

---

**From:** Averbach, Andrew  
**Sent:** Thursday, September 05, 2019 1:41 PM  
**To:** Maltese, James  
**Cc:** Spencer, Mary; Harris, Brian  
**Subject:** (b)(5)  
**Attachments:** Document2.docx

7-page attachment  
is being withheld in  
its entirety under  
FOIA exemption  
5/Attorney Work  
Product

Jim/Mary/Brian:

(b)(5)

Thanks,  
Andrew

---

**From:** Averbach, Andrew  
**Sent:** Tuesday, September 03, 2019 2:38 PM  
**To:** Doell, Marlayna; Spencer, Mary; Harris, Brian  
**Cc:** Benowitz, Howard  
**Subject:** RE: (b)(5)

(b)(5)

Andrew

Andrew P. Averbach  
Solicitor  
U.S. Nuclear Regulatory Commission  
(301) 415-1956  
[andrew.averbach@nrc.gov](mailto:andrew.averbach@nrc.gov)

**From:** Doell, Marlayna  
**Sent:** Tuesday, September 03, 2019 2:36 PM  
**To:** Averbach, Andrew <[Andrew.Averbach@nrc.gov](mailto:Andrew.Averbach@nrc.gov)>; Spencer, Mary <[Mary.Spencer@nrc.gov](mailto:Mary.Spencer@nrc.gov)>; Harris, Brian <[Brian.Harris@nrc.gov](mailto:Brian.Harris@nrc.gov)>  
**Cc:** Benowitz, Howard <[Howard.Benowitz@nrc.gov](mailto:Howard.Benowitz@nrc.gov)>  
**Subject:** RE: (b)(5)

Hi all!

(b)(5)

THANKS!  
Marlayna  
415.3178

**From:** Averbach, Andrew  
**Sent:** Tuesday, September 03, 2019 11:29 AM  
**To:** Spencer, Mary <[Mary.Spencer@nrc.gov](mailto:Mary.Spencer@nrc.gov)>; Doell, Marlayna <[marlayna.doell@nrc.gov](mailto:marlayna.doell@nrc.gov)>; Harris, Brian <[Brian.Harris@nrc.gov](mailto:Brian.Harris@nrc.gov)>  
**Cc:** Benowitz, Howard <[Howard.Benowitz@nrc.gov](mailto:Howard.Benowitz@nrc.gov)>  
**Subject:** RE: (b)(5)

I am happy to talk today/tomorrow/Thursday anytime. I am travelling Friday and Monday, so sooner better than later.



Andrew

**From:** Spencer, Mary  
**Sent:** Tuesday, September 03, 2019 11:27 AM  
**To:** Doell, Marlayna <marlayna.doell@nrc.gov>; Harris, Brian <Brian.Harris@nrc.gov>  
**Cc:** Averhach, Andrew <Andrew.Averbach@nrc.gov>; Benowitz, Howard <Howard.Benowitz@nrc.gov>  
**Subject:** RE: (b)(5)

Marlayna,

(b)(5)

Thanks  
Mary

**From:** Doell, Marlayna  
**Sent:** Tuesday, September 03, 2019 9:01 AM  
**To:** Harris, Brian <Brian.Harris@nrc.gov>; Spencer, Mary <Mary.Spencer@nrc.gov>  
**Subject:** (b)(5)  
**Importance:** High

Good morning Mary and Brian,

(b)(5)

THANK YOU in advance as always and have a great day!

Marlayna  
415.3178

Marlayna Vaaler Doell

~~~~~  
Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP/RDB

Phone: 301.415.3178  
Mobile: (b)(6)  
E-mail: [marlayna.doell@nrc.gov](mailto:marlayna.doell@nrc.gov)  
Office Location: T-5A64  
Mail Stop: T-5A10

---

**From:** Clark, Michael  
**Sent:** Thursday, May 30, 2019 9:58 AM  
**To:** Campbell, Tison; Roth (OGC), David; Bielecki, Jessica; Maltese, James; Spencer, Mary; Harris, Brian; Moulding, Patrick; Lemoncelli, Mauri  
**Cc:** Ammon, Bernice; Clark, Brooke; Safford, Carrie; Vrahoretis, Susan; Martin, Jody  
**Subject:** FW: (b)(5)  
**Attachments:** (b)(5)  
**Importance:** High

4-page attachment is being withheld in its entirety under FOIA exemption 5

(b)(5)

Mike

**From:** Rihm, Roger  
**Sent:** Thursday, May 30, 2019 7:35 AM  
**To:** Clark, Michael <Michael.Clark@nrc.gov>  
**Cc:** Safford, Carrie <Carrie.Safford@nrc.gov>  
**Subject:** (b)(5)  
**Importance:** High

(b)(5)

(b)(5)

Thanks!

**Roger S. Rihm**  
Office of the Executive Director for Operations  
US Nuclear Regulatory Commission  
301.415.1717  
[roger.rihm@nrc.gov](mailto:roger.rihm@nrc.gov)

---

**From:** Roth (OGC), David  
**Sent:** Tuesday, April 30, 2019 5:04 PM  
**To:** Clark, Michael; Campbell, Tison; Bielecki, Jessica; Maltese, James; Spencer, Mary; Harris, Brian  
**Subject:** RE: ACTION: (b)(5)

Good afternoon,

(b)(5)

David E. Roth  
Deputy Assistant General Counsel  
for Operating Reactors  
Office O15-C08  
Mail Stop O14-A44  
Telephone Number: (301) 287-9121

~~Official Use Only - Attorney-Client Privilege / Attorney Work Product~~

**From:** Clark, Michael  
**Sent:** Tuesday, April 30, 2019 9:50 AM  
**To:** Campbell, Tison <Tison.Campbell@nrc.gov>; Roth (OGC), David <David.Roth@nrc.gov>; Bielecki, Jessica

<Jessica.Bielecki@nrc.gov>; Maltese, James <James.Maltese@nrc.gov>; Spencer, Mary <Mary.Spencer@nrc.gov>; Harris, Brian <Brian.Harris@nrc.gov>

**Subject:** FW: ACTION: (b)(5)

**Importance:** High

(b)(5)

Thanks,

Mike

**From:** Rihm, Roger

**Sent:** Tuesday, April 30, 2019 9:13 AM

**To:** Clark, Michael <Michael.Clark@nrc.gov>; Moreno, Angel <Angel.Moreno@nrc.gov>

**Subject:** ACTION: (b)(5)

**Importance:** High

(b)(5)

Thank you!

**Roger S. Rihm**

Office of the Executive Director for Operations

US Nuclear Regulatory Commission

301.415.1717

[roger.rihm@nrc.gov](mailto:roger.rihm@nrc.gov)

---

**From:** Spencer, Mary  
**Sent:** Tuesday, April 30, 2019 12:18 PM  
**To:** Clark, Michael  
**Cc:** Harris, Brian; Benowitz, Howard; Bielecki, Jessica  
**Subject:** FW: ACTION: (b)(5)  
**Attachments:** (b)(5)

3-page attachment  
is being withheld in  
its entirety under  
FOIA exemption 5

Mike,

(b)(5)

Thanks  
Mary

**From:** Benowitz, Howard  
**Sent:** Tuesday, April 30, 2019 12:13 PM  
**To:** Spencer, Mary <Mary.Spencer@nrc.gov>  
**Cc:** Harris, Brian <Brian.Harris@nrc.gov>  
**Subject:** RE: ACTION: (b)(5)

(b)(5)

**From:** Spencer, Mary  
**Sent:** Tuesday, April 30, 2019 10:55 AM  
**To:** Benowitz, Howard <Howard.Benowitz@nrc.gov>  
**Cc:** Harris, Brian <Brian.Harris@nrc.gov>  
**Subject:** FW: ACTION: (b)(5)  
**Importance:** High

(b)(5)

**From:** Clark, Michael  
**Sent:** Tuesday, April 30, 2019 9:50 AM  
**To:** Campbell, Tison <Tison.Campbell@nrc.gov>; Roth (OGC), David <David.Roth@nrc.gov>; Bielecki, Jessica <Jessica.Bielecki@nrc.gov>; Maltese, James <James.Maltese@nrc.gov>; Spencer, Mary <Mary.Spencer@nrc.gov>; Harris, Brian <Brian.Harris@nrc.gov>  
**Subject:** FW: ACTION: (b)(5)  
**Importance:** High

(b)(5)

Thanks,

Mike

**From:** Rihm, Roger

**Sent:** Tuesday, April 30, 2019 9:13 AM

**To:** Clark, Michael <Michael.Clark@nrc.gov>; Moreno, Angel <Angel.Moreno@nrc.gov>

**Subject:** ACTION (b)(5)

**Importance:** High

(b)(5)

Thank you!

**Roger S. Rihm**

Office of the Executive Director for Operations

US Nuclear Regulatory Commission

301.415.1717

[roger.rihm@nrc.gov](mailto:roger.rihm@nrc.gov)



---

**From:** Roth (OGC), David  
**Sent:** Friday, April 19, 2019 3:11 PM  
**To:** Ammon, Bernice; Spencer, Mary; Harris, Brian; Campbell, Tison  
**Cc:** Clark, Michael  
**Subject:** RE: (b)(5)  
**Attachments:** (b)(5)

2-page attachment is being withheld in its entirety under FOIA exemption 5

Good afternoon,

(b)(5)

David E. Roth  
Deputy Assistant General Counsel  
for Operating Reactors  
Office O15-C08  
Mail Stop O14-A44  
Telephone Number: (301) 287-9121

~~Official Use Only - Attorney-Client Privilege / Attorney Work Product~~

**From:** Ammon, Bernice  
**Sent:** Friday, April 19, 2019 2:12 PM  
**To:** Spencer, Mary <Mary.Spencer@nrc.gov>; Harris, Brian <Brian.Harris@nrc.gov>; Campbell, Tison <Tison.Campbell@nrc.gov>; Roth (OGC), David <David.Roth@nrc.gov>  
**Cc:** Clark, Michael <Michael.Clark@nrc.gov>  
**Subject:** FW: (b)(5)  
**Importance:** High

(b)(5)

Thank you,  
Bernice

Bernice C. Ammon  
Assistant General Counsel,  
Legal Counsel, Legislation, and Special Projects  
Alternate Designated Agency Ethics Official  
U.S. Nuclear Regulatory Commission  
301-287-9171



**From:** Rihm, Roger  
**Sent:** Friday, April 19, 2019 1:56 PM  
**To:** Ammon, Bernice <Bernice.Ammon@nrc.gov>  
**Cc:** Clark, Michael <Michael.Clark@nrc.gov>  
**Subject:** (b)(5)  
**Importance:** High

**Roger S. Rihm**  
Office of the Executive Director for Operations  
US Nuclear Regulatory Commission  
301.415.1717  
[roger.rihm@nrc.gov](mailto:roger.rihm@nrc.gov)

---

---

**From:** Campbell, Tison  
**Sent:** Saturday, August 04, 2018 1:08 PM  
**To:** Clark, Brooke; Spencer, Mary  
**Cc:** Silvia, Andrea; Averbach, Andrew; Pessin, Andrew  
**Subject:** FW: (b)(5)  
**Attachments:** (b)(5)

(b)(5)

**From:** Pessin, Andrew  
**Sent:** Friday, August 03, 2018 5:28 PM  
**To:** Campbell, Tison <Tison.Campbell@nrc.gov>  
**Subject:** FW: (b)(5)

Tison,

(b)(5)

Andy

~~Official Use Only - Attorney-Client Privilege/Attorney Work Product~~

**From:** Vaaler, Marlayna  
**Sent:** Friday, August 03, 2018 5:25 PM  
**To:** Pessin, Andrew <Andrew.Pessin@nrc.gov>  
**Subject:** RE: (b)(5)

Hi Andy!

(b)(5)

Please let me know if you have any questions or need anything additional and have a great weekend!  
Marlayna  
415.3178

**From:** Pessin, Andrew  
**Sent:** Friday, August 03, 2018 4:27 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** (b)(5)  
**Importance:** High

Marlayna,

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT DISTRIBUTE  
OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Monday, July 30, 2018 6:06 PM  
**To:** OGCMailCenter Resource <OGCMailCenter.Resource@nrc.gov>  
**Subject:** REQUEST FOR REVIEW/NLO: (b)(5)

Good afternoon!

(b)(5)

Thank you for the assistance as always, and please let me know if you have any questions or need anything additional!

Marlayna  
415.3178

Marlayna Vaaler

Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP/RDB

Phone: 301.415.3178

**From:** Pessin, Andrew  
**Sent:** Fri, 3 Aug 2018 22:21:25 +0000  
**To:** Averbach, Andrew  
**Cc:** Campbell, Tison;Silvia, Andrea;Benowitz, Howard

**Subject:** (b)(5)

**Attachments:** (b)(5)

(b)(5)

**Importance:** High

The 2 attachments, totaling 15 pages, are being withheld in its entirety under FOIA exemption 5

Hi Andrew,

(b)(5)

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Monday, July 30, 2018 6:06 PM  
**To:** OGCMailCenter Resource <[OGCMailCenter.Resource@nrc.gov](mailto:OGCMailCenter.Resource@nrc.gov)>  
**Subject:** REQUEST FOR REVIEW/NLO: (b)(5)

Good afternoon!

(b)(5)

Marlayna  
415.3178

~~~~~

Phone: 301.415.3178

Mobile: (b)(6)

E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)

Office Location: T-5A64

Mail Stop: T-5A10

---

**From:** Coggins, Angela  
**Sent:** Tuesday, April 16, 2019 5:37 PM  
**To:** Ammon, Bernice; Clark, Michael  
**Cc:** Bielecki, Jessica; Maltese, James; Jehle, Patricia  
**Subject:** (b)(5)  
**Attachments:** (b)(5).docx

5-page attachment is being withheld in its entirety under FOIA exemption 5

Hi Bernice! (b)(5)  
(b)(5)

Thanks!  
Angela

Angela Coggins  
Senior Attorney  
Office of the General Counsel  
High Level Waste, Fuel Cycle, & Nuclear Security  
U.S. Nuclear Regulatory Commission  
[angela.coggins@nrc.gov](mailto:angela.coggins@nrc.gov)

(b)(6)

~~This e-mail and any attachments may contain confidential Attorney-Client or Attorney Work-Product material. Do not disclose outside the NRC without OGC approval.~~



**From:** Pessin, Andrew  
**Sent:** Wed, 29 Aug 2018 23:07:05 +0000  
**To:** Campbell, Tison  
**Subject:** FW: (b)(5)  
**Attachments:** (b)(5)  
(b)(5)  
**Importance:** High

14-page attachment is  
being withheld in its  
entirety under FOIA  
exemption 5

Tison,

(b)(5)

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 29, 2018 7:02 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** FW: (b)(5)  
**Importance:** High

Marlayna,

(b)(5)

Thank you,

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 29, 2018 6:27 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Cc:** Clark, Brooke <Brooke.Clark@nrc.gov>; Averbach, Andrew <Andrew.Averbach@nrc.gov>; Campbell, Tison <Tison.Campbell@nrc.gov>; Silvia, Andrea <Andrea.Silvia@nrc.gov>; Maltese, James <James.Maltese@nrc.gov>  
**Subject:** (b)(5)  
**Importance:** High

Hi Marlayna,

(b)(5)

(b)(5)

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Monday, July 30, 2018 6:06 PM  
**To:** OGCMailCenter Resource <[OGCMailCenter.Resource@nrc.gov](mailto:OGCMailCenter.Resource@nrc.gov)>  
**Subject:** REQUEST FOR REVIEW/NLO: (b)(5)

Good afternoon!

