Kilgore, Linda

Subject: RE: FOIA PA-2013-0008 and Appeal 2013-0015A

Did she forward the original referral package also? If so, I need a copy of the referral sheet w/the response and memo please.

Thanks,

# Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667

From: Kilgore, Linda

Sent: Wednesday, June 05, 2013 7:13 AM

To: FOIAPASECY Resource Cc: Remsburg, Kristy

Subject: FOIA PA-2013-0008 and Appeal 2013-0015A

Good morning,

(b)(5)	

Thanks Linda

5)(5)		

NRC F (10-2012	ORM 496A	U.S. NUC	LEAR F	REGULATORY COMMISSION	FOIA/PA	2013-0008
	Water and the same of the same	REFERRAL RELATED TO F	OIA/I	PA REQUEST	NUMBER	
	181	✓ INITIAL REQUEST		APPEAL	DATE 01/	25/2013
TO: F	FOIA COORDIN	ATOR Kristy Remsburg			OFFICE	SECY
FROI	M: FOIA/PA SPI	ECIALIST Linda Kilgore			TELEPHONE (301)	415-5775
We are this ref FOIA/F	Provide your office originating office's withholding for ear Provide a disclosurecord which was which your office i request.  The attached recordered to the NR (  Records that you i request are being clarification for rear below.  The enclosed recordetermined to be orequest was admit to the requester.  Complete NRC For Processing FOIA in Other required act	d(s) identified below or on the attached list for (s) to this office within 10 days of your receipt as concurrence or nonconcurrence in the recommendations for disclosure or chidentified record.  The determination/recommendation for each identified by another office as a record for s responsible and which is subject to this and/or bracketed information was. C for review by another agency  The provided this office in response to the FOIA returned to you for further review/ isons noted in the COMMENTS section are being returned because they were outside the scope of this request, or the inistratively closed without providing records for requests."  The provided in the COMMENTS section below the providing records are being returned because they were outside the scope of this request, or the inistratively closed without providing records for requests."  The provided in the COMMENTS section below the providing records. The providing records for requests. The provided in the COMMENTS section below the providing records as noted in the COMMENTS section below the providing records. The providing records are provided to the COMMENTS section below the providing records. The providing records are provided to the comment of the comment of the providing records are provided to the providing records. The providing records are provided to the providing re	of this a		omplete the action as regarding this repaired for initial esponse (with brad lease have your ord and provide a non or reaffirm the in appealed for lack onse to the initial be expected and oppeal and initial request and initial request and initial request or signed, please for to the requester.  appealed for initial and initial request to the requester.  appealed for initial and initial request to the requester.	al denial of record(s).  Al denial of record(s).  Al denial of record(s).  Al denial of record(s) and free conduct another ew disclosure nitial determination.  Of response.  FOIA request or explain the reasons quest are attached.  Aguacy of search, for records after is attached to all denial of fee waiver are attached. When are attached when are attached when are attached when all denial of record(s) exeted record(s) and isponse has been
SIGNAT	URE – FOIA COORD	INATOR			DATE	

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	Deff.	REFERRAL RELATED TO F	OIA	PA REQUEST	DATE	
	181	☐ INITIAL REQUEST	1	APPEAL		/30/2013
TO: F	OIA COORDIN	NATOR Kristy Remsburg			OFFICE	SECY
FRO	M: FOIA/PA SP	ECIALIST Linda Kilgore			TELEPHONE (301	) 415-5775
this ref	Frovide your office originating for ear Provide a disclos record which was which your office request.	rd(s) identified below or on the attached list for d(s) to this office within 10 days of your receipt se's concurrence or nonconcurrence in the s recommendations for disclosure or ach identified record.  ure determination/recommendation for each identified by another office as a record for is responsible and which is subject to this			ns regarding this appealed for init esponse (with bra Please have your rd and provide a on or reaffirm the	matter, telephone the ial denial of record(s). acketed record(s)) and office conduct another new disclosure initial determination.
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	request are being clarification for re	provided this office in response to the FOIA returned to you for further review/ asons noted in the COMMENTS section		The subject request has been Please have your office condu- responsive to this FOIA. A co- assist you in your search for a	oct another searc	h for records letter is attached to
П	determined to be	ords are being returned because they were outside the scope of this request, or the inistratively closed without providing records		The subject request has been A copy of the appeal, denial, a the appeal response has beer FOIA/PA Section for dispatch	and initial request n signed, please to the requester.	are attached. When forward it to the
		orm 496, "Report of Staff Resources for requests."		The subject request has been A copy of the appeal, denial re initial request are attached. V signed, please forward it to the requester.	esponse (with bra Vhen the appeal i	ecketed record(s)) and response has been
	Other required ac	tion as noted in the COMMENTS section below	<b>W</b> .	190 <b>0</b> (2000)		
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reques initial record	ster 3 partial resp referral. Now th is, A copy of the	A referral for re-review of 20 conses pertaining to all other items. To do not requester has filed an appeal for lack of appeal and initial request is enclosed.	ite we	have not received a response	from the offic	e regarding the
OFFIC	CE RESPONSE					
SIGNAT	TURE FOIA COORI	DINATOR			DATE	200

From:

Kilgore, Linda

Sent:

Wednesday, June 05, 2013 12:17 PM

To:

Remsburg, Kristy

Subject:

RE: FOIA PA-2013-0008 and Appeal 2013-0015A - question re 6/3 memo re record 2

Attachments:

AMM response\_FOIA-13-0008\_6 3 13.pdf; 9-18-12 letter.pdf

Importance:

High

Hi Kristy,

(b)(5)		

Thanks so much, Linda

From: Remsburg, Kristy

Sent: Wednesday, June 05, 2013 8:37 AM

To: Kilgore, Linda

Subject: RE: FOIA PA-2013-0008 and Appeal 2013-0015A

Thank you Linda. I haven't gotten it yet from Susan.

Thank you for closing us out for 0008 and 0015A.

Have a great day!

# Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667

From: Kilgore, Linda

Sent: Wednesday, June 05, 2013 8:21 AM

To: Remsburg, Kristy

Subject: RE: FOIA PA-2013-0008 and Appeal 2013-0015A

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To: Kilgore, Linda

Subject: RE: FOIA PA-2013-0008 and Appeal 2013-0015A

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# Kristy

Kristy Remsburg Office of the Secretary U.S. Nuclear Regulatory Commission Office: 301-415-1667

From: Kilgore, Linda

Sent: Wednesday, June 05, 2013 7:13 AM

To: FOIAPASECY Resource Cc: Remsburg, Kristy

Subject: FOIA PA-2013-0008 and Appeal 2013-0015A

### Good morning.

Good Morning,	
(b)(5)	

Thanks Linda

### Beasley, Benjamin

From: Criscione, Lawrence

Sent: Tuesday, September 18, 2012 7:25 PM

To: Macfarlane, Allison; clerner@osc.gov; Bell, Hubert; Lee, David; Zobler, Marian; Wiggins, Jim