(b)(5)

Thank you for the assistance as always, and please let me know if you have any questions or need anything additional!  
Marlayna

415.3178

**Marlayna Vaaler**

~~~~~  
Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP//RDB

Phone: 301.415.3178

Mobile: (b)(6)

E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)

Office Location: T-5A64

Mail Stop: T-5A10

**From:** Pessin, Andrew  
**Sent:** Wed, 22 Aug 2018 21:01:56 +0000  
**To:** Clark, Brooke  
**Cc:** Averbach, Andrew;Campbell, Tison;Silvia, Andrea;Safford, Carrie;Maltese, James  
**Subject:** FW: (b)(5)  
**Attachments:** (b)(5)  
(b)(5)  
**Importance:** High

First attachment same as on email dated August 3, 2018. Second attachment, totalling 15 pages, is being withheld in its entirety under FOIA exemption 5

Hi Brooke,

(b)(5)

If you have any questions or concerns, please let me know.

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 22, 2018 4:09 PM  
**To:** Averbach, Andrew <Andrew.Averbach@nrc.gov>  
**Cc:** Campbell, Tison <Tison.Campbell@nrc.gov>; Silvia, Andrea <Andrea.Silvia@nrc.gov>  
**Subject:** FW: (b)(5)  
**Importance:** High

Hi Andrew,

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Pessin, Andrew  
**Sent:** Friday, August 03, 2018 6:21 PM  
**To:** Averbach, Andrew <Andrew.Averbach@nrc.gov>  
**Cc:** Campbell, Tison <Tison.Campbell@nrc.gov>; Silvia, Andrea <Andrea.Silvia@nrc.gov>; Benowitz,  
Howard <Howard.Benowitz@nrc.gov>  
**Subject:** (b)(5)  
**Importance:** High

Hi Andrew,

(b)(5)

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Monday, July 30, 2018 6:06 PM  
**To:** OGCMailCenter Resource <[OGCMailCenter.Resource@nrc.gov](mailto:OGCMailCenter.Resource@nrc.gov)>  
**Subject:** REQUEST FOR REVIEW/NLO: (b)(5)

Good afternoon!

(b)(5)

Thank you for the assistance as always, and please let me know if you have any questions or need anything additional!

Marlayna  
415.3178

**Marlayna Vaaler**

~~~~~  
Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission



NMSS/DUWP//RDB

Phone: 301.415.3178

Mobile: (b)(6)

E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)

Office Location: T-5A64

Mail Stop: T-5A10

**From:** Pessin, Andrew  
**Sent:** Wed, 5 Sep 2018 20:05:54 +0000  
**To:** Clark, Brooke;Averbach, Andrew  
**Cc:** Campbell, Tison;Silvia, Andrea;Maltese, James

**Subject:** FW: (b)(5)

**Attachments:** (b)(5)

(b)(5)

14-page attachment is  
being withheld in its entirety  
under FOIA exemption 5

Brooke, Andrew,

FYI (b)(5)

(b)(5)

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Wednesday, September 05, 2018 3:59 PM  
**To:** Pessin, Andrew <Andrew.Pessin@nrc.gov>  
**Subject:** RE: (b)(5)

(b)(5)

Thanks again for all the help and please let me know if you have any questions or need anything additional!

Cheers,  
Marlayna  
415.3178

**From:** Pessin, Andrew  
**Sent:** Wednesday, September 05, 2018 12:24 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** RE: (b)(5)

Marlayna,

Excellent! I'm glad you were able to open it. (b)(5)

You have a great week too!

Thank you,

Andy

---

**From:** Vaaler, Marlayna  
**Sent:** Wednesday, September 05, 2018 12:21 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** RE: (b)(5)

Yep I was! Hopefully whatever the weekend issue was is resolved.. (b)(5)  
letter today ☺

THANK YOU again and enjoy the rest of your week!  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, September 05, 2018 11:34 AM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** RE: (b)(5)

Marlayna,

You're very welcome. Were you able to open it on your workstation?

Andy

---

**From:** Vaaler, Marlayna  
**Sent:** Tuesday, September 04, 2018 5:58 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** Re: (b)(5)

Thanks so much Andy...and hooray it opened (at least on my phone) so hopefully the earlier issues are fixed.

Cheers,  
Marlayna  
415.3178

---

On: 04 September 2018 17:52,  
"Pessin, Andrew" <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)> wrote:

Hi Marlayna,

(b)(5)

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*

---

**From:** Vaaler, Marlayna  
**Sent:** Tuesday, September 04, 2018 12:11 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** RE: (b)(5)

Here you go...I had the same problem with all my work documents this weekend ☹

Give me a shout if you have any questions and have a great afternoon,  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Tuesday, September 04, 2018 12:09 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** RE: (b)(5)

Hi Marlayna,

I could not open either document. Would you be able to resend them from your work computer?

(b)(5)

If you need to call me, I'm teleworking and can be reached at (b)(6)

Thank you,

Andy

---

**From:** Vaaler, Marlayna  
**Sent:** Saturday, September 01, 2018 3:30 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** RE: (b)(5)

Hi Andy!

I hope that you are having a great weekend so far! (b)(5)

(b)(5)

Please let me know if you have any questions or need anything additional in the meantime and enjoy the rest of the weekend!

Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 29, 2018 7:02 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** FW: (b)(5)  
**Importance:** High

Marlayna,

(b)(5)

Thank you,

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~



---

**From:** Pessin, Andrew

**Sent:** Wednesday, August 29, 2018 6:27 PM

**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>

**Cc:** Clark, Brooke <[Brooke.Clark@nrc.gov](mailto:Brooke.Clark@nrc.gov)>; Averbach, Andrew <[Andrew.Averbach@nrc.gov](mailto:Andrew.Averbach@nrc.gov)>; Campbell, Tison <[Tison.Campbell@nrc.gov](mailto:Tison.Campbell@nrc.gov)>; Silvia, Andrea <[Andrea.Silvia@nrc.gov](mailto:Andrea.Silvia@nrc.gov)>; Maltese, James

<[James.Maltese@nrc.gov](mailto:James.Maltese@nrc.gov)>

**Subject:** (b)(5)

**Importance:** High

Hi Marlayna,

(b)(5)

Andy

Andrew S. Pessin

Senior Attorney

United States Nuclear Regulatory Commission

OGC/GCLR/RMR

(301) 287-9179

---

\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*

---

---

**From:** Vaaler, Marlayna

**Sent:** Monday, July 30, 2018 6:06 PM

**To:** OGCMailCenter Resource <[OGCMailCenter.Resource@nrc.gov](mailto:OGCMailCenter.Resource@nrc.gov)>

**Subject:** REQUEST FOR REVIEW/NLO: (b)(5)

Good afternoon!

(b)(5)

Thank you for the assistance as always, and please let me know if you have any questions or need anything additional!