Cc: matt\_buckham@demint.senate.gov; homeland.security@mail.house.gov;

michael.kiko@mail.house.gov; peter.spencer@mail.house.gov; valerie\_manak@epw.senate.gov; nathan\_mccray@epw.senate.gov; devon.hill@mail.house.gov; gracela.tatane@mail.house.gov; stephen.salsbury@mail.house.gov; jim\_mcgee@hsgac.senate.gov; marty.gelfand@mail.house.gov; vic.edgerton@mail.house.gov;

michal.freedhoff@mail.house.gov; Bernhard, Rudolph; Ferrante, Fernando; Hanna, John; Kanney, Joseph; Kozak, Laura; Loveless, David; Marksberry, Don; Mitman, Jeffrey; Passehl, Dave; Schmidt, Wayne; Vaughn, Stephen; Wood, Jeffery; Zoulis, Antonios; Galloway, Melanie; Giitter, Joseph; Leeds, Eric; Wilson, George; Perkins, Richard; Bensi, Michelle; Philip, Jacob; Sancaktar, Selim; Ottenberg, Geoffrey; Ellis, Kevin; Beasley, Benjamin;

Demoss, Gary, Coyne, Kevin; Coe, Doug; Correia, Richard

Subject: Inadequately Sized Flood Wall at Oconee Nuclear Station Could Lead to Fukushima Scenario

in the Event of a Failure of the Lake Jocassee Dam

Attachments: Jocassee Dam Failure Concerns.pdf; References.pdf

Chairman Macfarlane,

Please see the attached letter. I apologize for its length but it is written for a broad audience and concerns some technically complex issues with six years of regulatory background.

The risk that a core meltdown will occur at the Oconee Nuclear Station (ONS) is ten times greater than at similarly designed US reactor plants and the risk of a containment breach leading to significant public dose is 500 times greater.

ONS lies eleven miles downstream of the Lake Jocassee Dam. Since 2006 the NRC has known of a harrowing liability: a failure of Jocassee Dam would lead to all three reactors at ONS melting down within 10 hours and a potential breach of the containment buildings within 68 hours. This is very similar to the events which occurred at Fukushima Dai-ichi in 2011.

I am not directly involved with this issue. My involvement stems from concerns of a co-worker that serious safety concerns regarding ONS are being illegally withheld from the public under the guise of "Security-Related Information". My knowledge of this issue comes entirely from a cursory review of documents in ADAMS. From that review it is clear that:

- Despite knowing about the significant risk posed by a failure of Jocassee Dam since 2006, no efforts have yet been taken to substantially lower those risks. Although interim actions are being taken at Duke Energy, they are not of a nature that significantly lowers the risks to a par with typical US reactor plants.
- Most of the documents pertaining to this safety concern are not publicly available due to being stamped
  "Security-Related Information". However, none of these documents discuss security topics at all. Terrorism,
  sabotage, vandalism or any other intruder or insider threat are not mentioned. These documents deal wholly
  with the failure of Jocassee Dam due to natural phenomena or latent engineering/construction flaws.
- The annual risk of core damage at ONS is on the order of 1E-4/year and the annual risk of core damage followed by containment failure is on the order of 1E-5/year.

The items below are also apparent from the documents I have reviewed, although it is possible these items have been done and I have merely not located the documents affirming them:

After six years, the NRC does not have an accurate risk model of ONS which takes into account the liabilities
posed by a failure of Jocassee Dam.

- After six years, the NRC does not have an accurate assessment of the probability that ONS operators can prevent
  a containment failure in the 49 to 58 hours between the recession of the flood waters and the failure of the
  containment structures.
- The original due date for constructing adequate flood protection was November 30, 2011. After the Fukushima
  Dai-ichi accident, instead of being prioritized this due date has been extended to 2016. That's ten years after we
  first became aware of the liability.

Please note that the above three items are conjecture on my part as I have not been involved in any of the NRC discussions concerning this issue and it is likely there are many documents in ADAMS which I failed to find and review. However, from the documents I have reviewed, it is apparent to me that the above statements are true. The technical staff involved in this issue (i.e. whose names appear on the ADAMS documents) are Eric Leeds, Joseph Giitter, Melanie Galloway, George Wilson, Jeff Mitman as well as others. I have not spoken to any of these people other than Jeff Mitman and my short conversation with Jeff last Thursday was merely to get an understanding of the current status of the Jocassee Dam/ONS flood protection issue (i.e. I didn't want to bother writing to you if they have broken ground and actually started installing adequate flood protection). These individuals should be able to inform you of the specifics of the Jocassee Dam issue. I have copied them on this email and encourage them to inform you of any items in my letter which are not accurate. It is not my intent to misrepresent anybody, but being an outsider on this issue it is possible that I have.

The purpose of the attached letter is to (1) bring to your attention the issues regarding Jocassee Dam, (2) inform our congressional oversight committees of concerns I have that the NRC is not addressing the liabilities at ONS in a timely manner, and (3) bring to your attention that I support Richard Perkins' allegation that the issues surrounding Jocassee Dam have been inappropriately categorized as "Security-Related Information".

Although as an agency we tend to refer to them in the same breath, security and safety are separate issues. All manmade structures, no matter how well built, can be destroyed by some level of terrorist action if left unprotected. The solutions to terrorist threats are security measures that assess the credible threat and that guard access to critical areas sufficient to the assessed threat level. Construction margins and "defense-in-depth" modifications are the solutions to safety concerns not security concerns. The issues regarding Jocassee Dam are about construction margins that is, is the dam constructed to typical margins supporting a 2.8E-4/year failure rate) or to some type of exceptional margins. They have nothing to do with the necessity of whether or not security measures need to be taken to avert a terrorist threat. If the fact that ONS lies 11 miles downstream of Jocassee Dam makes it a security liability, then separate from the safety concerns discussed in my letter the NRC and the Department of Homeland Security need to secretively address security measures to protect the dam. After six years it is unacceptable to withhold vital safety liabilities from public disclosure solely because there may have been a possibility of a security threat. If there is a security vulnerability, then I would hope that it was addressed within months of us becoming aware of this issue in 2006. If anyone within the NRC believes there is still an unaddressed security liability, then separate from the safety solutions (e.g. building an adequately sized flood wall) the NRC should be ensuring that appropriate protective measures are in place to protect Jocassee Dam - merely withholding basic information regarding nuclear safety from public view is not the way to address a security threat.

V/r,

Lawrence S. Criscione, PE NRC/RES/DRA/OEGIB 573-230-3959 September 18, 2012

1412 Dial Court Springfield, IL 62704

Chairman Allison Macfarlane
US Nuclear Regulatory Commission
Mail stop O-16G4
Washington, DC 20555-0001

Dear Dr. Macfarlane:

Admiral Rickover served 63 years as an officer in the United States Navy – longer than any other naval officer in US history and possibly longer than any US government employee. He spent the last half of his career developing the nuclear powered submarine force and commercial nuclear power. He was more experienced than anyone else with regard to the functioning of the United States' military, industrial and governmental institutions when, in 1982, he gave a speech at Columbia University in which he noted:

A major flaw in our system of government, and even in industry, is the latitude to do less than is necessary. Too often officials are willing to accept and adapt to situations they know to be wrong. The tendency is to downplay problems instead of actively trying to correct them.

On March 11, 2011 an earthquake and tsunami struck the Japanese nuclear facilities at Fukushima Dai-ichi. The flood walls built to protect the reactor plants were too short and the 49 foot wave that hit the plants took out the emergency electric power. With no way to remove decay heat, over the next several days heat built up in the reactor cores until it melted the fuel, breached the steel reactor vessels, and eventually breached the containment buildings.

The utility owner — TEPCO — was aware of analyses that showed their tsunami walls were not adequately sized. But in the spirit of Admiral Rickover's quote, they were willing to accept and downplay situations they knew to be wrong instead of actively trying to correct them.

Why did the utility behave so irresponsibly? Because it is human nature to focus on immediate problems and to delay addressing "what if's". And a 49 foot tsunami was a very low probability "what if".

Please note that the reactors at Fukushima survived both the earthquake and the tsunami. The reactors themselves did not start to fail until hours later. It was the support systems for providing emergency cooling to the reactors which were destroyed in the earthquake.

In Oconee County, South Carolina there are three reactor plants in a plain downstream of the Jocassee Lake Dam. These reactors and their containment buildings are designed to withstand floods, tornados and earthquakes. But are their support systems?

About four times a day, each reactor at Oconee produces the equivalent energy as released in the atomic bomb dropped on Hiroshima. But unlike that A-bomb, instead of releasing this energy in less than a nanosecond, the equivalent energy release occurs over a six hour period allowing plant systems to remove the energy and convert it to electricity.

Following a reactor shutdown, the reactors at Oconee still produce a significant amount of energy due to the inventory of radioactive waste nuclides stored in their cores. The energy released over the first three days is equivalent to roughly a tenth of the energy released at Hiroshima. As long as this energy is removed, there is no problem. But what if it cannot be removed? What if it builds up in the reactor cores and containment buildings? Then, just like at Fukushima, this energy will cause the fuel to melt and the containment buildings to breach. Unlike Fukushima, the fallout of radionuclides released during this accident will not mostly blow out to sea — depending on the wind they will blow towards Knoxville, Charlotte, Columbia, Atlanta or Huntsville. Any which way they get blown, these radionuclides will fall out over agricultural lands.

The Oconee Nuclear Station (ONS) is equipped with a Standby Shutdown Facility (SSF) which contains the emergency equipment necessary to remove the decay heat during an emergency. Just like at Fukushima, this equipment is protected from flooding by a flood wall, and just like at Fukushima that flood wall is inadequately sized.

A five foot flood wall was installed around the Standby Shutdown Facility in 1984 based on an assessment that, were Jocassee Dam to fail, the SSF would experience flood levels of 4.71 feet. However, according to the NRC's publicly available April 28, 2006 inspection report on Oconee:

...a December 10, 1992 Jocassee Dam Failure Inundation Study (Federal Energy Regulatory Commission Project No. 2503) predicted that a Jocassee Dam failure could result in flood waters of approximately 12.5 to 16.8 feet deep at the Oconee Nuclear Site.

So by 1993 Duke Energy was aware that their flood wall at Oconee was 7 to 11 feet too short. And just like TEPCO, they adapted to a situation they knew to be wrong and, instead of actively correcting the inadequately sized flood wall, they worked to downplay the problem.

On August 13, 2003 the flood wall around Oconee's Standby Shutdown Facility was breached in order to run a "temporary" cable. Seven hundred twenty days later (on 2005-08-03) this breach was finally corrected two months after it had been brought to the attention of the plant by the NRC's resident inspector (on 2005-06-02).

The breach of the flood wall caused the NRC Resident Inspectors at Oconee to look into the licensing basis for the flood wall and to become aware of the 1992-12-10 inundation study. The issue eventually was referred to the Office of Nuclear Reactor Regulation (NRR).

On August 15, 2008 the Division of Operating Reactor Licensing (NRR/DORL) sent a letter to Duke Energy requesting "additional information regarding external flooding of the Oconee site, including the consequences of a Jocassee Dam failure." At this point, it appears DORL was refusing to accept a situation they suspected to be wrong and refusing to allow Duke Energy the latitude to do less than is necessary.

For reasons unknown to me, the 2008-08-15 letter from NRR/DORL to Duke Energy has the following markings:

Limited Internal Distribution Permitted
Official Use Only – Security-Related Information

There is nothing in the letter which is classified with regard to national security. There is nothing in the letter which is Safeguards. There is no discussion in the letter about any security related topics. In fact, an electronic word search of the letter only finds the word "security" in the "Security-Related Information" markings.

Why is this document for "Official Use Only"? Why is it "Security-Related Information"? Why is only "Limited Internal Distribution Permitted"? I see nothing in the 2008-08-15 letter from NRR/DORL to Duke Energy which prevents it from being released to the public. Is "transparency" still something we've committed to?

This is not the only letter regarding Jocassee Dam which NRR has marked as security related. Is there a security concern regarding Jocassee Dam? I have seen nothing in these "security

related" letters regarding terrorist threats to the dam. All of these letters deal entirely with safety concerns from natural phenomena and latent construction or engineering liabilities.

Duke Energy responded to our 2008-08-15 letter on September 26, 2008. Duke marked its response as "Sensitive Information". Note that they do not use the NRC term "Security-Related Information". And just like in the NRC's 2008-08-15 letter, the word "security" does not appear in the Duke 2008-09-26 letter.

However, Duke's letter is without doubt "sensitive information". If I were Duke, I would not want the public to see this information. I would not want the public to know how I allow my nuclear managers the latitude to do less than is necessary, how my corporate officials are willing to accept and adapt to situations they know to be wrong, and how my utility succumbs to the tendency to downplay problems instead of actively trying to correct them. I would be very sensitive about these things if I were Duke. But I'm not Duke. And neither are you. We're the NRC and as such have an obligation to transparently allow the public to see correspondence with Duke Energy regarding a significant safety concern.

In their 2008-09-26 letter, Duke provides the following scenario and analysis regarding a failure of Jocassee Dam:

Notification from Jocassee would occur before a total failure of the dam; however, for the purposes of this timeline, notification is assumed to be at the time the dam fails. Following notification from Jocassee, the reactor(s) are shutdown within approximately 1 hour. The predicted flood would reach ONS in approximately 5 hours, at which time the SSF walls are overtopped. The SSF is assumed to fail, with no time delay, following the flood level exceeding the height of the SSF wall. The failure scenario results are predicted such that core damage occurs in about 8 to 9 hours following the dam break and containment failure in about 59 to 68 hours. When containment failure occurs, significant dose to the public would result.

The scenario description above does not acknowledge that the postulated flood arrives at the site and then recedes rather quickly. In the above scenario, ONS is no longer flooded approximately 5 hours after the onset of initial flooding (10 hours following failure of the dam). At this point, recovery actions can begin to mitigate the loss of AC power and thus extend the time to a potential containment breach.