Marlayna  
415.3178

**Marlayna Vaaler**

~~~~~  
Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP//RDB

Phone: 301.415.3178

Mobile: (b)(6)

E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)

Office Location: T-5A64

Mail Stop: T-5A10



**From:** Vaaler, Marlayna  
**Sent:** Tue, 21 Aug 2018 21:03:27 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: Decommissioning GEIS

Hi Andy!

(b)(5)



Hope that helps!  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Tuesday, August 21, 2018 4:54 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** Decommissioning GEIS

Hi Marlayna,

(b)(5)



Thank you,

Andy

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Pessin, Andrew  
**Sent:** Fri, 28 Sep 2018 23:13:03 +0000  
**To:** Silvia, Andrea  
**Subject:** RE: FOIA request related to Yucca Mountain Documents

**Attachments:** RE: (b)(5)

(b)(5)

(b)(5)

FW: RE GTCC disposal proposal by DOE at Waste Control Specialists site, RE: RE GTCC disposal proposal by DOE at Waste Control Specialists site

**Importance:** High

Hi Andrea,

(b)(5)

Thank you,

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~

Non-Responsive Record

Non-Responsive Record

Non-Responsive Record

3 attachments, totalling 45 pages, are being withheld in their entirety under FOIA exemption 5.

**From:** Pessin, Andrew  
**Sent:** Mon, 27 Aug 2018 18:51:52 +0000  
**To:** Averbach, Andrew; Maltese, James  
**Cc:** Clark, Brooke; Campbell, Tison; Silvia, Andrea  
**Subject:** RE: (b)(5)  
**Attachments:** (b)(5)

(b)(5)

Andrew, Jim,

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Averbach, Andrew  
**Sent:** Friday, August 24, 2018 11:09 AM  
**To:** Clark, Brooke <Brooke.Clark@nrc.gov>; Pessin, Andrew <Andrew.Pessin@nrc.gov>  
**Subject:** (b)(5)

(b)(5)

Andy –

(b)(5)

AA

**From:** Pessin, Andrew  
**Sent:** Wed, 22 Aug 2018 20:27:32 +0000  
**To:** Maltese, James  
**Subject:** FW: (b)(5)  
**Attachments:** (b)(5)  
(b)(5)  
**Importance:** High

Jim,

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 22, 2018 4:09 PM  
**To:** Averbach, Andrew <Andrew.Averbach@nrc.gov>  
**Cc:** Campbell, Tison <Tison.Campbell@nrc.gov>; Silvia, Andrea <Andrea.Silvia@nrc.gov>  
**Subject:** FW: (b)(5)  
**Importance:** High

Hi Andrew,

(b)(5)



(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Pessin, Andrew

**Sent:** Friday, August 03, 2018 6:21 PM

**To:** Averbach, Andrew <[Andrew.Averbach@nrc.gov](mailto:Andrew.Averbach@nrc.gov)>

**Cc:** Campbell, Tison <[Tison.Campbell@nrc.gov](mailto:Tison.Campbell@nrc.gov)>; Silvia, Andrea <[Andrea.Silvia@nrc.gov](mailto:Andrea.Silvia@nrc.gov)>; Benowitz,  
Howard <[Howard.Benowitz@nrc.gov](mailto:Howard.Benowitz@nrc.gov)>

**Subject:** (b)(5)

**Importance:** High

Hi Andrew,

(b)(5)

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna

**Sent:** Monday, July 30, 2018 6:06 PM

**To:** OGCMailCenter Resource <[OGCMailCenter.Resource@nrc.gov](mailto:OGCMailCenter.Resource@nrc.gov)>

**Subject:** (b)(5)

Good afternoon!

(b)(5)

Thank you for the assistance as always, and please let me know if you have any questions or need anything additional!

Marlayna  
415.3178

**Marlayna Vaaler**

Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP//RDB

Phone: 301.415.3178

Mobile: (b)(6)

E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)

Office Location: T-5A64

Mail Stop: T-5A10











































**From:** Pessin, Andrew  
**Sent:** Fri, 24 Aug 2018 15:53:16 +0000  
**To:** Doell, Marlayna  
**Subject:** RE: (b)(5)

Marlayna,

Thank you. I'll let you know if I have any further questions.

(b)(5)

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Friday, August 24, 2018 11:38 AM  
**To:** Pessin, Andrew <Andrew.Pessin@nrc.gov>  
**Subject:** (b)(5)

Hi Andy!

(b)(5)

(b)(5)

Marlayna  
415.3178

---

**From:** Vaaler, Marlayna  
**Sent:** Tuesday, August 21, 2018 12:47 PM  
**To:** Records Resource <[Records.Resource@nrc.gov](mailto:Records.Resource@nrc.gov)>  
**Subject:** Request for Legacy Documents for SONGS  
**Importance:** High

Good afternoon!

(b)(5)

Thank you for the help as always and I hope that you are having a great day!  
Marlayna  
415.3178

**Marlayna Vaaler**

---

Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP/RDB

Phone: 301.415.3178

Mobile: (b)(6)

E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)

Office Location: T-5A64

Mail Stop: T-5A10

**From:** Vaaler, Marlayna  
**Sent:** Mon, 27 Aug 2018 16:10:31 +0000  
**To:** Pessin, Andrew  
**Subject:** Re: SCE PSDAR

Hi Andy!  
I'm out of the office for the afternoon so I can't send you the live link, but the SONGS PSDAR is available at ML14269A033.  
Good luck,  
Marlayna  
415.3178

---

On: 27 August 2018 11:52,  
"Pessin, Andrew" <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)> wrote:

Marlayna,

Please send me a link for the SCE PSDAR, submitted in September 2014.

Thank you,

Andy

**From:** Vaaler, Marlayna  
**Sent:** Fri, 24 Aug 2018 17:34:26 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: SONGS

There are two! Facility Operating License NPF-10 is for SONGS 2 and NPF-15 is for SONGS 3. They are more or less identical and I have copies of both electronically if you need them.

---

**From:** Pessin, Andrew  
**Sent:** Friday, August 24, 2018 1:32 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** SONGS

Marlayna,

Is there just one license covering both Units 2 and 3 or are there two licenses, one for each unit?

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

**From:** Vaaler, Marlayna  
**Sent:** Wed, 15 Aug 2018 20:56:03 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: SONGS

(b)(5)

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 15, 2018 4:55 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** RE: SONGS

Marlayna,

(b)(5)

Thank you,

Andy

---

**From:** Vaaler, Marlayna  
**Sent:** Wednesday, August 15, 2018 2:34 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** RE: SONGS

(b)(5)

Cheers,  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 15, 2018 2:26 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** RE: SONGS

Hi Marlayna,

(b)(5)

(b)(5)

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

---

**From:** Vaaler, Marlayna  
**Sent:** Wednesday, August 15, 2018 12:24 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** RE: SONGS

Hi Andy!

(b)(5)

Cheers,  
Marlayna  
415.3178



---

**From:** Pessin, Andrew  
**Sent:** Tuesday, August 14, 2018 5:40 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** RE: SONGS

Marlayna,

(b)(5)

Thank you,

Andy

---

**From:** Vaaler, Marlayna  
**Sent:** Tuesday, August 14, 2018 5:34 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** Re: SONGS

(b)(5)

Hope all is well!  
Marlayna  
415.3178

---

On: 13 August 2018 17:08,  
"Vaaler, Marlayna" <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)> wrote:

Hello again!

(b)(5)

Thanks,

Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 13, 2018 2:58 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** RE: SONGS

Hi Marlayna,

(b)(5)

Thank you,

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~

---

**From:** Vaaler, Marlayna  
**Sent:** Monday, August 13, 2018 2:56 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** RE: SONGS

Hi Andy!

(b)(5)

Hope that helps and THANK YOU again for your help with this!  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 13, 2018 2:52 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** FW: SONGS

Marlayna,

(b)(5)

Thank you,

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~

---

**From:** Pessin, Andrew

**Sent:** Monday, August 13, 2018 2:47 PM

**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>

**Subject:** SONGS

Hi Marlayna,

(b)(5)

Thank you,

Andy

Andrew S. Pessin

Senior Attorney

United States Nuclear Regulatory Commission

OGC/GCLR/RMR

(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY-CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Wed, 15 Aug 2018 16:23:34 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: SONGS  
**Attachments:** (b)(5)

1-page attachment is being withheld in its entirety under FOIA exemption 5

Hi Andy!

(b)(5)

Cheers,  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Tuesday, August 14, 2018 5:40 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** RE: SONGS

Marlayna,

(b)(5)

Thank you,

Andy

---

**From:** Vaaler, Marlayna  
**Sent:** Tuesday, August 14, 2018 5:34 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** Re: SONGS

(b)(5)

Hope all is well!  
Marlayna  
415.3178

---

On: 13 August 2018 17:08,  
"Vaaler, Marlayna" <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)> wrote:

Hello again!

(b)(5)

Thanks,  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 13, 2018 2:58 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** RE: SONGS

Hi Marlayna,

(b)(5)

Thank you,

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~

---

**From:** Vaaler, Marlayna  
**Sent:** Monday, August 13, 2018 2:56 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** RE: SONGS

Hi Andy!

(b)(5)

Hope that helps and THANK YOU again for your help with this!  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 13, 2018 2:52 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** FW: SONGS

Marlayna,

(b)(5)

Thank you,

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 13, 2018 2:47 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** SONGS

Hi Marlayna,

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY-CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~



**From:** Vaaler, Marlayna  
**Sent:** Mon, 13 Aug 2018 19:54:31 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: SONGS

Yep! IMC 2561 was just revised and is publicly available at ML17348A400. It does go through the timeliness requirements for inspections during different phases of decommissioning and all that good stuff...but probably just referencing it is the easiest!

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 13, 2018 3:52 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** FW: SONGS

Marlayna,

If it's covered in IMC 2561, then I think I'm good—I'll just refer to that. Is IMC 2561 publicly available?

Thank you,

Andy

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 13, 2018 3:41 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** SONGS

Hi Marlayna,

Would you happen to have a write-up or an excerpt from a larger document that describes the NRC's oversight and inspection of a decommissioning reactor? For example, the number of times per year (or per other time period) that the NRC will physically inspect the plant.

Thank you,

Andy



**From:** Vaaler, Marlayna  
**Sent:** Mon, 13 Aug 2018 19:52:11 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: SONGS

Hello again!

I stole the blurb below from the public website (I figured that would be easiest since the wording has already been okayed for public consumption!). It covers what types of activities we inspect during decommissioning, as well as the frequency of these inspections at DECON and SAFSTOR sites. Hopefully some of it will be what you are looking for?

The goals of the oversight program at nuclear plants undergoing decommissioning are to:

- determine, through direct observation and verification, if decommissioning activities are being conducted safely, if the spent nuclear fuel is being stored safely, and if activities at the site are being conducted in accordance with all applicable regulations and commitments;
- determine if the administrative controls that the licensee has in place are adequate and comply with regulatory requirements, (the controls include self-assessment, audits and corrective actions, design control, safety review, maintenance and surveillance, radiation protection, and effluent controls); and
- identify any significant declining performance trends and verify that the licensee has taken actions to reverse any trend.

The NRC oversees decommissioning of nuclear reactors through inspections that emphasize radiological controls, management, procedures compliance, spent fuel pool operations, and the safety review program. Many activities that occur during decommissioning are very routine and occur frequently in operating plants. These include decontamination of surfaces and components, surveys for radioactive contamination, waste packaging and disposal, and other activities. During active decommissioning periods, NRC inspectors may be at the facility 2 or 3 weeks of the month. During a long-term storage period, they would be present several times a year in accordance with the decommissioning reactor inspection program contained in Inspection Manual Chapter (IMC) 2561, "Decommissioning Power Reactor Inspection Program."

This is all from this link: <https://www.nrc.gov/waste/decommissioning/oversight.html#rea>

Hope that helps!  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 13, 2018 3:41 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** SONGS

Hi Marlayna,

Would you happen to have a write-up or an excerpt from a larger document that describes the NRC's oversight and inspection of a decommissioning reactor? For example, the number of times per year (or per other time period) that the NRC will physically inspect the plant.

Thank you,

Andy

**From:** Pessin, Andrew  
**Sent:** Tue, 21 Aug 2018 16:46:10 +0000  
**To:** Doell, Marlayna  
**Subject:** RE: SONGS 1981 EIS

Hi Marlayna,

Yes, please put in the request to place NUREG-0490 in regular ADAMS.

(b)(5)

(b)(5)

Thank you,

Andy

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

---

**From:** Vaaler, Marlayna  
**Sent:** Tuesday, August 21, 2018 12:39 PM  
**To:** Pessin, Andrew <Andrew.Pessin@nrc.gov>  
**Subject:** RE: SONGS 1981 EIS

Hi Andy!

Unfortunately I cannot find a copy of NUREG-0490 in ADAMS or online. I think I have a hard copy at my desk, but would have to check since I am at the PDC today. I was able to find the NUREG in Legacy ADAMS and can put in a request to have it added to regular ADAMS ASAP, unless you know of somewhere else we may keep these "original" EISs?

Thanks...and sorry!  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Tuesday, August 21, 2018 11:36 AM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** SONGS 1981 EIS

Hi Marlayna,

Please send me a link to the SONGS 1981 EIS.

Thank you,

Andy

**From:** Vaaler, Marlayna  
**Sent:** Wed, 29 Aug 2018 16:04:57 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: SONGS 1981 EIS

Perfect timing! I just got the new ML# back and it is: ML18239A414.

Cheers,  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 29, 2018 12:02 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** RE: SONGS 1981 EIS

Hi Marlayna,

Please send me the ML number for the 1981 EIS.

Thank you,

Andy

---

**From:** Vaaler, Marlayna  
**Sent:** Tuesday, August 21, 2018 12:39 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** RE: SONGS 1981 EIS

Hi Andy!

Unfortunately I cannot find a copy of NUREG-0490 in ADAMS or online. I think I have a hard copy at my desk, but would have to check since I am at the PDC today. I was able to find the NUREG in Legacy ADAMS and can put in a request to have it added to regular ADAMS ASAP, unless you know of somewhere else we may keep these "original" EISs?

Thanks...and sorry!  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Tuesday, August 21, 2018 11:36 AM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** SONGS 1981 EIS

Hi Marlayna,

Please send me a link to the SONGS 1981 EIS.

Thank you,

Andy

**From:** Vaaler, Marlayna  
**Sent:** Mon, 27 Aug 2018 15:25:40 +0000  
**To:** Pessin, Andrew  
**Subject:** Re: SONGS, (b)(5)

Hi Andy!  
I also hope you had a great weekend :-)

(b)(5)

(b)(5)

Hope that helps!  
Marlayna  
415.3178

On: 27 August 2018 11:07, "Pessin, Andrew" <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)> wrote:  
Hi Marlayna,

I hope you had a nice weekend.

(b)(5)

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission

OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~



**From:** Vaaler, Marlayna  
**Sent:** Thu, 23 Aug 2018 19:12:26 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: SONGS, (b)(5)

Hi Andy!

(b)(5)

Cheers,  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Thursday, August 23, 2018 3:07 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** SONGS, (b)(5)

Hi Marlayna,

(b)(5)

Thank you,

Andy

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Pessin, Andrew  
**Sent:** Tue, 28 Aug 2018 19:24:32 +0000  
**To:** Averbach, Andrew  
**Cc:** Clark, Brooke; Campbell, Tison; Silvia, Andrea; Maltese, James  
**Subject:** RE: (b)(5)

Andrew,

Thank you. (b)(5)

(b)(5)

(b)(5)

Please let me know if you want to discuss further. Thanks again for your support.

Andy

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Averbach, Andrew

**Sent:** Tuesday, August 28, 2018 9:07 AM

**To:** Pessin, Andrew <Andrew.Pessin@nrc.gov>; Maltese, James <James.Maltese@nrc.gov>

**Cc:** Clark, Brooke <Brooke.Clark@nrc.gov>; Campbell, Tison <Tison.Campbell@nrc.gov>; Silvia, Andrea <Andrea.Silvia@nrc.gov>

**Subject:** RE: (b)(5)

Andy,

(b)(5)

**From:** Pessin, Andrew

**Sent:** Monday, August 27, 2018 2:52 PM

**To:** Averbach, Andrew <[Andrew.Averbach@nrc.gov](mailto:Andrew.Averbach@nrc.gov)>; Maltese, James <[James.Maltese@nrc.gov](mailto:James.Maltese@nrc.gov)>

**Cc:** Clark, Brooke <[Brooke.Clark@nrc.gov](mailto:Brooke.Clark@nrc.gov)>; Campbell, Tison <[Tison.Campbell@nrc.gov](mailto:Tison.Campbell@nrc.gov)>; Silvia, Andrea <[Andrea.Silvia@nrc.gov](mailto:Andrea.Silvia@nrc.gov)>

**Subject:** RE: (b)(5)

Andrew, Jim,

(b)(5)

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Averbach, Andrew

**Sent:** Friday, August 24, 2018 11:09 AM

**To:** Clark, Brooke <[Brooke.Clark@nrc.gov](mailto:Brooke.Clark@nrc.gov)>; Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>

**Subject:** (b)(5)

(b)(5)

Andy –

(b)(5)

AA

**From:** Clark, Brooke  
**Sent:** Fri, 24 Aug 2018 19:11:15 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: (b)(5)  
(b)(5).docx

(b)(5)

Thanks!

---

**From:** Pessin, Andrew  
**Sent:** Friday, August 24, 2018 3:10 PM  
**To:** Clark, Brooke <Brooke.Clark@nrc.gov>  
**Subject:** RE: (b)(5)  
(b)(5)

Hi Brooke,

(b)(5)

Thank you,

Andy

---

**From:** Clark, Brooke  
**Sent:** Friday, August 24, 2018 2:58 PM  
**To:** Pessin, Andrew <Andrew.Pessin@nrc.gov>  
**Subject:** RE: (b)(5)  
(b)(5)

Hi Andy – I'm in today the rest of the afternoon but just got a scheduler for a meeting from 3:15 to 4:15. If 4:30 is not too late (or even 4:20), come by then? Or give a ring at 8705.

Thanks.

---

**From:** Pessin, Andrew  
**Sent:** Friday, August 24, 2018 1:31 PM  
**To:** Clark, Brooke <Brooke.Clark@nrc.gov>  
**Subject:** RE: (b)(5)  
(b)(5)

Brooke,

(b)(5)

Thank you,

Andy

---

**From:** Clark, Brooke

**Sent:** Friday, August 24, 2018 11:43 AM

**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>; Averbach, Andrew <[Andrew.Averbach@nrc.gov](mailto:Andrew.Averbach@nrc.gov)>

**Cc:** Campbell, Tison <[Tison.Campbell@nrc.gov](mailto:Tison.Campbell@nrc.gov)>; Silvia, Andrea <[Andrea.Silvia@nrc.gov](mailto:Andrea.Silvia@nrc.gov)>

**Subject:** RE: (b)(5)

(b)(5)

(b)(5)

Thanks, Andy.

Brooke

---

**From:** Pessin, Andrew

**Sent:** Friday, August 24, 2018 11:18 AM

**To:** Clark, Brooke <[Brooke.Clark@nrc.gov](mailto:Brooke.Clark@nrc.gov)>; Averbach, Andrew <[Andrew.Averbach@nrc.gov](mailto:Andrew.Averbach@nrc.gov)>

**Cc:** Campbell, Tison <[Tison.Campbell@nrc.gov](mailto:Tison.Campbell@nrc.gov)>; Silvia, Andrea <[Andrea.Silvia@nrc.gov](mailto:Andrea.Silvia@nrc.gov)>

**Subject:** RE: (b)(5)

(b)(5)

Brooke, Andrew,

Thank you, (b)(5)

(b)(5)

Andy

~~Official Use Only~~ - Attorney-Client Privilege/Attorney Work Product

---

**From:** Averbach, Andrew

**Sent:** Friday, August 24, 2018 11:09 AM

**To:** Clark, Brooke <[Brooke.Clark@nrc.gov](mailto:Brooke.Clark@nrc.gov)>; Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>

**Subject:** (b)(5)

(b)(5)

Andy –

(b)(5)

AA



**From:** Vaaler, Marlayna  
**Sent:** Tue, 4 Sep 2018 16:10:32 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: (b)(5)  
**Attachments:** (b)(5)  
(b)(5)

2 attachments,  
totalling 32  
pages, are being  
withheld in their  
entirety under  
FOIA exemption  
5

(b)(5)

Give me a shout if you have any questions and have a great afternoon,  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Tuesday, September 04, 2018 12:09 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** RE: (b)(5)

Hi Marlayna,

(b)(5)

If you need to call me, I'm teleworking and can be reached at (b)(6)

Thank you,

Andy

---

**From:** Vaaler, Marlayna  
**Sent:** Saturday, September 01, 2018 3:30 PM  
**To:** Pessin, Andrew <Andrew.Pessin@nrc.gov>  
**Subject:** RE: (b)(5)

Hi Andy!

I hope that you are having a great weekend so far! (b)(5)

(b)(5)

ach  
l  
r to



(b)(5)

Please let me know if you have any questions or need anything additional in the meantime and enjoy the rest of the weekend!

Marlayna  
415.3178

---

**From:** Pessin, Andrew

**Sent:** Wednesday, August 29, 2018 7:02 PM

**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>

**Subject:** FW: (b)(5)

**Importance:** High

Marlayna,

(b)(5)

Thank you,

Andy

~~Official Use Only--Attorney-Client Privilege/Attorney Work Product~~

---

**From:** Pessin, Andrew

**Sent:** Wednesday, August 29, 2018 6:27 PM

**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>

**Cc:** Clark, Brooke <[Brooke.Clark@nrc.gov](mailto:Brooke.Clark@nrc.gov)>; Averbach, Andrew <[Andrew.Averbach@nrc.gov](mailto:Andrew.Averbach@nrc.gov)>; Campbell, Tison <[Tison.Campbell@nrc.gov](mailto:Tison.Campbell@nrc.gov)>; Silvia, Andrea <[Andrea.Silvia@nrc.gov](mailto:Andrea.Silvia@nrc.gov)>; Maltese, James <[James.Maltese@nrc.gov](mailto:James.Maltese@nrc.gov)>

**Subject:** (b)(5)

**Importance:** High

Hi Marlayna,

(b)(5)

(b)(5)

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Monday, July 30, 2018 6:06 PM  
**To:** OGCMailCenter Resource <[OGCMailCenter.Resource@nrc.gov](mailto:OGCMailCenter.Resource@nrc.gov)>  
**Subject:** REQUEST FOR REVIEW/NLO: (b)(5)

Good afternoon!

(b)(5)

Thank you for the assistance as always, and please let me know if you have any questions or need anything additional!  
Marlayna  
415.3178

**Marlayna Vaaler**

~~~~~  
Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP//RDB

Phone: 301.415.3178

Mobile: (b)(6)

E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)

Office Location: T-5A64

Mail Stop: T-5A10

**From:** Vaaler, Marlayna  
**Sent:** Thu, 30 Aug 2018 14:54:00 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: (b)(5)

Thanks Andy, (b)(5)  
(b)(5)

Thanks again for all the hard work!  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 29, 2018 7:02 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** FW: (b)(5)  
**Importance:** High

Marlayna,

(b)(5)

Thank you,

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 29, 2018 6:27 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Cc:** Clark, Brooke <[Brooke.Clark@nrc.gov](mailto:Brooke.Clark@nrc.gov)>; Averbach, Andrew <[Andrew.Averbach@nrc.gov](mailto:Andrew.Averbach@nrc.gov)>; Campbell, Tison <[Tison.Campbell@nrc.gov](mailto:Tison.Campbell@nrc.gov)>; Silvia, Andrea <[Andrea.Silvia@nrc.gov](mailto:Andrea.Silvia@nrc.gov)>; Maltese, James <[James.Maltese@nrc.gov](mailto:James.Maltese@nrc.gov)>  
**Subject:** (b)(5)  
**Importance:** High

Hi Marlayna,

(b)(5)

(b)(5)

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY-CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Monday, July 30, 2018 6:06 PM  
**To:** OGCMailCenter Resource <[OGCMailCenter.Resource@nrc.gov](mailto:OGCMailCenter.Resource@nrc.gov)>  
**Subject:** REQUEST FOR REVIEW/NLO: (b)(5)

Good afternoon!

(b)(5)

Thank you for the assistance as always, and please let me know if you have any questions or need anything additional!

Marlayna  
415.3178

Marlayna Vaaler

~~~~~  
Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP//RDB

Phone: 301.415.3178

Mobile: (b)(6)

E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)

Office Location: T-5A64

Mail Stop: T-5A10

**From:** Maltese, James  
**Sent:** Thu, 23 Aug 2018 18:36:05 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: (b)(5)  
**Attachments:** (b)(5)  
August ....docx

15-page  
attachment is the  
same as the  
email dated  
August 27, 2018

Andy,

(b)(5)

Jim

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 22, 2018 4:28 PM  
**To:** Maltese, James <James.Maltese@nrc.gov>  
**Subject:** FW: (b)(5)  
**Importance:** High

Jim,

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

---

\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*

---

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 22, 2018 4:09 PM  
**To:** Averbach, Andrew <Andrew.Averbach@nrc.gov>  
**Cc:** Campbell, Tison <Tison.Campbell@nrc.gov>; Silvia, Andrea <Andrea.Silvia@nrc.gov>  
**Subject:** FW: (b)(5)  
**Importance:** High



Hi Andrew,

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

---

**From:** Pessin, Andrew  
**Sent:** Friday, August 03, 2018 6:21 PM  
**To:** Averbach, Andrew <[Andrew.Averbach@nrc.gov](mailto:Andrew.Averbach@nrc.gov)>  
**Cc:** Campbell, Tison <[Tison.Campbell@nrc.gov](mailto:Tison.Campbell@nrc.gov)>; Silvia, Andrea <[Andrea.Silvia@nrc.gov](mailto:Andrea.Silvia@nrc.gov)>; Benowitz, Howard <[Howard.Benowitz@nrc.gov](mailto:Howard.Benowitz@nrc.gov)>  
**Subject:** (b)(5)  
**Importance:** High

Hi Andrew,

(b)(5)



(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Monday, July 30, 2018 6:06 PM  
**To:** OGCMailCenter Resource <[OGCMailCenter.Resource@nrc.gov](mailto:OGCMailCenter.Resource@nrc.gov)>  
**Subject:** REQUEST FOR REVIEW/NLO: (b)(5)

Good afternoon!

(b)(5)

Thank you for the assistance as always, and please let me know if you have any questions or need anything additional!

Marlayna  
415.3178

**Marlayna Vaaler**

~~~~~  
Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP//RDB

Phone: 301.415.3178  
Mobile: (b)(6)  
E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)  
Office Location: T-5A64  
Mail Stop: T-5A10

**From:** Maltese, James  
**Sent:** Fri, 24 Aug 2018 15:54:11 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: (b)(5)

Andy,

(b)(5)

Jim

---

**From:** Pessin, Andrew  
**Sent:** Thursday, August 23, 2018 3:06 PM  
**To:** Maltese, James <[James.Maltese@nrc.gov](mailto:James.Maltese@nrc.gov)>  
**Subject:** RE: (b)(5)

Hi Jim,

(b)(5)

Please give me a call; I'm teleworking today and can be reached at (b)(6)

Andy

---

**From:** Maltese, James  
**Sent:** Thursday, August 23, 2018 2:36 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** RE: (b)(5)

Andy,

(b)(5)

Jim

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 22, 2018 4:28 PM  
**To:** Maltese, James <[James.Maltese@nrc.gov](mailto:James.Maltese@nrc.gov)>  
**Subject:** FW: (b)(5)  
**Importance:** High

Jim,

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY-CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Pessin, Andrew

**Sent:** Wednesday, August 22, 2018 4:09 PM

**To:** Averbach, Andrew <[Andrew.Averbach@nrc.gov](mailto:Andrew.Averbach@nrc.gov)>

**Cc:** Campbell, Tison <[Tison.Campbell@nrc.gov](mailto:Tison.Campbell@nrc.gov)>; Silvia, Andrea <[Andrea.Silvia@nrc.gov](mailto:Andrea.Silvia@nrc.gov)>

**Subject:** FW: (b)(5)

**Importance:** High

Hi Andrew,

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney

United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*

**From:** Pessin, Andrew

**Sent:** Friday, August 03, 2018 6:21 PM

**To:** Averbach, Andrew <[Andrew.Averbach@nrc.gov](mailto:Andrew.Averbach@nrc.gov)>

**Cc:** Campbell, Tison <[Tison.Campbell@nrc.gov](mailto:Tison.Campbell@nrc.gov)>; Silvia, Andrea <[Andrea.Silvia@nrc.gov](mailto:Andrea.Silvia@nrc.gov)>; Benowitz,  
Howard <[Howard.Benowitz@nrc.gov](mailto:Howard.Benowitz@nrc.gov)>

**Subject:** (b)(5)

**Importance:** High

Hi Andrew,

(b)(5)

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Monday, July 30, 2018 6:06 PM  
**To:** OGCMailCenter Resource <[OGCMailCenter.Resource@nrc.gov](mailto:OGCMailCenter.Resource@nrc.gov)>  
**Subject:** REQUEST FOR REVIEW/NLO: (b)(5)

Good afternoon!