With regard to the first paragraph, please note that core damage occurs in about 8 to 9 hours following the dam break and containment failure in about 59 to 68 hours. Also note Duke's assertion that when containment failure occurs, significant dose to the public would result.

With regard to the second paragraph, Duke appears to be suggesting that reinforcements can be sent to the plant and possibly restore equipment before containment failure. Consider the environment they will be working in though. The dam failure will not just impact the nuclear station. Roads and bridges could be washed away or blocked with downed trees and utility poles. A General Emergency will be declared at the nuclear station which will trigger an evacuation of the area. And of course the evacuation of these citizens will be severely impacted by the poor road conditions and the search and rescue operations being conducted due to the flood.

The good news, however, is the "nuclear side" of this event will likely not result in any loss of life. Imminent deaths might possibly result from the dam failure, but just like at Fukushima the nuclear aspect of the incident should be entirely contained to lost property – at least on the "tangible" side.

But probably more tragic than the tangible loss of property are the intangibles. Three reactors melting down and breaching their containments will affect nuclear utilities worldwide. Our nuclear navy, which so far has been unaffected by any loss of public confidence concerning Chernobyl and Fukushima, would likely not be so lucky were an event to occur in the US. And consider "acceptable" levels of radioactive fallout in Columbia, Charleston or Atlanta. What will that do to home prices? What will it do to local economies? How will it affect people's mental health? Will textile manufacturers want to buy cotton from even minimally contaminated areas? Will cigarette companies buy tobacco from these areas? Will anyone buy their produce and grains? Their hogs and chickens?

Also in their 2008-09-26 Duke Energy states that they do not consider the failure of Jocassee Dam to be a credible event for which the Oconee Nuclear Station must be protected against:

When considering the overall performance history of modern rock-fill dams, there is no evidence to suggest that a Jocassee dam failure is credible.

There are two general methods for determining "adequate protection" at nuclear plants: deterministic and probabilistic. The deterministic method assumes one piece of equipment fails and analyzes whether the remaining equipment can prevent core damage. Per the quote on the previous page, Duke Energy's deterministic assessment is that a failure of Jocassee Dam

Human experience shows that people, not organizations or management systems, get things done.

When she received Mr. Giitter's letter, Ms. Galloway recognized that in the letter we were allowing Duke Energy the latitude to do less than what is necessary. By his letter, we were accepting and adapting to situations we knew to be wrong. We were succumbing to the human tendency to downplay problems instead of actively trying to correct them. Ms Galloway also recognized that the organizations and management systems within the NRC were not getting done what needed to be done. So she, as a capable and concerned nuclear professional – not due to her significant position in the organization as a deputy division director but merely as a person determined to get things done – filed a Non-Concurrence form with the hope of revising Mr. Giitter's letter into something that actually required Duke Energy to take actions to protect its Standby Shutdown Facility from potential inundation from flood waters in the event of a failure of Jocassee Dam.

In her Non-Concurrence Ms. Galloway provides the following background information:

- No other potential initiating event at Oconee is as risk significant. The probability of core damage from a Jocassee Dam failure is three times higher than the sum total probability of core damage from all initiating events. Duke has acknowledged that, given a Jocassee Dam failure with subsequent site inundation, all three Oconee units will go to core damage; that is, given a dam failure, the conditional core damage probability (CCDP) is 1.0. Thus, for a Jocassee Dam failure frequency of 2E-4, there is a conditional core damage frequency (CCDF) of 2.0E-4 (CCDF = IEF X CCDP).
- For a Jocassee Dam failure, using potentially optimistic assumptions, Duke estimates that containment will fail approximately 59 to 68 hours after dam failure without mitigating actions.
- Under the dam break conditions, resultant flood waters and infrastructure damage would affect public evacuation and potentially affect Emergency Operations Facility response capability. Duke has not demonstrated that its radiological emergency plan actions can be adequately implemented under these conditions.

As already mentioned, Melanie Galloway was the Deputy Director of the Division of Risk Assessment in the NRC's Office of Nuclear Reactor Regulation. Hence, the language she used in her Non-Concurrence were the terms of risk professionals; for example: "given a dam failure, the conditional core damage probability (CCDP) is 1.0".

Conditional Core Damage Probability (CCDP) is the probability that, given a specific event, the circumstances of the event will lead to damage of the reactor core. Like all probabilities, CCDP must be a number between 0 and 1. A value of "0" means that given only that specific event there is no chance that core damage will occur. A value of "1" means that given that specific event (e.g. a failure of Jocassee Dam) then core damage will certainly occur. For most initiating events (e.g. tornados, loss of offsite power, fires) the CCDP is typically a very small fraction on the order of one ten thousandth to one tenth. "1.0" might not sound big, but it's enormous.

The point of the last sentence of Ms. Galloway's first bullet is that, since core damage is a certainty given a failure of Jocassee Dam, then the probability that all three reactors at Oconee will melt down is equal to the probability of the failure of Jocassee Dam. Since the probability of failure of Jocassee Dam failing in any given year is 2E-4, the probability of the three reactors at ONS melting down is 2E-4 in any given year. As a point of reference, this is a number that is about ten times higher than at a typical US nuclear reactor plant. However, the risks at Oconee are actually much worse than that due to the uncertainty about containment failure.

A nominal value for the probability of containment failure at US Pressurized Water Reactors (PWRs) is 1E-2 or 0.01. In other words, containment's survivability is nominally 99% at a US PWR. However, does anyone believe there is a 99% chance that, after the flood waters recede, Duke Energy will be able to restore cooling to their flood damaged facilities? Although they do have 49 to 58 hours, keep in mind that the infrastructure will have been significantly damaged by the flood waters. There will likely be washouts at roads and bridges and obstructions from trees and other debris. Having met operators from ONS, I cannot discount their efforts. With luck going their way, there is certainly a chance they can succeed. But I do not have 99% confidence in them. The operators at Fukushima weren't successful at it.

What is your confidence in them? If you asked NRR, what would they tell you their confidence is? I may be wrong, but I don't think NRR has an official position on it. I have seen no estimates in any of the documents I have reviewed. But this is an extremely important number. It is what separates Three Mile Island from Fukushima. At Three Mile Island the containment structure did not fail whereas at Fukushima at least one of them did. After knowing about this problem for over 6 years, it is negligent for the NRC to not possess a formal estimate of the probability that following a failure of Jocassee Dam the ONS employees will be able to restore heat removal prior to containment failure. Please note that I am not accusing NRR of negligence because, for all I know, this probability has been analyzed by the NRC and I have just not been able to locate it. However, if NRR cannot provide you a formal estimate at this point (i.e. 6 years after knowing about the ONS issue and 18 months after Fukushima) then they have been negligent in their duties.

As feared by Ms. Galloway, the latitude provided by Mr. Giitter's 2009-04-30 letter resulted in further attempts by Oconee to downplay the problem of its inadequately sized flood wall.