(b)(5)

(b)(5)

Thank you for the assistance as always, and please let me know if you have any questions or need anything additional!

Marlayna  
415.3178

**Marlayna Vaaler**

~~~~~  
Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP//RDB

Phone: 301.415.3178

Mobile: (b)(6)

E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)

Office Location: T-5A64

Mail Stop: T-5A10



**From:** Pessin, Andrew  
**Sent:** Fri, 3 Aug 2018 21:27:28 +0000  
**To:** Doell, Marlayna  
**Subject:** RE: (b)(5)

Hi Marlayna,

(b)(5) You have a great weekend too!

Kind regards,

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~

---

**From:** Vaaler, Marlayna  
**Sent:** Friday, August 03, 2018 5:25 PM  
**To:** Pessin, Andrew <Andrew.Pessin@nrc.gov>  
**Subject:** RE: (b)(5)

Hi Andy!

(b)(5)

Please let me know if you have any questions or need anything additional and have a great weekend!  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Friday, August 03, 2018 4:27 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** (b)(5)  
**Importance:** High



(b)(5)

Andy

\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*

Good afternoon!

(b)(5)

Marlayna  
415.3178

Phone: 301.415.3178  
Mobile: (b)(6)

E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)

Office Location: T-5A64

Mail Stop: T-5A10

**From:** Pessin, Andrew  
**Sent:** Tue, 4 Sep 2018 21:52:16 +0000  
**To:** Doell, Marlayna  
**Subject:** RE: (b)(5)  
**Attachments:** (b)(5)  
4,, 2018.docx

15-page attachment is  
being withheld in its  
entirety under FOIA  
exemption 5

Hi Marlayna,

(b)(5)

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

---

**From:** Vaaler, Marlayna  
**Sent:** Tuesday, September 04, 2018 12:11 PM  
**To:** Pessin, Andrew <Andrew.Pessin@nrc.gov>  
**Subject:** RE: (b)(5)

(b)(5)

Give me a shout if you have any questions and have a great afternoon,  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Tuesday, September 04, 2018 12:09 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** RE: (b)(5)

Hi Marlayna,

(b)(5)

If you need to call me, I'm teleworking and can be reached at (b)(6)

Thank you,

Andy

---

**From:** Vaaler, Marlayna

**Sent:** Saturday, September 01, 2018 3:30 PM

**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>

**Subject:** RE: (b)(5)

Hi Andy!

I hope that you are having a great weekend so far! (b)(5)

(b)(5)

Please let me know if you have any questions or need anything additional in the meantime and enjoy the rest of the weekend!

Marlayna  
415.3178

---

**From:** Pessin, Andrew

**Sent:** Wednesday, August 29, 2018 7:02 PM

**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>

**Subject:** FW: (b)(5)

**Importance:** High

Marlayna,

(b)(5)

Thank you,

Andy

~~Official Use Only--Attorney-Client Privilege/Attorney Work Product~~

---

**From:** Pessin, Andrew

**Sent:** Wednesday, August 29, 2018 6:27 PM

**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>

**Cc:** Clark, Brooke <[Brooke.Clark@nrc.gov](mailto:Brooke.Clark@nrc.gov)>; Averbach, Andrew <[Andrew.Averbach@nrc.gov](mailto:Andrew.Averbach@nrc.gov)>; Campbell, Tison <[Tison.Campbell@nrc.gov](mailto:Tison.Campbell@nrc.gov)>; Silvia, Andrea <[Andrea.Silvia@nrc.gov](mailto:Andrea.Silvia@nrc.gov)>; Maltese, James <[James.Maltese@nrc.gov](mailto:James.Maltese@nrc.gov)>

**Subject:** (b)(5)

**Importance:** High

Hi Marlayna,

(b)(5)

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

---

\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*

---

**From:** Vaaler, Marlayna  
**Sent:** Monday, July 30, 2018 6:06 PM  
**To:** OGCMailCenter Resource <[OGCMailCenter.Resource@nrc.gov](mailto:OGCMailCenter.Resource@nrc.gov)>  
**Subject:** REQUEST FOR REVIEW/NLO: (b)(5)

Good afternoon!

(b)(5)

Thank you for the assistance as always, and please let me know if you have any questions or need anything additional!

Marlayna  
415.3178

**Marlayna Vaaler**

Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP//RDB

Phone: 301.415.3178  
Mobile: (b)(6)  
E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)  
Office Location: T-5A64  
Mail Stop: T-5A10



**From:** Vaaler, Marlayna  
**Sent:** Mon, 20 Aug 2018 21:07:28 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: (b)(5)  
**Attachments:** NUREG-0586, Supplement 1, Volume 1, Appendix H.pdf

Attachment is publicly  
available at  
ML023470323, pgs. 62-  
93

Thanks Andy...I will definitely look into it...I just googled the NUREG and found Appendix H (attached if you may still need it in the future) in the public domain, but maybe our internal system is missing something.

Have a great night!  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 20, 2018 5:05 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** FW: (b)(5)

Marlayna,

I found the information I was looking for, so I do not need to see App. H. However, if there is indeed a "gap" in the online NUREG-0586 version (i.e., no App. E through App. M), the staff may want to fix that.

Thank you,

Andy

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 20, 2018 5:00 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** RE: (b)(5)

Marlayna,

Do you know where I can find App. H of the Decommissioning GEIS? The on-line version ends after App. D, and the next volume starts with App. N.

Thank you,

Andy

---

**From:** Vaaler, Marlayna  
**Sent:** Monday, August 20, 2018 4:21 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** RE: (b)(5)

(b)(5)

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 20, 2018 4:17 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** RE: (b)(5)

Marlayna,

(b)(5)

Thank you,

Andy

---

**From:** Vaaler, Marlayna  
**Sent:** Monday, August 20, 2018 12:42 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** Re: (b)(5)

Hi Andy!

(b)(5)

Cheers,  
Marlayna  
415.3178

On: 20 August 2018 11:43, "Pessin, Andrew" <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)> wrote:

Marlayna,

(b)(5)

Thank you,

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~

---

**From:** Vaaler, Marlayna  
**Sent:** Thursday, August 16, 2018 3:56 PM



**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>

**Subject:** RE: (b)(5)

Hi Andy!

|        |        |
|--------|--------|
| (b)(6) | (b)(5) |
| (b)(5) |        |

Cheers,  
Marlayna  
415.3178

---

**From:** Pessin, Andrew

**Sent:** Wednesday, August 15, 2018 7:00 PM

**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>

**Subject:** (b)(5)

Hi Marlayna,

(b)(5)

(b)(5)

(b)(5)



Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Mon, 20 Aug 2018 22:30:54 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: (b)(5)

(b)(5)

Cheers,  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 20, 2018 6:15 PM  
**To:** Vaaler, Marlayna <Marlayna.Vaaler@nrc.gov>  
**Subject:** RE: (b)(5)

Marlayna,

(b)(5)

Thank you,

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~

---

**From:** Vaaler, Marlayna  
**Sent:** Monday, August 20, 2018 5:15 PM  
**To:** Pessin, Andrew <Andrew.Pessin@nrc.gov>  
**Subject:** RE: (b)(5)

(b)(5)

Cheers,  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 20, 2018 5:11 PM

**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>

**Subject:** RE: (b)(5)

Marlayna,

Thank you. You have a great night too.

(b)(5)

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*

---

**From:** Vaaler, Marlayna

**Sent:** Monday, August 20, 2018 5:07 PM

**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>

**Subject:** RE: (b)(5)

Thanks Andy...I will definitely look into it...I just googled the NUREG and found Appendix H (attached if you may still need it in the future) in the public domain, but maybe our internal system is missing something.

Have a great night!  
Marlayna  
415.3178

---

**From:** Pessin, Andrew

**Sent:** Monday, August 20, 2018 5:05 PM

**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>

**Subject:** FW: (b)(5)

Marlayna,

I found the information I was looking for, so I do not need to see App. H. However, if there is indeed a "gap" in the online NUREG-0586 version (i.e., no App. E through App. M), the staff may want to fix that.

Thank you,

Andy

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 20, 2018 5:00 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** RE: (b)(5)

Marlayna,

Do you know where I can find App. H of the Decommissioning GEIS? The on-line version ends after App. D, and the next volume starts with App. N.

Thank you,

Andy

---

**From:** Vaaler, Marlayna  
**Sent:** Monday, August 20, 2018 4:21 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** RE: (b)(5)

(b)(5)

---

**From:** Pessin, Andrew  
**Sent:** Monday, August 20, 2018 4:17 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** RE: (b)(5)

Marlayna,

(b)(5)

Thank you,

Andy

---

**From:** Vaaler, Marlayna  
**Sent:** Monday, August 20, 2018 12:42 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** Re: (b)(5)

Hi Andy!

(b)(5)

Cheers,  
Marlayna  
415.3178

On: 20 August 2018 11:43, "Pessin, Andrew" <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)> wrote:

Marlayna,

(b)(5)

Thank you,

Andy

~~Official Use Only - Attorney-Client Privilege/Attorney Work Product~~

---

**From:** Vaaler, Marlayna  
**Sent:** Thursday, August 16, 2018 3:56 PM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** RE: (b)(5)

Hi Andy!

(b)(6)

(b)(5)

(b)(5)

Cheers,  
Marlayna  
415.3178

---

**From:** Pessin, Andrew  
**Sent:** Wednesday, August 15, 2018 7:00 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Subject:** (b)(5)

Hi Marlayna,

(b)(5)

(b)(5)



(b)(5)

Thank you,

Andy

Andrew S. Pessin

Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Maltese, James  
**Sent:** Fri, 24 Aug 2018 16:32:13 +0000  
**To:** Pessin, Andrew  
**Subject:** RE: SONGS

Thanks Andy. (b)(5)

(b)(5)

---

**From:** Pessin, Andrew  
**Sent:** Friday, August 24, 2018 11:40 AM  
**To:** Maltese, James <James.Maltese@nrc.gov>  
**Subject:** SONGS

Jim,

FYI,

Andy

~~Official Use Only - Attorney Client Privilege/Attorney Work Product~~

---

**From:** Vaaler, Marlayna  
**Sent:** Friday, August 24, 2018 11:38 AM  
**To:** Pessin, Andrew <[Andrew.Pessin@nrc.gov](mailto:Andrew.Pessin@nrc.gov)>  
**Subject:** (b)(5)

Hi Andy!

(b)(5)

(b)(5)

Marlayna  
415.3178

---

**From:** Vaaler, Marlayna  
**Sent:** Tuesday, August 21, 2018 12:47 PM  
**To:** Records Resource <[Records.Resource@nrc.gov](mailto:Records.Resource@nrc.gov)>  
**Subject:** (b)(5)  
**Importance:** High

Good afternoon!

(b)(5)

Thank you for the help as always and I hope that you are having a great day!  
Marlayna  
415.3178

**Marlayna Vaaler**

~~~~~  
Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP//RDB

Phone: 301.415.3178  
Mobile: (b)(6)  
E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)  
Office Location: T-5A64  
Mail Stop: T-5A10

**From:** Pessin, Andrew  
**Sent:** Wed, 29 Aug 2018 18:05:26 +0000  
**To:** Campbell, Tison  
**Subject:** (b)(5)  
**Attachments:** (b)(5)  
29, 2018.docx  
**Importance:** High

Attachment  
same to  
email dated  
August 29,  
2018

Tison,

(b)(5)

Thanks,

Andy

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Pessin, Andrew  
**Sent:** Fri, 3 Aug 2018 20:26:32 +0000  
**To:** Doell, Marlayna

**Subject:** (b)(5)

**Attachments:** (b)(5)

(b)(5)

**Importance:** High

Attachments same  
to email dated  
August 3, 2018

Marlayna,

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Vaaler, Marlayna  
**Sent:** Monday, July 30, 2018 6:06 PM  
**To:** OGCMailCenter Resource <[OGCMailCenter.Resource@nrc.gov](mailto:OGCMailCenter.Resource@nrc.gov)>  
**Subject:** REQUEST FOR REVIEW/NLO: (b)(5)

Good afternoon!

(b)(5)

Thank you for the assistance as always, and please let me know if you have any questions or  
need anything additional!  
Marlayna

415.3178

**Marlayna Vaaler**

~~~~~  
Decommissioning Project Manager  
U.S. Nuclear Regulatory Commission  
NMSS/DUWP//RDB

Phone: 301.415.3178

Mobile: (b)(6)

E-mail: [marlayna.vaaler@nrc.gov](mailto:marlayna.vaaler@nrc.gov)

Office Location: T-5A64

Mail Stop: T-5A10

**From:** Pessin, Andrew  
**Sent:** Wed, 15 Aug 2018 23:00:22 +0000  
**To:** Doell, Marlayna  
**Subject:** (b)(5)

Hi Marlayna,

(b)(5)

Thank you,

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission



OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** Pessin, Andrew  
**Sent:** Thu, 23 Aug 2018 19:32:04 +0000  
**To:** Averbach, Andrew  
**Cc:** Clark, Brooke;Campbell, Tison;Silvia, Andrea;Maltese, James  
**Subject:** (b)(5)

Andrew,

|        |        |
|--------|--------|
| (b)(6) | (b)(5) |
| (b)(5) |        |

Andy

Andrew S. Pessin  
Senior Attorney  
United States Nuclear Regulatory Commission  
OGC/GCLR/RMR  
(301) 287-9179

~~\*\*\*\*\* ATTORNEY WORK-PRODUCT AND/OR ATTORNEY CLIENT PRIVILEGE. DO NOT  
DISTRIBUTE OUTSIDE THE NRC WITHOUT COMMISSION APPROVAL \*\*\*\*\*~~

**From:** [Averbach, Andrew](#)  
**To:** [steven\\_saltiel@ca9.uscourts.gov](mailto:steven_saltiel@ca9.uscourts.gov)  
**Cc:** [Adler, James; Ying, Evelyn \(ENRD\)](#)  
**Subject:** (b)(3);5 U.S.C. § 574 (j)  
**Date:** Thursday, April 23, 2020 1:26:00 PM

---

(b)(3);5 U.S.C. § 574 (j)

(b)(3):5 U.S.C. § 574 (j)



Andrew P. Averbach  
Solicitor  
U.S. Nuclear Regulatory Commission  
(301) 415-1956  
[andrew.averbach@nrc.gov](mailto:andrew.averbach@nrc.gov)

**From:** [Anderson, Stephanie](#)  
**To:** ["DENNIS EVANS"](#)  
**Cc:** [Steely, Chris](#); [Smith, Chris](#); [Katanic, Janine](#); [MARK MORGAN](#); [ALBERT BATES](#)  
**Subject:** Inspection  
**Date:** Friday, March 08, 2019 12:47:02 PM

---

Hi Dennis,

We have decided to come out on April 22-26, 2019, to do another inspection just to look at IP 40801. The team will be led by Chris Steely. Myself and Chris Smith will also be on the team. Please let me know if you have any questions. We will send a document request soon for the inspection. This inspection does not replace the inspection scheduled for June 3-6, 2019.

Thanks,  
Stephanie Anderson

**From:** [Anderson, Stephanie](#)  
**To:** [Katanic, Janine](#); [Steely, Chris](#)  
**Subject:** RE: FW: (External):Inspection Report Questions  
**Date:** Wednesday, March 06, 2019 10:17:22 AM  
**Attachments:** [image001.png](#)

---

I talked with Dennis and he understands, where the NRC is coming from in regards to answering a contractors questions. No additional action at this time is needed.

---

**From:** Katanic, Janine

**Sent:** Wednesday, March 06, 2019 9:14 AM

**To:** Anderson, Stephanie <[Stephanie.Anderson@nrc.gov](mailto:Stephanie.Anderson@nrc.gov)>; Steely, Chris <[Chris.Steely@nrc.gov](mailto:Chris.Steely@nrc.gov)>

**Subject:** RE: FW: (External):Inspection Report Questions

Follow back up with Dennis, preferably in a phone call, explain to him that for regulatory matters and enforcement questions involving licensed activities, just like we interact with SCE not Holtec; we interact with SCE not SDS. If SCE has these questions, they can pose them to us. If SCE does not have these questions, then no response will be provided.

---

**From:** Anderson, Stephanie

**Sent:** Wednesday, March 06, 2019 8:54 AM

**To:** Katanic, Janine <[Janine.Katanic@nrc.gov](mailto:Janine.Katanic@nrc.gov)>; Steely, Chris <[Chris.Steely@nrc.gov](mailto:Chris.Steely@nrc.gov)>

**Subject:** RE: FW: (External):Inspection Report Questions

No, the questions were asked to us by SDS. Steve Mannon is the Regulatory Affairs Manager for SDS. Not SCE.

---

**From:** Katanic, Janine

**Sent:** Wednesday, March 06, 2019 8:48 AM

**To:** Anderson, Stephanie <[Stephanie.Anderson@nrc.gov](mailto:Stephanie.Anderson@nrc.gov)>; Steely, Chris <[Chris.Steely@nrc.gov](mailto:Chris.Steely@nrc.gov)>

**Subject:** RE: FW: (External):Inspection Report Questions

We can set up a call with them for when you are back in the office and after the IMPEP, so it is going to be a few weeks. We are not providing a response in writing. Also I want to understand that these questions are coming from SCE because SDS is not the licensee. Yes Dennis forwarded them, but are these questions being posed by SCE?

---

**From:** Anderson, Stephanie

**Sent:** Wednesday, March 06, 2019 6:55 AM

**To:** Steely, Chris <[Chris.Steely@nrc.gov](mailto:Chris.Steely@nrc.gov)>; Katanic, Janine <[Janine.Katanic@nrc.gov](mailto:Janine.Katanic@nrc.gov)>

**Subject:** FW: FW: (External):Inspection Report Questions

FYI

---

**From:** DENNIS EVANS [<mailto:Dennis.Evans@sce.com>]

**Sent:** Tuesday, March 05, 2019 2:50 PM

**To:** Anderson, Stephanie <[Stephanie.Anderson@nrc.gov](mailto:Stephanie.Anderson@nrc.gov)>

**Cc:** Mannon, Steven <[steven.mannon@aec.com](mailto:steven.mannon@aec.com)>; MARK MORGAN <[Mark.Morgan@sce.com](mailto:Mark.Morgan@sce.com)>

**Subject:** [External\_Sender] FW: (External):Inspection Report Questions

---

**From:** Mannon, Steven [<mailto:steven.mannon@aec.com>]

**Sent:** Tuesday, March 05, 2019 12:43 PM

**To:** DENNIS EVANS <[Dennis.Evans@sce.com](mailto:Dennis.Evans@sce.com)>

**Subject:** (External):Inspection Report Questions

Dennis,

It was IMC 612 Appendix E, thanks for the catch. I revised the sheet attached.

**Steve Mannon**

Regulatory Affairs

D +1-949-368-7386 (PAX 87386)

M + (b)(6)

[steven.mannon@aecom.com](mailto:steven.mannon@aecom.com)



**SONGS Decommissioning Solutions**

San Onofre Nuclear Generating Station

5000 Pacific Coast Hwy, MS D3B

San Clemente, CA 92673



**From:** [Kock, Andrea](#)  
**To:** [Warnick, Greg](#); [Howell, Linda](#); [Muessle, Mary](#); [Regan, Christopher](#); [Holahan, Trish](#); [Pham, Bo](#); [Lopez-Santiago, Omar](#); [Morgan-Butler, Kimyata](#); [Morris, Scott](#); [Veget, Anton](#)  
**Cc:** [Brookhart, Lee](#); [Smith, Chris](#); [Dunn, Darrell](#); [Dricks, Victor](#); [Maier, Bill](#); [Moreno, Angel](#); [Snyder, Amy](#); [Watson, Bruce](#); [Cuadrado, Leira](#); [Boyce, Tom](#); [McKirgan, John](#); [Diaz Sanabria, Yaira](#); [Chang, Richard](#)  
**Subject:** RE: Unexpected Condition Identified in Unit 2 SFP  
**Date:** Thursday, June 04, 2020 11:57:42 AM

---

Nice summary. Thanks Greg!

---

**From:** Warnick, Greg <Greg.Warnick@nrc.gov>  
**Sent:** Thursday, June 04, 2020 12:09 PM  
**To:** Howell, Linda <Linda.Howell@nrc.gov>; Muessle, Mary <Mary.Muessle@nrc.gov>; Kock, Andrea <Andrea.Kock@nrc.gov>; Regan, Christopher <Christopher.Regan@nrc.gov>; Holahan, Trish <Patricia.Holahan@nrc.gov>; Pham, Bo <Bo.Pham@nrc.gov>; Lopez-Santiago, Omar <Omar.Lopez-Santiago@nrc.gov>; Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>; Morris, Scott <Scott.Morris@nrc.gov>; Veget, Anton <Anton.Veget@nrc.gov>  
**Cc:** Brookhart, Lee <Lee.Brookhart@nrc.gov>; Smith, Chris <Chris.Smith@nrc.gov>; Dunn, Darrell <Darrell.Dunn@nrc.gov>; Dricks, Victor <Victor.Dricks@nrc.gov>; Maier, Bill <Bill.Maier@nrc.gov>; Moreno, Angel <Angel.Moreno@nrc.gov>; Snyder, Amy <Amy.Snyder@nrc.gov>; Watson, Bruce <Bruce.Watson@nrc.gov>; Cuadrado, Leira <Leira.Cuadrado-Caraballo@nrc.gov>; Boyce, Tom <Tom.Boyce@nrc.gov>; McKirgan, John <John.McKirgan@nrc.gov>; Diaz Sanabria, Yaira <Yaira.Diaz-Sanabria@nrc.gov>; Chang, Richard <Richard.Chang@nrc.gov>  
**Subject:** RE: Unexpected Condition Identified in Unit 2 SFP

Below is a brief update of the licensee's and NRC's actions for this condition. SCE resumed loading activities in Unit 2 spent fuel pool this morning and multi-purpose canister (MPC) processing (i.e. lid placement, etc.) will begin on Monday, June 8.

### Background

In 1991, SCE performed a cleanup of Unit 2 and Unit 3 spent fuel pools. The cleanup involved vacuuming up small fuel detritus, and various foreign materials from within the spent fuel pools. The licensee used a fine stainless steel mesh (40 micron) bag to act as the vacuum filter during the cleaning activities. At the end of the cleanup activities, several of the stainless steel mesh vacuum filter bags were collected in each unit. The licensee placed these stainless steel vacuum filter bags inside designated waste containers in the spent fuel pool. Each waste container is approximately 8 inches square and 15 feet long and is designed with small pencil-sized holes to permit spent fuel pool water to completely cover the contents. Unit 2 and Unit 3 each have approximately 15 of these waste containers, however only 1 waste container from each unit houses the stainless steel vacuum filter bags – the remainder of the waste containers house various other items such as in-core nuclear instrumentation. The stainless steel mesh vacuum filter bags filled up about 5 of the 15 feet of the waste container.

Last week, during preparations for loading the final MPC in Unit 2, corrosion products were observed on the exterior surface and trailing out of the drain holes of the TR-4 waste container (which contained the debris from the vacuum filters) during movement of the waste container from one



location to another within the spent fuel pool. Unit 3 has a corresponding waste container TR-5 which also contained the debris from the vacuum filters, and it exhibited similar corrosion. However, none of the non-vacuum filter filled waste containers exhibited any corrosion.

### **Licensee actions**

SCE stopped work to determine the source and cause of the corrosion on TR-4 and TR-5 as required by their corrective action program. A visual and chemical analysis was performed and documented in an engineering evaluation. The evaluation concluded that the corrosion products are comprised of Chromium, Iron, and Nickel. Those elements are major constituents of the stainless steel mesh vacuum filter bags that are housed in TR-4 and TR-5. The report further determined that the stainless steel vacuum filter bags were corroding because of the high acidic environment (normal for a spent fuel pool) coupled with the air-starved environment and stagnant water flow within the TR-4 and TR-5 waste receptacles.

The licensee completed a regulatory analysis to ensure the TR-4 and TR-5, and their contents, are compatible with the MPC and won't adversely affect any design function. The review found that the TR-4/5 contents, including the corrosion products, are acceptable for placement in the Part 72 licensed canister.

### **NRC actions**

The NRC independently reviewed the licensee's operational actions, engineering evaluation, and the regulatory analysis for the TR-4/5 waste containers. In consultation with HQ NMSS materials experts, the NRC concluded there was no safety concern regarding the corrosion products for TR-4/5. The NRC independently confirmed the likely cause of the corrosion was the stainless steel vacuum filter bags. Further, the NRC did not object with the licensee's plans to load after a review of the evaluations and analyses. However, the NRC noted that it was critical to ensure the MPC is completely devoid of any moisture to ensure that the corrosion process is arrested. The normal drying process ensures moisture is removed in accordance with license requirements, however to provide added assurance the drying time for the MPCs containing TR-4 and TR-5 will be extended.

---

**From:** Warnick, Greg

**Sent:** Thursday, May 28, 2020 3:11 PM

**To:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Muessle, Mary <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>; Kock, Andrea <[Andrea.Kock@nrc.gov](mailto:Andrea.Kock@nrc.gov)>; Regan, Christopher <[Christopher.Regan@nrc.gov](mailto:Christopher.Regan@nrc.gov)>; Holahan, Trish <[Patricia.Holahan@nrc.gov](mailto:Patricia.Holahan@nrc.gov)>; Pham, Bo <[Bo.Pham@nrc.gov](mailto:Bo.Pham@nrc.gov)>; Lopez-Santiago, Omar <[Omar.Lopez-Santiago@nrc.gov](mailto:Omar.Lopez-Santiago@nrc.gov)>; Morgan-Butler, Kimyata <[Kimyata.Morgan-Butler@nrc.gov](mailto:Kimyata.Morgan-Butler@nrc.gov)>; Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>

**Cc:** Brookhart, Lee <[Lee.Brookhart@nrc.gov](mailto:Lee.Brookhart@nrc.gov)>; Smith, Chris <[Chris.Smith@nrc.gov](mailto:Chris.Smith@nrc.gov)>; Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>; Maier, Bill <[Bill.Maier@nrc.gov](mailto:Bill.Maier@nrc.gov)>; Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>

**Subject:** Unexpected Condition Identified in Unit 2 SFP

Al Bates (SCE Regulatory Affairs and Oversight Manager) contacted me this afternoon to brief me on the recent discovery of an unexpected condition identified in the U2 SFP.

Background: In 1991, the licensee re-racked the SFPs in Units 2 and 3. The bottom of SFPs needed to be cleaned as part of the re-rack process. A couple areas of concern existed where the licensee had previously reconstituted fuel in the past. In these area, the licensee used a vacuum device to collect fuel debris, put the filters and debris into bags, and then put the bags into debris receptacles (trash cans). These trash cans have been sitting within a storage cell in each SFP for the past 29 years.

The current plan was to load the trash can into the final MPCs for each unit. Earlier this week, when preparing for the loading of the final MPC in Unit 2, workers were moving the trash can to another cell and noted an unexpected vivid green substance plated on the outside of the receptacle. Workers also noted a green trail behind the trash can during movement. The licensee believes that the unexpected green substance may be some sort of metallic corrosion product (e.g. ferric oxide) and are presently evaluating.

The plan to load the final MPC in Unit 2 next week has been suspended until a full evaluation is completed and corrective actions have been implemented. The licensee will instead proceed with MPC loading and processing in Unit 3 (eight MPCs remain).

Consistent with SCE's strategy to ensure transparency and be ahead of potential public engagement, Doug Bauder plans to mention this unexpected condition at a high level tonight during the CEP meeting.

My inspectors are engaged with SCE engineering staff to gain a better technical understanding of the problem and what corrective actions the licensee plans to resolve the issue.

I'll share more details as they becomes available.

Greg

**Greg Warnick**

Chief, Reactor Inspection Branch

NRC Region IV

Ofc 817 200-1249

**From:** [Muessle, Mary](#)  
**To:** [Veget, Anton](#); [Morris, Scott](#)  
**Cc:** [Howell, Linda](#)  
**Subject:** FW: Unexpected Condition Identified in Unit 2 SFP  
**Date:** Thursday, June 04, 2020 11:12:26 AM

---

More detail on our review and updates.

Mary Muessle  
Director, Division of Nuclear Materials Safety  
Region IV

**REGION IV VISION:**

*"Together, we work to foster a culture of high trust that maximizes professional growth and inspires leadership at all levels."*

---

**From:** Warnick, Greg <Greg.Warnick@nrc.gov>  
**Sent:** Thursday, June 04, 2020 11:09 AM  
**To:** Howell, Linda <Linda.Howell@nrc.gov>; Muessle, Mary <Mary.Muessle@nrc.gov>; Kock, Andrea <Andrea.Kock@nrc.gov>; Regan, Christopher <Christopher.Regan@nrc.gov>; Holahan, Trish <Patricia.Holahan@nrc.gov>; Pham, Bo <Bo.Pham@nrc.gov>; Lopez-Santiago, Omar <Omar.Lopez-Santiago@nrc.gov>; Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>; Morris, Scott <Scott.Morris@nrc.gov>; Veget, Anton <Anton.Veget@nrc.gov>  
**Cc:** Brookhart, Lee <Lee.Brookhart@nrc.gov>; Smith, Chris <Chris.Smith@nrc.gov>; Dunn, Darrell <Darrell.Dunn@nrc.gov>; Dricks, Victor <Victor.Dricks@nrc.gov>; Maier, Bill <Bill.Maier@nrc.gov>; Moreno, Angel <Angel.Moreno@nrc.gov>; Snyder, Amy <Amy.Snyder@nrc.gov>; Watson, Bruce <Bruce.Watson@nrc.gov>; Cuadrado, Leira <Leira.Cuadrado-Caraballo@nrc.gov>; Boyce, Tom <Tom.Boyce@nrc.gov>; McKirgan, John <John.McKirgan@nrc.gov>; Diaz Sanabria, Yaira <Yaira.Diaz-Sanabria@nrc.gov>; Chang, Richard <Richard.Chang@nrc.gov>  
**Subject:** RE: Unexpected Condition Identified in Unit 2 SFP

Below is a brief update of the licensee's and NRC's actions for this condition. SCE resumed loading activities in Unit 2 spent fuel pool this morning and multi-purpose canister (MPC) processing (i.e. lid placement, etc.) will begin on Monday, June 8.

**Background**

In 1991, SCE performed a cleanup of Unit 2 and Unit 3 spent fuel pools. The cleanup involved vacuuming up small fuel detritus, and various foreign materials from within the spent fuel pools. The licensee used a fine stainless steel mesh (40 micron) bag to act as the vacuum filter during the cleaning activities. At the end of the cleanup activities, several of the stainless steel mesh vacuum filter bags were collected in each unit. The licensee placed these stainless steel vacuum filter bags inside designated waste containers in the spent fuel pool. Each waste container is approximately 8 inches square and 15 feet long and is designed with small pencil-sized holes to permit spent fuel pool water to completely cover the contents. Unit 2 and Unit 3 each have approximately 15 of these waste containers, however only 1 waste container from each unit houses the stainless steel vacuum



filter bags – the remainder of the waste containers house various other items such as in-core nuclear instrumentation. The stainless steel mesh vacuum filter bags filled up about 5 of the 15 feet of the waste container.