By February 2010, the issues regarding Jocassee Dam and the SSF flood wall were still not yet addressed. George Wilson, the NRC's Dam Safety Officer in the Office of Nuclear Reactor Regulation, was concerned with what he was experiencing regarding Oconee. Mr. Wilson observed that the root of the problem with Oconee was a combination of (1) overlooked items during initial plant licensing and (2) a change in knowledge regarding plant hazards. In the case of Oconee, when the reactors were licensed in the early 1970's it was overlooked that they required protection from a failure of Jocassee Dam. As knowledge regarding plant hazards improved, it was recognized in the 1980's that a flood wall was required to protect Oconee's Standby Shutdown Facility. However, the flood height was only estimated to be 4.71 feet. As modeling and assessment procedures improved, it was recognized in the 1990's that the 5 foot flood wall was not adequate. Mr. Wilson had concerns that similar problems might exist at other nuclear facilities and used the Oconee/Jocassee issue as the basis for a memo requesting a Generic Issue on flooding from upstream dam failures.

Although Mr. Wilson's February 2010 memo was nominally sufficient to implement a Generic Issue, the Office of Nuclear Regulatory Research (RES) requested additional information. On July 19, 2010 the Division of Risk Assessment of NRR (NRR/DRA) submitted a memo to the Division of Risk Assessment of RES (RES/DRA) requesting a Generic Issue on flooding hazards due to upstream dam failures.

This memo exists in the Agencywide Documents Access and Management System (ADAMS) under Accession Number ML101900305. Like all the other documents produced by NRR regarding Jocassee Dam, this memo is stamped "Official Use Only – Security-Related Information". And like all the other documents, there are no security issues discussed anywhere in the document. The document entirely concerns safety risks associated with natural phenomena or latent hazards resulting from flaws in construction and/or engineering.

In August 2010 RES/DRA assembled a team which began producing a screening report for evaluating whether or not there was strong enough basis for generating a Generic Issue.

Meanwhile, NRR's sparring with Oconee over Jocassee Dam continued. On March 15, 2010 NRR/DRA completed a study of the Jocassee Dam and analyzed it against other large dams in order to determine a reasonable annual failure probability. Again, like all NRR documents concerning a failure of Jocassee Dam, this study was marked "Security-Related Information" despite being solely concerned with the failure of Jocassee Dam due to environmental

phenomena and latent construction/engineering issues. No mention is made of terrorism, sabotage or vandalism. The fact that the Oconee Nuclear Station sits 11 miles downstream of Jocassee Dam is not mentioned in the report. In fact, the report neither mentions Oconee Nuclear Station, Duke Energy, Oconee County, core damage, radioactivity nor any other indication that a breach of Jocassee Dam could lead to a nuclear accident.

The annual failure probability of Jocassee Dam that was calculated by the study was about 2.5E-4/year. That equates to: a 0.00025 probability, a 0.025% chance, or a chance of 1 in 4000 years.

What exactly is 4000 years? Four thousand years ago Rome was just an outpost along the Neolithic salt trade routes. Wolves still roamed her Seven Hills. Lions roamed the hillside where in a later millennium the Athenians would build the Parthenon. It was before Alexander, Socrates, Homer and even Achilles. The ancestors of Abraham were still eating bacon and living in Ur. Four thousand years is a long time – it is a Biblical length of time. An annual failure probability of 2.5E-4/year suggests that in this 4000 year expanse of history one external event (e.g. a "5000-year" paleoflood, an earthquake) capable of triggering mechanisms leading to the failure of Jocassee Dam might have occurred in northwest South Carolina.

Compare this to the annual failure probability which Duke Energy uses: 1.3E-5/year. That equates to: a 0.000013 probability, a 0.0013 chance, or a chance of 1 in 76923 years.

Seventy-seven thousand years ago modern men had not yet left Africa. Europe was still the domain of mammoths and Neanderthals. South Carolina is not known for its earthquakes and floods, but 77,000 years is a long time — a "Paleolithic" length of time. How many risk significant earthquakes and paleofloods have occurred in Oconee County in the last 77,000 years? Duke Energy's numbers suggest only one. The NRC's numbers suggest about 20.

The NRC's annual failure frequency was based on a statistical analysis of all available data on dams similar to Jocassee. The 5<sup>th</sup> percentile of their data was 1.3E-4/year which is ten times the frequency being used by Duke Energy.

An author of the study pointed out to me that it is quite possible that the failure probability of Jocassee Dam is 1.3E-5/year, but from the data he's seen, from the calculations he's done, and from the Duke Energy submittals he's reviewed, he considers Duke's 1.3E-5/year estimate to be indefensible. Although it's possible the Duke number is accurate, the currently available data does not support it. Should we — as an agency — be using a failure probability which was calculated by our own risk experts and which can be defended by the available data, or should

we be accepting a failure rate calculated by Duke Energy which is indefensible? It depends: is it our goal to downplay this problem or to actively seek its adequate resolution?

In a June 3, 2010 letter Duke Energy provided the NRC with a summary of fifteen "External Flood Commitments" that it was implementing to mitigate the consequences of a failure of Jocassee Dam. Although all 15 commitments were important actions to take, none of them would have much appreciable impact either on lowering the failure probability of Jocassee Dam or on mitigating the consequences of a failure.

On June 22, 2010 the NRC issued a Confirmatory Action Letter (CAL) directing Oconee to:

- "...submit to the NRC by August 2, 2010, all documentation necessary to demonstrate to the NRC that the inundation of the Oconee site resulting from the failure of the Jocassee Dam has been bounded." Or, in other words, perform a study and determine the worse case credible conditions that could result in a failure of Jocassee Dam.
- 2. "...submit by November 30, 2010 a list of all modifications necessary to adequately mitigate the inundation..."
- 3. "...make all necessary modifications by November 30, 2011."

To my knowledge, this letter is the first time the NRC gave Duke Energy a date by which they needed to actively try to correct the deficiently sized flood wall. By item 1 above Duke Energy had until 2010-08-02 to determine the highest credible water height that a failure of Jocassee Dam would produce at Oconee. By item 2 Duke Energy had until 2010-11-30 to list what modifications needed to be constructed or installed to protect the Standby Shutdown Facility from the highest credible water height. By item 3 Duke Energy needed to have the modifications completed. This letter is an example of the NRC finally taking away the latitude for Duke Energy to do less than is necessary to correct a situation they know to be wrong. Unfortunately the NRC later relaxed their stance and again succumbed to the tendency to downplay problems instead of actively trying to correct them.

Duke Energy met its 2010-08-02 deadline to provide the NRC with a bounded inundation study. On November 29, 2010 Duke Energy informed the NRC that they would need more time to compile a list of modifications necessary to adequately mitigate the postulated inundation at Oconee due to a failure of Jocassee Dam. Duke Energy gave themselves a new due date of April 30, 2011 for determining the modifications needed and was silent on whether or not they would get these modifications done by the November 30, 2011 deadline.

In January 2011 Eric Leeds was preparing a letter to Oconee concerning the NRC's acceptance of the information contained in Duke Energy's 2010-08-02 inundation study. Jeff Mitman of NRR/DRA/APOB was on the review chain for Mr. Leeds's letter and filed a Non-Concurrence form against it on 2011-01-10. Mr. Mitman's primary concern was that Duke's analysis was a "sunny day" analysis. For some reason (possibly due to possessing common sense) Mr. Mitman believes that an abnormally large amount of rainfall could increase the probability of a failure of Jocassee Dam and that the "bounding" case for an inundation study should take the possibility of dam failure during severe storms into account.

NRR answered Mr. Mitman's concerns in part by saying that an overtopping of Jocassee Dam due to severe rainfall was not credible. Jocassee Lake has two saddle dikes which are the same elevation as the top of Jocassee Dam but not as tall. NRR argued reasonably that since these saddle dikes are the same height as Jocassee Dam then they would overtop concurrent with Jocassee Dam. Since these saddle dikes are not as well built as Jocassee Dam, NRR postulated they should fail prior to the dam and thereby drain the reservoir by 35 feet at which point water would no longer flow over the main dam. NRR may have a point, but there is something curious about their argument: why is NRR, an office of the NRC, making this argument for Duke Energy? It is our role to review and challenge Duke's analysis, not to internally defend it for them. Our focus seems more on downplaying and concealing the problem instead of actively working to get Duke Energy to correct it.

On March 10, 2011 the status of the Oconee/Jocassee issue was as follows:

- In a January 28, 2011 letter to Oconee, Eric Leeds of NRR accepted Oconee's 2010-08-02 inundation study which was based on a "sunny day" failure of Jocassee Dam and did not consider failure modes resultant from severe rainfall or earthquakes.
- Duke Energy had missed its 2010-11-30 deadline for submitting its list of modifications for adequately protecting the Standby Shutdown Facility at Oconee Nuclear Station from a failure of Jocassee Dam and had committed to providing this list by 2011-04-30.
- The screening analysis for a Generic Issue on flooding due to upstream dam failures had been prepared by the Office of Nuclear Regulatory Research and was in "final draft" form and ready for routing.

On March 11, 2011 the Fukushima Dai-ichi nuclear complex in Japan was struck by a beyond design basis earthquake and 50 minutes later by a 49 foot tsunami which breached its 19 ft seawall. Within a few days, three of the reactor cores at Fukushima Dai-ichi had melted down, breached their reactor vessels and exploded the buildings housing their containments. The NRC recommended a 50 mile evacuation of US citizens from around the site.

In the Office of Nuclear Regulatory Research, we assumed the Fukushima Dai-ichi accidents would be a "big deal" with regard to GI 204 on flooding due to upstream dam failures; yet, incredibly, it still took an additional 10 months for GI 204 to be approved.

Part of the hold up on releasing GI 204 was the fact that many of the references for it (e.g. the correspondence with Duke Energy regarding Jocassee Dam) had been labeled "Security-Related Information" by NRR, but RES could not determine any justification for marking the GI 204 screening report as "Security-Related" since it dealt entirely with safety issues. Every time NRR requested that all "Security-Related Information" be removed from the GI 204 screening report, RES's reply (i.e. the authors) was that nothing in the report was related to security.

Prior to its release, the screening report for GI 204 was reviewed by the Department of Homeland Security which found that none of the information related to Jocassee Dam and Oconee Nuclear Station was security sensitive. Despite this finding, the decision was made by the NRC to redact the screening report prior to releasing it to the public.

The NRC can redact anything it voluntarily releases without providing any justification. However, when something is being involuntarily released through a Freedom of Information Act (FOIA) request, the NRC must provide a reason for everything which is exempted from release.

On January 4, 2012 a reporter submitted a Freedom of Information Act request for documents concerning GI 204. In response to this request, the NRC released the GI 204 screening report with heavy redactions. Many of these redactions and their justifications are nonsensical. For example, on page 9 of the report (included in redacted and unredacted form as an enclosure to this letter) there is the following sentence:

In 2010, NRC staff produced a report that estimates a typical dam failure rate for large rock fill dams similar to the Jocassee Dam to be 2.8(10)<sup>-4</sup>/year

The above sentence was redacted. The justification given for the redaction was FOIA exemption 7(F):

Disclosure could reasonably be expected to endanger the life or physical safety of an individual.

How is anyone's life or physical safety in jeopardy by disclosing the NRC's estimated failure rate for Jocassee Dam? The only possible answer I can come up with is that someone within the

NRC believes that Jocassee Dam might be the object of a terrorist threat. But even if this were true (and I have seen <u>no</u> mention of security concerns in any document referenced by the GI 204 screening report), how would knowing the NRC's estimated failure rate help the terrorists?

Our estimated failure rate of Jocassee Dam is based entirely upon natural phenomena and construction/engineering flaws. Terrorist activity and internal sabotage were in no way included in the study that generated this estimation. Does Al Qaeda really care what the NRC's estimated failure rate due to natural phenomena is?

There are some (e.g. me) that believe the 2.8E-4/year failure rate is being withheld from the public because it is embarrassing to the NRC and embarrassing to Duke Energy.

What does a 2.8E-4/year failure rate mean? It means that in any given year there is a probability of 0.00028 that Jocassee Dam will fail. Since, as mentioned above, the probability that a failure of Jocassee Dam will lead to the meltdown of all three reactors at Oconee, a 2.8E-4/year failure rate of Jocassee Dam equates to an annual probability of 0.00028 that three reactor cores will melt down in Oconee County, South Carolina.

What are the odds that one of the core meltdowns will lead to a failure of its containment building and the release of a significant amount of radioactivity? I don't have a good answer because I have yet to see a NRC or Duke Energy assessment of the likelihood that the ONS operators can restore cooling to containment within the approximately 2½ day window prior to containment failure. That's not to say this study doesn't exist, but if it does I have not seen it. I can only make assumptions.

Since I personally know some of the ONS operators having served with some in the navy and having met others at functions of the Professional Reactor Operator Society, I am willing to give them better odds than the Fukushima operators. I'll give them 2 to 1 odds. That is, for each reactor they have a 67% chance of being successful in restoring cooling prior to containment failure. Please keep in mind the conditions they will be working under. A "tsunami" of water from the dam break has breached their inadequately sized flood wall and flooded out all their normal equipment. They have no installed electric power and much of the installed mechanical equipment in unusable due to having their electric motors flooded. Unanticipated equipment that was not staged before the dam break will need to be brought in over a severely compromised infrastructure and through an evacuating populace.

A 67% chance of success integrated over three reactor plants gives a 70% chance that at least one containment building will fail. This yields an annual frequency of 2E-4/year that a

significant release of radioactivity will occur in Oconee County, South Carolina. Those are odds that are about 500 times greater than at a typical US reactor plant. Yet these are still relatively good odds for the people of Oconee County. They are equivalent to the odds of being dealt a four of a kind. Most poker players have never been dealt a four of a kind and probably never will.