Last week, during preparations for loading the final MPC in Unit 2, corrosion products were observed on the exterior surface and trailing out of the drain holes of the TR-4 waste container (which contained the debris from the vacuum filters) during movement of the waste container from one location to another within the spent fuel pool. Unit 3 has a corresponding waste container TR-5 which also contained the debris from the vacuum filters, and it exhibited similar corrosion. However, none of the non-vacuum filter filled waste containers exhibited any corrosion.

### **Licensee actions**

SCE stopped work to determine the source and cause of the corrosion on TR-4 and TR-5 as required by their corrective action program. A visual and chemical analysis was performed and documented in an engineering evaluation. The evaluation concluded that the corrosion products are comprised of Chromium, Iron, and Nickel. Those elements are major constituents of the stainless steel mesh vacuum filter bags that are housed in TR-4 and TR-5. The report further determined that the stainless steel vacuum filter bags were corroding because of the high acidic environment (normal for a spent fuel pool) coupled with the air-starved environment and stagnant water flow within the TR-4 and TR-5 waste receptacles.

The licensee completed a regulatory analysis to ensure the TR-4 and TR-5, and their contents, are compatible with the MPC and won't adversely affect any design function. The review found that the TR-4/5 contents, including the corrosion products, are acceptable for placement in the Part 72 licensed canister.

### **NRC actions**

The NRC independently reviewed the licensee's operational actions, engineering evaluation, and the regulatory analysis for the TR-4/5 waste containers. In consultation with HQ NMSS materials experts, the NRC concluded there was no safety concern regarding the corrosion products for TR-4/5. The NRC independently confirmed the likely cause of the corrosion was the stainless steel vacuum filter bags. Further, the NRC did not object with the licensee's plans to load after a review of the evaluations and analyses. However, the NRC noted that it was critical to ensure the MPC is completely devoid of any moisture to ensure that the corrosion process is arrested. The normal drying process ensures moisture is removed in accordance with license requirements, however to provide added assurance the drying time for the MPCs containing TR-4 and TR-5 will be extended.

---

**From:** Warnick, Greg

**Sent:** Thursday, May 28, 2020 3:11 PM

**To:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Muessle, Mary <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>; Kock, Andrea <[Andrea.Kock@nrc.gov](mailto:Andrea.Kock@nrc.gov)>; Regan, Christopher <[Christopher.Regan@nrc.gov](mailto:Christopher.Regan@nrc.gov)>; Holahan, Trish <[Patricia.Holahan@nrc.gov](mailto:Patricia.Holahan@nrc.gov)>; Pham, Bo <[Bo.Pham@nrc.gov](mailto:Bo.Pham@nrc.gov)>; Lopez-Santiago, Omar <[Omar.Lopez-Santiago@nrc.gov](mailto:Omar.Lopez-Santiago@nrc.gov)>; Morgan-Butler, Kimyata <[Kimyata.Morgan-Butler@nrc.gov](mailto:Kimyata.Morgan-Butler@nrc.gov)>; Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>

**Cc:** Brookhart, Lee <[Lee.Brookhart@nrc.gov](mailto:Lee.Brookhart@nrc.gov)>; Smith, Chris <[Chris.Smith@nrc.gov](mailto:Chris.Smith@nrc.gov)>; Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>; Maier, Bill <[Bill.Maier@nrc.gov](mailto:Bill.Maier@nrc.gov)>; Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>

**Subject:** Unexpected Condition Identified in Unit 2 SFP

Al Bates (SCE Regulatory Affairs and Oversight Manager) contacted me this afternoon to brief me on the recent discovery of an unexpected condition identified in the U2 SFP.

Background: In 1991, the licensee re-racked the SFPs in Units 2 and 3. The bottom of SFPs needed to be cleaned as part of the re-rack process. A couple areas of concern existed where the licensee had previously reconstituted fuel in the past. In these area, the licensee used a vacuum device to collect fuel debris, put the filters and debris into bags, and then put the bags into debris receptacles (trash cans). These trash cans have been sitting within a storage cell in each SFP for the past 29 years.

The current plan was to load the trash can into the final MPCs for each unit. Earlier this week, when preparing for the loading of the final MPC in Unit 2, workers were moving the trash can to another cell and noted an unexpected vivid green substance plated on the outside of the receptacle. Workers also noted a green trail behind the trash can during movement. The licensee believes that the unexpected green substance may be some sort of metallic corrosion product (e.g. ferric oxide) and are presently evaluating.

The plan to load the final MPC in Unit 2 next week has been suspended until a full evaluation is completed and corrective actions have been implemented. The licensee will instead proceed with MPC loading and processing in Unit 3 (eight MPCs remain).

Consistent with SCE's strategy to ensure transparency and be ahead of potential public engagement, Doug Bauder plans to mention this unexpected condition at a high level tonight during the CEP meeting.

My inspectors are engaged with SCE engineering staff to gain a better technical understanding of the problem and what corrective actions the licensee plans to resolve the issue.

I'll share more details as they becomes available.

Greg

**Greg Warnick**

Chief, Reactor Inspection Branch

NRC Region IV

Ofc 817 200-1249



**From:** [Muessle, Mary](#)  
**To:** [Morris, Scott](#); [Veget, Anton](#)  
**Cc:** [Howell, Linda](#)  
**Subject:** FW: Unexpected Condition Identified in Unit 2 SFP  
**Date:** Thursday, June 04, 2020 8:26:56 AM

---

Awareness, based on Region IV and NMSS analysis, we have no concerns with SONGS moving forward with removing the “trash can”. They will start loading the MPC with spent fuel and the debris canister tomorrow morning. MPC processing (i.e. lid placement, etc.) will begin on Monday, June 8.

Original email on condition is found below this email. Directly below are answers to Levin's staff questions that we anticipate sending later this morning.

Yes, the debris receptacles contain several fine mesh bags that were used as the vacuum filters. The vacuum/cleaning of the spent fuel pool in the early 1990's captured various fuel detritus, and various small unquantifiable foreign materials from the spent fuel pool.

*1. Is the debris receptacle sealed? Is it water tight?*

No, it is not watertight and is designed to have small holes such that spent fuel pool water completely covers the contents. The debris receptacle is approximately 8 inches square, and 15 feet long. Along the long axis, a series of small pencil-sized holes permit water into/out of the receptacle.

*2. Given the public concerns around canisters and corrosion, we think that this could end up getting a lot of attention. Why is this particular corrosion a concern?*

A MPC, and it's internals, are a sealed canister filled with an inert gas. There is no moisture or mechanism to cause corrosion within the MPC. With the inert environment, no additional corrosion can take place nor will the pre-existing corrosion products adversely affect the MPC. Further, the entirety of the debris receptacles are placed into designated damaged fuel canister inserts, specifically designed as another enclosure within the MPC.

*3. What is the hazard associated with the corrosion? What could happen if the situation goes wrong?*

The receptacle walls were not challenged. The corrosion was caused by the fine mesh stainless steel filters, whose only purpose was to collect and conduct debris from the pool vacuuming activities into the receptacles. Debris receptacles were still serving their function to house and control the debris.

*4. If it's found that conditions in the pools were different than anticipated, thus causing the corrosion, is there a concern that Unit 2 fuel assemblies could be affected in some way?*

Spent Fuel Pool parameters (including chemistry, clarity, illumination, temperature, and boron content) is very tightly controlled by the plant's technical specifications and periodically independently reviewed by the NRC inspectors. The spent fuel pools, for both unit 2 and unit 3 are in compliance with those specifications and there is not a concern regarding the fuel.

5. Are you looking at the Unit 3 pool for similar issues?

Yes, unit 3 was inspected and was found to have similar corrosion products on the debris receptacle in that spent fuel pool.

Mary Muessle  
Director, Division of Nuclear Materials Safety  
Region IV

REGION IV **VISION:**

*"Together, we work to foster a culture of high trust that maximizes professional growth and inspires leadership at all levels."*

---

**From:** Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>

**Sent:** Thursday, May 28, 2020 4:11 PM

**To:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Muessle, Mary <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>; Kock, Andrea <[Andrea.Kock@nrc.gov](mailto:Andrea.Kock@nrc.gov)>; Regan, Christopher <[Christopher.Regan@nrc.gov](mailto:Christopher.Regan@nrc.gov)>; Holahan, Trish <[Patricia.Holahan@nrc.gov](mailto:Patricia.Holahan@nrc.gov)>; Pham, Bo <[Bo.Pham@nrc.gov](mailto:Bo.Pham@nrc.gov)>; Lopez-Santiago, Omar <[Omar.Lopez-Santiago@nrc.gov](mailto:Omar.Lopez-Santiago@nrc.gov)>; Morgan-Butler, Kimyata <[Kimyata.Morgan-Butler@nrc.gov](mailto:Kimyata.Morgan-Butler@nrc.gov)>; Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>

**Cc:** Brookhart, Lee <[Lee.Brookhart@nrc.gov](mailto:Lee.Brookhart@nrc.gov)>; Smith, Chris <[Chris.Smith@nrc.gov](mailto:Chris.Smith@nrc.gov)>; Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>; Maier, Bill <[Bill.Maier@nrc.gov](mailto:Bill.Maier@nrc.gov)>; Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>

**Subject:** Unexpected Condition Identified in Unit 2 SFP

AI Bates (SCE Regulatory Affairs and Oversight Manager) contacted me this afternoon to brief me on the recent discovery of an unexpected condition identified in the U2 SFP.

Background: In 1991, the licensee re-racked the SFPs in Units 2 and 3. The bottom of SFPs needed to be cleaned as part of the re-rack process. A couple areas of concern existed where the licensee had previously reconstituted fuel in the past. In these area, the licensee used a vacuum device to collect fuel debris, put the filters and debris into bags, and then put the bags into debris receptacles (trash cans). These trash cans have been sitting within a storage cell in each SFP for the past 29 years.

The current plan was to load the trash can into the final MPCs for each unit. Earlier this week, when preparing for the loading of the final MPC in Unit 2, workers were moving the trash can to another cell and noted an unexpected vivid green substance plated on the outside of the receptacle. Workers also noted a green trail behind the trash can during movement. The licensee believes that the unexpected green substance may be some sort of metallic corrosion product (e.g. ferric oxide) and are presently evaluating.

The plan to load the final MPC in Unit 2 next week has been suspended until a full evaluation is completed and corrective actions have been implemented. The licensee will instead proceed with MPC loading and processing in Unit 3 (eight MPCs remain).

Consistent with SCE's strategy to ensure transparency and be ahead of potential public

engagement, Doug Bauder plans to mention this unexpected condition at a high level tonight during the CEP meeting.

My inspectors are engaged with SCE engineering staff to gain a better technical understanding of the problem and what corrective actions the licensee plans to resolve the issue.

I'll share more details as they becomes available.

Greg

**Greg Warnick**

Chief, Reactor Inspection Branch

NRC Region IV

Ofc 817 200-1249



**From:** [Howell, Linda](#)  
**To:** [Muessle, Mary](#); [Morris, Scott](#); [Veget, Anton](#); [Kock, Andrea](#); [Regan, Christopher](#); [Holahan, Trish](#); [Pham, Bo](#); [Morgan-Butler, Kimyata](#); [Lopez-Santiago, Omar](#)  
**Cc:** [Warnick, Greg](#); [Moreno, Angel](#); [Dricks, Victor](#); [McIntyre, David](#)  
**Subject:** Congressional Outreach  
**Date:** Thursday, May 28, 2020 6:47:57 PM

---

All, earlier today you received an email from Greg Warnick of the RIV/DNMS staff describing an unexpected observation involving the SONGS Unit 2 spent fuel pool as the licensee was preparing loading of the final MPC for the Unit 2 spent fuel. We have talked with OCA and NMSS and are prepared to be proactive in offering a briefing for Representative Levin's staff tomorrow afternoon. While not much is known yet about the cause of what was observed, Region IV inspectors have already engaged with SCE staff to initiate oversight activities. Doug Bauder does plan to provide some brief information on this during this evening's Community Engagement Panel meeting, so we are planning to reach out to let the Representative's staff know that we are actively reviewing the issue.

**From:** [Veget, Anton](#)  
**To:** [Muessle, Mary](#); [Morris, Scott](#)  
**Cc:** [Howell, Linda](#)  
**Subject:** RE: SONGS RPV Communications ~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC UNLESS THE COMMISSION DETERMINES OTHERWISE~~  
**Date:** Tuesday, May 26, 2020 2:24:23 PM

---

Mary

Thanks for the update! Great job by Stephanie and the DNMS team.

Tony V.

---

**From:** Muessle, Mary <Mary.Muessle@nrc.gov>  
**Sent:** Tuesday, May 26, 2020 2:22 PM  
**To:** Morris, Scott <Scott.Morris@nrc.gov>; Veget, Anton <Anton.Veget@nrc.gov>  
**Cc:** Howell, Linda <Linda.Howell@nrc.gov>  
**Subject:** FW: SONGS RPV Communications ~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC UNLESS THE COMMISSION DETERMINES OTHERWISE~~

~~**OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC UNLESS THE COMMISSION DETERMINES OTHERWISE**~~

Scott and Tony

Update from NMSS per the COM plan. All is on "track". Stephanie had another long night into the wee hours at SONGS on Monday after her 4:00 AM night the other day. As you know, she was also able to prepare for and conduct the onsite May fuel transfer inspection. DNMS is finalizing an award nomination now

Linda is also working with Angel on a short email to let Levin's staff that we actually went on site in May. More to come on that.

Mary

Mary Muessle  
Director, Division of Nuclear Materials Safety  
Region IV

**REGION IV VISION:**

*"Together, we work to foster a culture of high trust that maximizes professional growth and inspires leadership at all levels."*

---

**From:** Snyder, Amy <[Amy.Snyder@nrc.gov](#)>  
**Sent:** Tuesday, May 26, 2020 2:06 PM  
**To:** Maier, Bill <[Bill.Maier@nrc.gov](#)>; Warnick, Greg <[Greg.Warnick@nrc.gov](#)>; Watson, Bruce <[Bruce.Watson@nrc.gov](#)>; Dricks, Victor <[Victor.Dricks@nrc.gov](#)>; McIntyre, David <[David.McIntyre@nrc.gov](#)>; Moreno, Angel <[Angel.Moreno@nrc.gov](#)>; Anderson, Stephanie <[Stephanie.Anderson@nrc.gov](#)>; Olmstead, Joan <[Joan.Olmstead@nrc.gov](#)>; Cuadrado, Leira <[Leira.Cuadrado-Caraballo@nrc.gov](#)>; Morgan-Butler, Kimyata <[Kimyata.Morgan-Butler@nrc.gov](#)>; McKirgan, John <[John.McKirgan@nrc.gov](#)>; Firth, James <[James.Firth@nrc.gov](#)>  
**Cc:** Holahan, Trish <[Patricia.Holahan@nrc.gov](#)>; Howell, Linda <[Linda.Howell@nrc.gov](#)>; Muessle,



Mary <Mary.Muessle@nrc.gov>; Pham, Bo <Bo.Pham@nrc.gov>

**Subject:** FW: SONGS RPV Communications ~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION  
LIMITED TO NRC UNLESS THE COMMISSION DETERMINES OTHERWISE~~

~~**OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC  
UNLESS THE COMMISSION DETERMINES OTHERWISE**~~

RESENT 5-26-20 with update

The shipment safely left SONGS in the very early hours on Monday morning (Started Sunday evening and went into early Monday morning before it left the site). Stephanie Anderson was there in person from the NRC to inspect the sendoff. I believe she is the only inspector so far that has done an inspection at site since the COVID-19 restrictions. Thank you Stephanie for your work!

The movement was slow and steady and safe. It is already safely passed over the bridge in Victorville that has the 3 inch clearance on either side of the load.

There were some onlookers during parts of the route so far- mostly train enthusiasts to see the "Snabel Car," according to the SONGS project lead.

Its north of Barstow about now near the Yrmo Yard and will travel to its final destination over approx the next month and a half.

The Region will be getting weekly updates (at minimum) on its travels.

A

~~**OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC  
UNLESS THE COMMISSION DETERMINES OTHERWISE**~~

HI SONGS Unit I RPV Communication Team,

Thanks to all for your assistance and support on implementing this Communication Plan. Also, thank you for helping me get up to speed as the SONGS PM.

As SONGS Project Manager and Coordinator of Communication Team , here is an update on the SONGS Unit 1 RPV Shipment:

- First note this email is OUO. Please label all of your emails on this subject as noted above similar to how the communication plan is marked. Also please note that, information about the time and date of the shipment is particularly sensitive and should not be shared outside the agency and only with those internally who need to know with the understanding that is OUO-SII.