However, these are the annual odds. That is, the people of Oconee County live with these odds every year. Integrated over the 22 years the ONS reactors have left on their licenses, the probability becomes 0.43% or about the chance of being dealt a straight. Being dealt a straight is rare, but I personally beat twice those odds on the first poker hand I was ever dealt. As a thirteen year old summer camper, my first poker hand ever was a flush. My poker career has gone downhill ever since, but I know from personal experience that being dealt a hand that beats a straight is credible.

Nonetheless, a straight is a really good hand. As long as I had the chips, I'd keep up with the ante if I were holding a straight.

But risk involves more than just probability. Risk also involves hazard. I would be willing to bet a few hundred dollars on a straight, but I certainly wouldn't "bet the farm" on it. And the NRC should not allow Duke Energy to bet all the farms in Oconee County on it.

However, there is more to gambling than risk. There is also reward. And the rewards from Oconee Nuclear Station should not be ignored.

The greatest rewards from ONS are paid out to the people who hazard the greatest risk: the residents of Oconee County, South Carolina. I have no data to back up any of the items below, but based on my professional experience (I have worked at eight rural reactor plants and have visited seven others) I am confident of the following:

- Oconee Nuclear Station is likely the largest employer in Oconee County and the salaries
  and wages paid there are likely double the average salary and wage rate for typical
  residents of the county.
- ONS likely pays more in property taxes than any other entity in the county and is responsible for a significant portion of the funding of the county's public schools.
- For every Duke Energy employee at ONS, there is likely a non-Duke employee in the county who receives a significant portion of their livelihood from either doing business directly with ONS or with the families of employees who work at ONS.

Would I be willing to bet my life and the lives of my family on a straight for the rewards mentioned above – or for any rewards for that matter? Of course not. But Oconee Nuclear Station isn't gambling with anyone's life. The accident scenario at Oconee takes over two days to unfold and, even once it occurs, it is unlikely to release significant doses in terms of public health. What is being hazard is people's property. And although Duke Energy could not pay me enough to compensate me for the health of my family, they could certainly pay me for the loss of my home or the loss of my farm.

As a citizen I'm not opposed to Duke Energy not doing anything. As long as the shareholders of Duke Energy, the residents of Oconee County, the citizens of neighboring counties and states, and the elected representatives at the local, state and federal level are all aware of the risks and are willing to accept them, then I have no problems with them betting their futures on a "straight". If there are affected people who have an issue with the risks at ONS, there are a variety of means which Duke can employ to lower their risk by "improving their hand" (e.g. construct a flood berm around the site) or lower their risk by lowering the hazard (e.g. fund an insurance policy that covers the property losses of an accident). As long as the approach taken is transparent to the citizens involved, I do not care what solutions are implemented — I trust our democratic and republican institutions to more fairly deal with the public than a secretive commission of scientists crunching risk calculations.

However, as a regulator I am very concerned about what has been occurring. The decision to do nothing has not been formally made but rather has occurred by default due to bureaucratic ineptitude. I have encountered no documentation that, after knowing about this problem for six years, the NRC has:

- Determined a baseline risk for the ONS reactors which takes into account the NRR/DRA/APOB estimated probability of a failure of Jocassee Dam and an analysis of Duke Energy's ability to restore cooling prior to containment failure.
- Set a hard and fast due date for Duke Energy to implement modifications at ONS to adequately protect the facility from a failure of Jocassee Dam (other than the 2011-11-30 due date which in the end was not hard and fast)
- Informed the external stakeholders (e.g. the citizens of Oconee County, the American public, the US Congress, other nuclear utilities, and many other specific groups that would directly suffer from a reactor accident in the US) about the risks they face due to a failure of Jocassee Dam.

Maybe the NRC has done all of the above, but from my research it appears to me the only thing to which the NRC has committed is keeping this issue from public scrutiny.

A 2E-4/year annual chance of a reactor accident leading to containment failure is something the NRC must address. "Acceptance sets the standard" and we cannot allow 2E-4/year to be the standard. Integrated over the 104 US Nuclear Power Plants (NPPs), 2E-4/year becomes 2.0E-2/year. That is a 2% annual chance that a core meltdown and containment breach will occur resulting in a significant release of radioactivity to the public (something that has not yet occurred in over fifty years of commercial nuclear power in the United States when one accounts for the fact that neither the 1966 core melt at Fermi plant nor the 1979 core melt at Three Mile Island involved a containment breach).

As means of comparison, a 2% annual chance is once in every 50 years. Integrated over the 439 operating commercial reactors worldwide, a 2E-4/year probability becomes an 8.3% chance which is once in every 12 years. If you count Fukushima as three separate accidents and add it to Chernobyl, then an accident every 12 years is about what we have experienced in the past fifty years.

Can our national nuclear enterprise accept a core meltdown and containment failure once every 12 years worldwide and once every 50 years in America? It cannot; consider the current decommissioning plans of Japan and Germany as evidence. Consider the post-Chernobyl shutdown orders in Italy. Consider the current state of new reactor construction in America, Britain, Canada and even France.

But even if we —as an agency — cannot accept 2E-4/year across the US industry, we — as a nation — certainly can accept that risk at <u>one</u> three-unit site in South Carolina. The issue I have, however, is that the actual Commissioners of the US NRC need to be the ones deciding whether or not we — as a nation — accept the risks which Jocassee Dam poses to our nuclear enterprise, and the Commissioners need to be transparently making that decision in front of the external stakeholders:

- 1. The applicable US congressional oversight committees
- The federal, state and local representatives of Oconee County, the neighboring counties and the neighboring states
- 3. The shareholders of Duke Energy and all nuclear utilities
- 4. The venders of reactor plants
- 5. The residents of Oconee County and the citizenry of the United States
- The international operators of nuclear reactors whom we expect to adequately mitigate risks to their plants and who thusly expect the same of us.

professional engineer and as a public servant I have a duty to the citizens of this country to address my concerns regarding the NRC's handling of the Jocassee Dam issue with the staffs of our congressional oversight committees. There are some who might say it is irresponsible to distribute "Security-Related Information". If there is really a security threat to Jocassee Dam then it needs to be actively addressed; merely withholding safety-related information from Congress and thereby impeding the handling of nuclear safety issues is not an acceptable way of addressing security threats.

Very respectfully,

Marine & Chinese

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Enclosure - 2 pages

Cc: Sen. Lindsey Graham, South Carolina

Sen. Jim DeMint, South Carolina

Sen. Joseph Lieberman, US Senate Comm. on Homeland Security & Governmental Affairs

Sen. Susan Collins, US Senate Committee on Homeland Security & Governmental Affairs

Sen. Barbara Boxer, US Senate Committee on Environment & Public Works

Sen, James Inhofe, US Senate Committee on Environment & Public Works

Rep. Jeff Duncan, South Carolina's 3rd District

Rep. Fred Upton, Energy & Commerce Committee

Rep. Henry Waxman, Energy & Commerce Committee

Rep. Peter King, Committee on Homeland Security

Rep. Bernie Thompson, Committee on Homeland Security

Rep. Darrel Issa, Committee on Oversight & Government Reform

Rep. Elijah Cummings, Committee on Oversight and Government Reform

Carolyn Lerner, US Office of Special Counsel

Hubert Bell, Nuclear Regulatory Commission Inspector General

Marian Zobler, Nuclear Regulatory Commission General Counsel

James Wiggins, NRC Office of Nuclear Security and Incident Response

This reducted version of this document is publicly available on the internet.