- Also, as of yesterday, May 14, the Snabel car is completely assembled with loaded Unit I RPV.
- RI has photos of the shipment car. These are licensee photos, so please limit distribution. If you need to distribute or have any questions, please Stephanie Anderson, SONGS Lead Inspector, or Greg Warnick. We informed Stephanie that the photos will be transmitted by Trish to the NMSS front office for awareness. This happened this morning.

UPDATE ON STATUS OF ACTIONS PER THE APPROVED SONGS  
COMMUNICATION PLAN: see updates below in red.

### **SCHEDULE FOR OUTREACH**

The schedule below describes the NRC staff's overall strategy to communicate the RPV shipment to stakeholders and conduct outreach during each phase.

*Step 1: April 16<sup>th</sup> - May 24<sup>th</sup>*



## **Begin Outreach to the State of California**

The NRC staff will begin initial informal outreach with the State of California and other States by working through the RIV RSLO to inform them that the Unit 1 RPV will be shipped on May 25<sup>th</sup>.

**DONE.** As of yesterday, Bill informed me he completed Step 1.

NOTE: Also the licensee informed me that they have informed the California Department of Health of the time and date. Reason: Once it is on the rail up the hill it is no longer on federal property and certain State actions apply. Specifically, the proprietary letter below states: EnergySolutions has been working with the State of California in accordance with the Agreement State requirements as outlined in the Notice of Reciprocal Recognition of License for Use in California as amended on April 20, 2020. Requisite information had been provided to the NRC and to California in accordance with 19 CFR 37.77; and requirement of their license to inform us of this fact. .... the information contained in Condition I 8A of EnergySolutions' Material License has been provided."

[Open ADAMS P8 Document\(San Onofre Nuclear Generating Station - Packaging and Transportation of Unit 1 Reactor Pressure Vessel.\)](#)  
[View ADAMS P8 Properties ML20129J907](#) notifying the NRC of State Involvement.

Stephanie Anderson, Greg Warnick, and Bill Maier were provided this information yesterday because it was just available through document control (SONGS did not provide a courtesy copy in advance). However, SONGS notified us on April 24 that they were notifying CA that day that the RPV is moving onto State lands (i.e., leaving the site for the adjacent railroad spur). Bill Maier (RIV RSLO) was made aware of the status, also, and reached out to the State.

*Step 2: April 16<sup>th</sup> - May 25<sup>th</sup>*

### **RIV Inspection of RPV Loading onto the Train car**

During RIV's planned inspection, if any issues are identified they will notify the NRC project manager, who will ensure that OPA, OCA, and NMSS management are appropriately informed.

As of today, RIV is planning to perform an onsite inspection next week.

It's my understanding that the inspection will consist of the inspection of the shipment. Schnabel car – is it loaded properly and operational, and verify the shipping manifest is correct and dose rates on the package and occupancy areas of the train. **If this is not correct, Stephanie – please clarify for the team.**

I spoke with the Licensee and they **have been treating the information about the shipment day and time as OUO-SRI and would like us to do the same.**

~~[OUO SRI]~~ **Now the shipment of the Unit 1 RPV is scheduled for 10 pm pst on 5/24/2020**  
~~[OUO SRI]~~

*Step 3: May 20<sup>th</sup>*

### **EDO Look Ahead Note**

NRC headquarters staff will generate a weekly look-ahead note to ensure that Senior management is informed of the RPV movement.

I understand that RIV does not plan on sending any OWLA on inspection activities, and I confirmed with Trish that due to the sensitivity as noted above about the date and time of the shipment DUWP will not send another OWLA but Trish will verbally communicate the information at the staff meeting with EDO on early next week.

Note: We did send an OWLA about three weeks ago: see below

NMSS

~~(OUO SIII)~~

On April 30, Southern California Edison (SCE) plans to transport the San Onofre Unit 1 Reactor Pressure Vessel (RPV) using a heavy-haul trailer to a rail spur for loading in preparation for its shipment to Clive, Utah for disposal. Region IV plans to inspect the RPV shipment on May 24, prior to it leaving the area for disposal. NMSS and Region IV have developed a communications plan for ensuring the State of California, Native American tribes, and stakeholders are appropriately informed during the transfer.

If you have any questions, please contact me.

I plan to (b)(6) this afternoon. If you have an urgent question today, please contact me at (b)(6)

Thank you

A



**From:** [Muessle, Mary](#)  
**To:** [Morris, Scott](#); [Veget, Anton](#)  
**Cc:** [Howell, Linda](#)  
**Subject:** FW: SONGS RPV Communications ~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC UNLESS THE COMMISSION DETERMINES OTHERWISE~~  
**Date:** Tuesday, May 26, 2020 2:21:58 PM  
**Attachments:** [SONGS RPV Communications.msg](#)

---

**OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC UNLESS THE COMMISSION DETERMINES OTHERWISE**

---

Scott and Tony

Update from NMSS per the COM plan. All is on "track". Stephanie had another long night into the wee hours at SONGS on Monday after her 4:00 AM night the other day. As you know, she was also able to prepare for an conduct the onsite May fuel transfer inspection. DNMS is finalizing an award nomination now

Linda is also working with Angel on a short email to let Levin's staff that we actually went on site in May. More to come on that.

Mary

Mary Muessle  
Director, Division of Nuclear Materials Safety  
Region IV

**REGION IV VISION:**

*"Together, we work to foster a culture of high trust that maximizes professional growth and inspires leadership at all levels."*

---

**From:** Snyder, Amy <Amy.Snyder@nrc.gov>  
**Sent:** Tuesday, May 26, 2020 2:06 PM  
**To:** Maier, Bill <Bill.Maier@nrc.gov>; Warnick, Greg <Greg.Warnick@nrc.gov>; Watson, Bruce <Bruce.Watson@nrc.gov>; Dricks, Victor <Victor.Dricks@nrc.gov>; McIntyre, David <David.McIntyre@nrc.gov>; Moreno, Angel <Angel.Moreno@nrc.gov>; Anderson, Stephanie <Stephanie.Anderson@nrc.gov>; Olmstead, Joan <Joan.Olmstead@nrc.gov>; Cuadrado, Leira <Leira.Cuadrado-Caraballo@nrc.gov>; Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>; McKirgan, John <John.McKirgan@nrc.gov>; Firth, James <James.Firth@nrc.gov>  
**Cc:** Holahan, Trish <Patricia.Holahan@nrc.gov>; Howell, Linda <Linda.Howell@nrc.gov>; Muessle, Mary <Mary.Muessle@nrc.gov>; Pham, Bo <Bo.Pham@nrc.gov>  
**Subject:** FW: SONGS RPV Communications ~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC UNLESS THE COMMISSION DETERMINES OTHERWISE~~

---

**OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC UNLESS THE COMMISSION DETERMINES OTHERWISE**

---

**RESENT 5-26-20 with update**

The shipment safely left SONGS in the very early hours on Monday morning (Started Sunday evening and went into early Monday morning before it left the site). Stephanie

Anderson was there in person from the NRC to inspect the sendoff. I believe she is the only inspector so far that has done an inspection at site since the COVID-19 restrictions. Thank you Stephanie for your work!

The movement was slow and steady and safe. It is already safely passed over the bridge in Victorville that has the 3 inch clearance on either side of the load.

There were some onlookers during parts of the route so far- mostly train enthusiasts to see the "Snabel Car," according to the SONGS project lead.

Its north of Barstow about now near the Yrmo Yard and will travel to its final destination over approx the next month and a half.

The Region will be getting weekly updates (at minimum) on its travels.

A

~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC  
UNLESS THE COMMISSION DETERMINES OTHERWISE~~

HI SONGS Unit I RPV Communication Team,

Thanks to all for your assistance and support on implementing this Communication Plan. Also, thank you for helping me get up to speed as the SONGS PM.

As SONGS Project Manager and Coordinator of Communication Team , here is an update on the SONGS Unit 1 RPV Shipment:

- First note this **email is OUO. Please label all of your emails on this subject as noted above similar to how the communication plan is marked. Also please note that, information about the time and date of the shipment is particularly sensitive and should not be shared outside the agency and only with those internally who need to know with the understanding that is OUO-SII.**
- Also, as of yesterday, May 14, the Snabel car is completely assembled with loaded Unit I RPV.
- RI has photos of the shipment car. These are licensee photos, so please limit distribution. If you need to distribute or have any questions, please Stephanie Anderson, SONGS Lead Inspector, or Greg Warnick. We informed Stephanie that the photos will be transmitted by Trish to the NMSS front office for awareness. This happened this morning.
- UPDATE ON STATUS OF ACTIONS PER THE APPROVED SONGS COMMUNICATION PLAN: see updates below in red.

### **SCHEDULE FOR OUTREACH**

The schedule below describes the NRC staff's overall strategy to communicate the RPV shipment to stakeholders and conduct outreach during each phase.

*Step 1: April 16<sup>th</sup> - May 24<sup>th</sup>*



### **Begin Outreach to the State of California**

The NRC staff will begin initial informal outreach with the State of California and other States by working through the RIV RSLO to inform them that the Unit 1 RPV will be shipped on May 25<sup>th</sup>.

**DONE.** As of yesterday, Bill informed me he completed Step 1.

NOTE: Also the licensee informed me that they have informed the California Department of Health of the time and date. Reason: Once it is on the rail up the hill it is no longer on federal property and certain State actions apply. Specifically, the proprietary letter below states: EnergySolutions has been working with the State of California in accordance with the Agreement State requirements as outlined in the Notice of Reciprocal Recognition of License for Use in California as amended on April 20, 2020. Requisite information had been provided to the NRC and to California in accordance with 19 CFR 37.77; and requirement of their license to inform us of this fact. .... the information contained in Condition I 8A of EnergySolutions' Material License has been provided."

[Open ADAMS P8 Document\(San Onofre Nuclear Generating Station - Packaging and Transportation of Unit 1 Reactor Pressure Vessel.\)](#)  
[View ADAMS P8 Properties ML20129J907](#) notifying the NRC of State Involvement.

Stephanie Anderson, Greg Warnick, and Bill Maier were provided this information yesterday because it was just available through document control (SONGS did not provide a courtesy copy in advance). However, SONGS notified us on April 24 that they were notifying CA that day that the RPV is moving onto State lands (i.e., leaving the site for the adjacent railroad spur). Bill Maier (RIV RSLO) was made aware of the status, also, and reached out to the State.

*Step 2: April 16<sup>th</sup> - May 25<sup>th</sup>*

### **RIV Inspection of RPV Loading onto the Train car**

During RIV's planned inspection, if any issues are identified they will notify the NRC project manager, who will ensure that OPA, OCA, and NMSS management are appropriately informed.

As of today, RIV is planning to perform an onsite inspection next week.

It's my understanding that the inspection will consist of the inspection of the shipment. Schnabel car – is it loaded properly and operational, and verify the shipping manifest is correct and dose rates on the package and occupancy areas of the train. **If this is not correct, Stephanie – please clarify for the team.**

I spoke with the Licensee and they **have been treating the information about the shipment day and time as OUO-SRI and would like us to do the same.**

~~OUO SRI~~ Now the shipment of the Unit 1 RPV is scheduled for 10 pm pst on 5/24/2020  
~~OUO SRI~~

*Step 3: May 20<sup>th</sup>*

### **EDO Look Ahead Note**

NRC headquarters staff will generate a weekly look-ahead note to ensure that Senior management is informed of the RPV movement.

I understand that RIV does not plan on sending any OWLA on inspection activities, and I confirmed with Trish that due to the sensitivity as noted above about the date and time of the shipment DUWP will not send another OWLA but Trish will verbally communicate the information at the staff meeting with EDO on early next week.

Note: We did send an OWLA about three weeks ago: see below

NMSS

~~(OUO - SII)~~

On April 30, Southern California Edison (SCE) plans to transport the San Onofre Unit 1 Reactor Pressure Vessel (RPV) using a heavy-haul trailer to a rail spur for loading in preparation for its shipment to Clive, Utah for disposal. Region IV plans to inspect the RPV shipment on May 24, prior to it leaving the area for disposal. NMSS and Region IV have developed a communications plan for ensuring the State of California, Native American tribes, and stakeholders are appropriately informed during the transfer.

If you have any questions, please contact me.

I plan to (b)(6) this afternoon. If you have an urgent question today, please contact me at (b)(6)

Thank you

A

**From:** Chang, Richard  
**Sent:** Wed, 22 Apr 2020 14:16:45 +0000  
**To:** Maier, Bill;Firth, James;Warnick, Greg;Watson, Bruce;Snyder, Amy;Dricks, Victor;McIntyre, David;Moreno, Angel;Anderson, Stephanie;Olmstead, Joan  
**Subject:** SONGS RPV Communications  
**Attachments:** SONGS Communication Plan - RPV Movement and COVID19 Final (2).pdf, SONGS Communication Plan - RPV Movement and COVID19 Final Amy Snyder Comments.docx

All,

Attached is: 1) A PDF with the approved Comm plan by Mary and Trish; and 2) A word document with an updated Comm plan that reflects a change in the RPV shipment date (May 24<sup>th</sup> now) as well as comments from Amy Snyder incorporated.

A few other updates for the group:

- I recently accepted a promotion within NRC, and will no longer be PM for SONGS. Amy Snyder is the incoming SONGS PM (effective after next week).
- SONGS will be notifying the State of CA tomorrow that the RPV will be going on State lands for loading. Bill, can you give the State a courtesy FYI?
- I am still awaiting an itinerary from SONGS, for the tribal notifications.

Thanks,  
Richard



## **COMMUNICATION PLAN**

### **U.S. NUCLEAR REGULATORY COMMISSION'S (NRC'S) COMMUNICATIONS PLAN FOR THE SHIPMENT OF THE SAN ONOFRE NUCLEAR GENERATING STATION'S (SONGS') UNIT 1 REACTOR PRESSURE VESSEL (RPV) AND ONGOING ACTIONS AT SONGS DURING THE COVID-19 PUBLIC HEALTH EMERGENCY (PHE)**

APRIL 20, 2020

#### **KEY MESSAGES**

- The SONGS Unit 1 RPV will be moved to the rail spur beginning on April 23, 2020 and is expected to be loaded onto a rail car on May 21, 2020.
- Shipping of the RPV by rail will begin on May 25, 2020.
- NRC staff currently plan to be onsite to inspect the loaded SONGS Unit 1 RPV on the rail car to ensure public health and safety is maintained.
- Unit 1 stopped operations in 1992. The RPV is Class A low-level radioactive waste and is being transported for permanent disposal in a licensed low-level radioactive waste disposal facility in Clive, Utah.
- The RPV is packaged to meet Department of Transportation and NRC requirements and is well below the required dose rates for transportation and presents no public health and safety issues.
- NRC is sensitive to the COVID-19 issues potentially affecting NRC licensees. NRC Project Managers and Regional Inspectors are communicating frequently with licensees, including SONGS management, to gauge the COVID-19 safety protocols that are being taken to ensure safety and security is being maintained.
- SONGS has no cases of COVID-19 and has instituted measures to ensure the protection of their staff.

#### **GOALS**

This communication plan describes the background, key messages, and tools that the NRC staff will use to communicate with internal and external stakeholders regarding the SONGS' planned shipment of their Unit 1 RPV to the low-level waste disposal site in Clive, Utah and ongoing actions at SONGS during the COVID-19 PHE.

#### **BACKGROUND**

SONGS, Units 1, 2 and 3, are decommissioning nuclear power reactor units located in San Diego County, California, approximately 62 miles southeast of Los Angeles, and approximately 51 miles northwest of San Diego, on an 84-acre site located entirely within the Camp Pendleton Marine Corps Base. The licensee, Southern California Edison (SCE), is the holder of Facility Operating License Nos. DPR-13 (Unit 1), NPF-10 (Unit 2) and NPF-15 (Unit 3), which were

issued pursuant to the Atomic Energy Act of 1954, as amended, and Part 50, "Domestic Licensing of Production and Utilization Facilities," of 10 CFR.