(b)(4)	
(b)(4)	Duke 2008, att 2, p.10).

In the Oconee Nuclear Station IPEEE submittal (ONS 1995, p.5.27), the licensee estimates that the conditional core damage frequency resulting from flooding due to failure of the Jocassee Dam is 7.0(10<sup>-6</sup>)/year (ONS 1995, p. 5-27). The contribution to core damage frequency from precipitation-induced external flooding is considered negligible (ONS 1995, p. 5-18). The licensee notes that this external flood core-damage frequency is of the same magnitude as other severe accident events (e.g., earthquakes, fires). Consequently, in the IPEEE, the licensee concluded that external flooding does not pose severe accident vulnerability (ONS 1995, p. 5-27).

The aforementioned estimate of conditional core-damage frequency is based on an estimate (made by the licensee) that the probability of a random failure of Jocassee Dam is  $1.3(10^{-5})/\text{year}$  (ONS 1995, p. 5-21). This failure rate includes failures due to seepage, embankment slides, and structural failure of the foundation or abutments. It does not include failures due to earthquakes (not deemed credible) or overtopping (ONS 1995, p.5-21). (b)(7)(F)

(b)(7)(F) (USNRC 2010c).

This NRC estimate is an order of magnitude larger than the estimate reported in the Oconee Nuclear Station IPEEE submittal. The database used by NRC staff to calculate the estimated failure rate includes failures due to overtopping, internal crosion, and settlement. Due to a lack of earthquake-induced failures affecting dams with characteristics similar to Jocassee Dam, the database does not contain failures due to seismic events.

As illustrated above, several uncertainties exist with regard to the risk posed to Oconee Nuclear Station due to upstream dam failure. In particular, uncertainty exists about the flood levels at the site that would result from failure of Jocassee Dam. Moreover, hazard due to external flooding was "screened out" in the IPEEE based on a sufficiently small contribution to core damage frequency as calculated at the time. However, uncertainty exists about the appropriate probability of dam failure that should be used in computing the contribution of external flooding to core damage frequency. This is illustrated by the disparate results of the separate analyses described above that differ by an order of magnitude in estimating the probability of failure of Jocassee Dam.

## 2.3. Applicability of Proposed Generic Issue to Multiple Plants

It is notable that an exclusive review of FSAR and IPEEE submittals would not necessarily indicate a potential problem due to external fluoding hazard in either of the above-described cases (i.e., Fort Calhoun Station or Oconee Nuclear Station). Problems at Fort Calhoun Station were recognized because of an NRC inspection that identified an apparent violation of Technical Specification 5.8.1.a for failure to maintain adequate procedures to protect the plant during external flooding events (USNRC 2010b). At Oconee Nuclear Station, attention was drawn to the elevated consequence from external flooding after staff identified a performance deficiency during maintenance activities that involved the installation of temporary electrical cables through an opening in the flood protection wall (USNRC 2006b, p. 1). This performance deficiency was of particular concern when coupled with flooding estimates that are significantly higher than previously assumed (USNRC 2006a). Thus, in these two cases, identification of flood-related issues resulted from particular scrutiny and analysis of flood

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The above timeline assumes that Oconee Nuclear Station is notified at the same time the dam fails. The licensee considers this assumption to be conservative because the plant expects notification before the dam fails (the dam is monitored 24 hours a day, 7 days a week). The licensee notes that the above timeline does not account for the recession of floodwaters, which is postulated to occur 10 hours following dam failure (5 hours following onset of flooding at the site) (Duke 2008, att 2, p.10).

In the Oconee Nuclear Station IPEEE submittal (ONS 1995, p.5.27), the licensee estimates that the conditional core damage frequency resulting from flooding due to failure of the Jocassee Dam is 7.0(10<sup>-6</sup>)/year (ONS 1995, p. 5-27). The contribution to core damage frequency from precipitation-induced external flooding is considered negligible (ONS 1995, p. 5-18). The licensee notes that this external flood core-damage frequency is of the same magnitude as other severe accident events (e.g., earthquakes, fires). Consequently, in the IPEEE, the licensee concluded that external flooding does not pose severe accident vulnerability (ONS 1995, p. 5-27).

The aforementioned estimate of conditional core-damage frequency is based on an estimate (made by the licensee) that the probability of a random failure of Jocassee Dam is  $1.3(10^{-5})/\text{year}$  (ONS 1995, p. 5-21). This failure rate includes failures due to seepage, embankment slides, and structural failure of the foundation or abutments. It does not include failures due to earthquakes or overtopping (ONS 1995, p.5-21). In 2010, NRC staff produced a report that estimates a typical dam failure rate for large rock fill dams similar to the Jocassee Dam to be  $2.8(10^{-4})/\text{year}$  (USNRC 2010c). This NRC estimate is an order of magnitude larger than the estimate reported in the Oconee Nuclear Station IPEEE submittal. The database used by NRC staff to calculate the estimated failure rate includes failures due to overtopping, internal erosion, and settlement. Due to a lack of earthquake-induced failures affecting dams with characteristics similar to Jocassee Dam, the database does not contain failures due to seismic events.

As illustrated above, several uncertainties exist with regard to the risk posed to Oconee Nuclear Station due to upstream dam failure. In particular, uncertainty exists about the flood levels at the site that would result from failure of Jocassee Dam. Moreover, hazard due to external flooding was "screened out" in the IPEEE based on a sufficiently small contribution to core damage frequency as calculated at the time. However, uncertainty exists about the appropriate probability of dam failure that should be used in computing the contribution of external flooding to core damage frequency. This is illustrated by the disparate results of the separate analyses described above that differ by an order of magnitude in estimating the probability of failure of Jocassee Dam.

## 2.3. Applicability of Proposed Generic Issue to Multiple Plants

It is notable that an exclusive review of FSAR and IPEEE submittals would not necessarily indicate a potential problem due to external flooding hazard in either of the above-described cases (i.e., Fort Calhoun Station or Oconee Nuclear Station). Problems at Fort Calhoun Station were recognized because of an NRC inspection that identified an apparent violation of Technical Specification 5.8.1.a for failure to maintain adequate procedures to protect the plant during external flooding events (USNRC 2010b). At Oconee Nuclear Station, attention was drawn to the elevated consequence from external flooding after staff identified a performance deficiency during maintenance activities that involved the installation of temporary electrical cables through an opening in the flood protection wall (USNRC 2006b, p. 1). This performance deficiency was of particular concern when coupled with flooding estimates that are significantly higher than previously assumed (USNRC 2006a). Thus, in these two cases, identification of flood-related issues resulted from particular scrutiny and analysis of flood