SONGS, Unit 1, was granted its provisional operating license by the NRC on January 1, 1968 (ADAMS Accession No. ML13309A138) and ceased operation on November 30, 1992 (ADAMS Accession No. ML13319B040). The licensee completed defueling on March 6, 1993 (ADAMS Accession No. ML13319B055), and maintained the unit in deferred decontamination, or SAFSTOR, until June 1999, when it initiated active decommissioning and dismantlement, or DECON (ADAMS Accession No. ML13319B111). On December 28, 1993 (ADAMS Accession No. ML13319B059), the NRC approved the Permanently Defueled Technical Specifications for SONGS, Unit 1. SCE submitted the proposed Decommissioning Plan for SONGS, Unit 1, on November 3, 1994 (ADAMS Accession No. ML13319B073). As a result of the 1996 revision to the regulations in 10 CFR 50.82, "Termination of license," the NRC replaced the requirement for a decommissioning plan with a requirement for a Post Shutdown Decommissioning Activities Report (PSDAR). On August 28, 1996, the SONGS 1 Decommissioning Plan became the SONGS 1 PSDAR (61 FR 67079; December 19, 1996). On December 15, 1998 (ADAMS Accession No. ML13184A353), SCE submitted an update to the PSDAR, as required by 10 CFR 50.82(a)(7), in order to begin planning for the dismantlement and decommissioning of SONGS, Unit 1. Dismantlement of SONGS, Unit 1, is essentially complete and most of the structures and equipment have been removed and sent to a nuclear waste disposal facility. The RPV is the last Unit 1 major radioactive component remaining on site. Due to radioactive decay since the plant shutdown in 1992, the RPV is Class A waste, the lowest of the 3 classifications of low-level radioactive waste.

The SONGS Unit 1 RPV will be moved to the rail spur beginning on April 23, 2020 and is expected to be loaded onto a rail car on May 21, 2020. Shipping of the RPV by rail will begin on May 25, 2020. The RPV will be shipped by rail to Apex, Nevada, where it will be loaded onto a truck. The RPV will be disposed of at Energy Solutions in Clive, Utah as Class A low-level waste. NRC staff intend to be onsite to inspect activities associated with the loaded rail car and shipment execution.

Regarding the COVID-19 PHE, SCE has recently updated their Pandemic Response Protocol. Items within the SCE Pandemic Response Protocol include: 1) social distancing; 2) enhanced work planning to maintain distance between employees, which includes SCE review of contractor procedures to ensure social distancing during work activities; 3) protective measures for SCE staff and contractors (which includes telework for non-essential employees); and 4) limiting the introduction of new contractors to the site. Additionally, the Pandemic Response Protocol limits the on-site employees to those considered essential for ongoing work (which includes fuel movement, asbestos abatement, and preparing the SONGS Unit 1 RPV for disposal). Other protocols implemented by SCE include: 1) a Health Screening Questionnaire for staff at the start of each work shift to screen for employees at risk for having COVID-19 (this is taken prior to them entering the site); 2) as a precautionary measure, a group of security officers are staying at a local hotel, segregated from the plant, to ensure that they are available to maintain minimal security staffing; and 3) a Travel Questionnaire for all SONGS workers and their household members to evaluate for COVID-19 risk prior to, and after, the travel taking place. Congressional staffers have asked questions regarding SONGS' COVID-19 actions and remain interested.

## AUDIENCE

The intended audience for this communication plan includes the following internal and external stakeholders:

### Internal Stakeholders

- Office of Public Affairs (OPA)
- Office of Nuclear Material Safety and Safeguards (NMSS)
  - o Division of Decommissioning, Uranium Recovery and Waste Programs (DUWP)
  - o Division of Material Safety, State, and Tribal Programs (MSST)
  - o Division of Fuel Management (DFM)
- Region IV
- Office of Congressional Affairs
- Office of the Executive Director for Operations

### External Stakeholders

- Public interest groups
- The general public
- Agreement States, and State Liaison Officers for states where the RPV will travel through
- NRC and Agreement State licensees

## COMMUNICATION TEAM

The primary responsibility of the communication team is to ensure that a consistent, accurate, and timely message is conveyed to all stakeholders. The team consists of the following personnel, who will be involved as appropriate. The points of contact and coordinator for this team is Richard Chang.

| TEAM MEMBER    | POSITION                                              | ORGANIZATION | PHONE          |
|----------------|-------------------------------------------------------|--------------|----------------|
| Bruce Watson   | Branch Chief                                          | NMSS/DUWP    | (301) 415-6221 |
| Richard Chang  | Project Manager and Coordinator of Communication Team | NMSS/DUWP    | (301) 415-5888 |
| David McIntyre | Public Affairs Officer                                | OPA          | (301) 415-8206 |
| Victor Dricks  | Public Affairs Officer                                | RIV          | (817) 200-1128 |

~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC  
UNLESS THE COMMISSION DETERMINES OTHERWISE~~

|                       |                                       |           |                |
|-----------------------|---------------------------------------|-----------|----------------|
| Bill Maier            | Regional State Liaison Officer (RSLO) | RIV       | (817) 200-1267 |
| David Alley           | Branch Chief                          | NMSS/MSST | (301) 415-2178 |
| James Firth           | Project Manager                       | NMSS/MSST | (301) 415-6628 |
| Joan Olmstead         | Attorney                              | OGC       | (301) 287-9106 |
| Greg Warnick          | Branch Chief                          | Region IV | (817) 200-1249 |
| John McKirgan         | Branch Chief                          | DFM/STLB  | (301) 415-5722 |
| Leira Cuadrado        | Acting Branch Chief                   | NMSS/MSST | (301) 415-0324 |
| Stephanie Anderson    | Health Physicist                      | Region IV | (817) 200-1213 |
| Kimyata Morgan-Butler | Executive Technical Assistant         | OEDO      | (301) 415-0733 |
| Angel Moreno          | Congressional Affairs Officer         | OCA       | (301) 415-1697 |

## COMMUNICATION TOOLS

The following tools will be used to communicate with stakeholders:

- This communication plan will be posted on the agency's internal Web site and placed in ADAMS (non-public).
- When finalized, an email with the ADAMS Accession Number for this communication plan will be distributed to the appropriate NMSS staff and managers, as well as to other NRC offices, as appropriate. Note that this plan should be updated periodically as new information becomes available or as NRC policies change.
- The coordinator of the communication team will work with OPA to involve members of the communication team, as appropriate.
- Status meetings with the Tribes, State, and local governments, as necessary (non-public).
- NRC management briefings.

## COMMUNICATION CHALLENGES

- Communicating with stakeholders during the COVID-19 public health emergency.

## SCHEDULE FOR OUTREACH

The schedule below describes the NRC staff's overall strategy to communicate the RPV shipment to stakeholders and conduct outreach during each phase.

*Step 1: April 16<sup>th</sup> - May 24<sup>th</sup>*

~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC  
UNLESS THE COMMISSION DETERMINES OTHERWISE~~



**Begin Outreach to the State of California**

The NRC staff will begin initial informal outreach with the State of California and other States by working through the RIV RSLO to inform them that the Unit 1 RPV will be shipped on May 25<sup>th</sup>.

*Step 2: April 16<sup>th</sup> - May 25<sup>h</sup>*

**RIV Inspection of RPV Loading onto the Train car**

During RIV's planned inspection, if any issues are identified they will notify the NRC project manager, who will ensure that OPA, OCA, and NMSS management are appropriately informed.

*Step 3: May 20<sup>th</sup>*

**EDO Look Ahead Note**

NRC headquarters staff will generate a weekly look-ahead note to ensure that Senior management is informed of the RPV movement.

**EVALUATION OF COMMUNICATION PLAN EFFECTIVENESS**

The staff will evaluate the effectiveness of the communication plan on a periodic basis to ensure its goals are achieved.

## **QUESTIONS AND ANSWERS**

### **How much does the RPV weigh?**

471 Tons.

### **What is the volume of waste?**

5,475 cubic feet.

### **Why are they moving the RPV now in the middle of a national pandemic?**

The route that the railcar needs to take has a tunnel through a bridge which necessitated that the RPV be shipped during low-commuter and low-freight volume windows. The licensee only has a limited window for their RPV to be shipped for disposal prior to this tunnel becoming busy during holidays.

### **What is the clearance between the RPV and the Victorville bridge in California?**

3 inches from the widest part of the container.

### **What is the NRC's role in this? Did we sign off on their plan to move the RPV now?**

NRC staff has previously reviewed the SONGS Unit 1 post-shutdown decommissioning activities report (PSDAR) and determined that it meets NRC regulatory requirements. The licensee has leeway on how to proceed with the disposal of low-level waste.

### **Will NRC be on hand when the RPV begins moving or during its journey?**

Yes, NRC inspectors plan to be onsite prior to the RPV being shipped to ensure that the work proceeds safely. NRC inspectors will NOT accompany the reactor pressure vessel while in transit to the disposal facility.

### **What is the level of radioactive contamination from the RPV at this point?**

Currently, the Reactor Pressure Vessel's radiation levels have decayed enough to be considered as Class A Low-Level Waste. The calculated dose rate at 3 meters from the unshielded reactor vessel is 35 mrem/hr and the licensee will have controls and shielding in place to ensure that the NRC's public dose limit is not exceeded. NRC's public dose limit is 100 mrem/yr. SONG's decommissioning contractor, SONGS Decommissioning Solutions will be notifying the States of this shipment.

### **What security is being employed to accompany this shipment?**

The shipment will be accompanied by security 24/7 while it is being loaded and in transit.

### **What is the estimated duration of the journey from the time it leaves the SONGS site until it arrives at Clive, Utah?**

The shipment of the Unit 1 RPV on the train is expected to begin on May 25<sup>th</sup> for a total of 6 days on the rail. Once the RPV reaches Apex, NV, there will be a pause before it will be transported to Clive, Utah (on the road for 10 days) for final disposal.

### **What states is the shipment planned to pass through?**

~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC  
UNLESS THE COMMISSION DETERMINES OTHERWISE~~

California, Nevada, and Utah.

**Does the shipment go through Las Vegas?**

Yes, in early June.

**Q: Did SONGS try to dispose of their Unit 1 RPV in the past?**

The licensee originally planned to ship the Unit 1 reactor vessel to Barnwell, South Carolina for permanent storage. The licensee considered the options of shipping by rail, barge via the Panama Canal, and barge via the Cape Horn, South America. All three plans were met with significant public resistance.

**How is NRC staff ensuring that public health and safety is being maintained during the COVID-19 PHE?**

NRC is sensitive to the COVID-19 issues potentially affecting NRC licensees. NRC Project Managers and Regional Inspectors are communicating frequently with licensees, including SONGS management, to gauge the COVID-19 safety protocols that are being taken to ensure safety and security is being maintained.

**What has SONGS implemented to address the COVID-19 PHE?**

Items within the SCE Pandemic Response Protocol include: 1) social distancing; 2) enhanced work planning to maintain distance between employees, which includes SCE review of contractor procedures to ensure social distancing during work activities; 3) protective measures for SCE staff and contractors (which includes telework for non-essential employees); and 4) limiting the introduction of new contractors to the site.

Additionally, the Pandemic Response Protocol limits the on-site employees to those considered essential for ongoing work (which includes fuel movement, asbestos abatement, and preparing the SONGS Unit 1 Reactor Pressure Vessel for disposal).

Other protocols implemented by SCE include: 1) A Health Screening Questionnaire for staff at the start of each work shift to screen for employees at risk for having COVID-19 (this is taken prior to them entering the site); 2) As a precautionary measure, a group of security officers are staying at a local hotel, segregated from the plant, to ensure that they are available to maintain minimal security staffing; and 3) A Travel Questionnaire for all SONGS workers and their household members to evaluate for COVID-19 risk prior to, and after, the travel taking place.

## **COMMUNICATION PLAN**

### **U.S. NUCLEAR REGULATORY COMMISSION'S (NRC'S) COMMUNICATIONS PLAN FOR THE SHIPMENT OF THE SAN ONOFRE NUCLEAR GENERATING STATION'S (SONGS') UNIT 1 REACTOR PRESSURE VESSEL (RPV) AND ONGOING ACTIONS AT SONGS DURING THE COVID-19 PUBLIC HEALTH EMERGENCY (PHE)**

APRIL 22, 2020

#### **KEY MESSAGES**

- The SONGS Unit 1 RPV will be moved to the rail spur beginning on April 23, 2020, and is expected to be loaded onto a rail car on May 21, 2020.
- Shipping of the RPV by rail will begin on May 24, 2020.
- NRC staff currently plan to be onsite to inspect the loaded SONGS Unit 1 RPV on the rail car to ensure public health and safety is maintained.
- Unit 1 stopped operations in 1992. The RPV is Class A low-level radioactive waste and is being transported for permanent disposal in a licensed low-level radioactive waste disposal facility in Clive, Utah.
- The RPV is packaged to meet Department of Transportation and NRC requirements and is well below the required dose rates for transportation and presents no public health and safety issues.
- NRC is sensitive to the COVID-19 issues potentially affecting NRC licensees. NRC Project Managers and Regional Inspectors are communicating frequently with licensees, including SONGS management, to ensure the licensee is complying with COVID-19 PHE safety protocols to maintain safety and security.
- SONGS has no cases of COVID-19 currently, and has instituted measures to ensure the protection of its staff and public.

#### **GOALS**

This communication plan describes the background, key messages, and tools that the NRC staff will use to communicate with internal and external stakeholders regarding the SONGS' planned shipment of the Unit 1 RPV to the low-level waste disposal site in Clive, Utah and ongoing actions at SONGS during the COVID-19 PHE. The goals of this plan is to clearly communicate for common understanding the key messages focused on the steps in the Unit 1 RPV movement from the SONGS site to the waste disposal site, its safety status, the actions that the licensee is taking to ensure public health and safety, including its COVID-19 PHE protocols, and the NRC oversight throughout the process.

#### **BACKGROUND**

SONGS, Units 1, 2 and 3, are decommissioning nuclear power reactor units located in San Diego County, California, approximately 62 miles southeast of Los Angeles, and approximately 51 miles northwest of San Diego, on an 84-acre site located entirely within the Camp Pendleton Marine Corps Base. The licensee, Southern California Edison (SCE), is the holder of Facility Operating License Nos. DPR-13 (Unit 1), NPF-10 (Unit 2) and NPF-15 (Unit 3), which were issued pursuant to the Atomic Energy Act of 1954, as amended, and Part 50, "Domestic Licensing of Production and Utilization Facilities," of 10 CFR.

SONGS, Unit 1, was granted its provisional operating license by the NRC on January 1, 1968, (ADAMS Accession No. ML13309A138) and ceased operation on November 30, 1992 (ADAMS Accession No. ML13319B040). The licensee completed defueling of Unit 1 on March 6, 1993 (ADAMS Accession No. ML13319B055), and maintained the unit in deferred decontamination, or SAFSTOR, until June 1999, when it initiated active decommissioning and dismantlement, or DECON (ADAMS Accession No. ML13319B111). On December 28, 1993 (ADAMS Accession No. ML13319B059), the NRC approved the Permanently Defueled Technical Specifications for SONGS, Unit 1. SCE submitted the proposed Decommissioning Plan for SONGS, Unit 1, on November 3, 1994 (ADAMS Accession No. ML13319B073). As a result of the 1996 revision to the regulations in 10 CFR 50.82, "Termination of license," the NRC replaced the requirement for a decommissioning plan with a requirement for a Post Shutdown Decommissioning Activities Report (PSDAR). On August 28, 1996, the SONGS 1 Decommissioning Plan became the SONGS 1 PSDAR (61 FR 67079; December 19, 1996). On December 15, 1998 (ADAMS Accession No. ML13184A353), SCE submitted an update to the PSDAR, as required by 10 CFR 50.82(a)(7), in order to begin planning for the dismantlement and decommissioning of SONGS, Unit 1. Dismantlement of SONGS, Unit 1, is essentially complete and most of the structures and equipment have been removed and sent to a nuclear waste disposal facility. The RPV is the last Unit 1 major radioactive component remaining on site. Due to radioactive decay since the plant shutdown in 1992, the RPV is Class A waste, the lowest of the three classifications of low-level radioactive waste.

The SONGS Unit 1 RPV will be moved to the rail spur beginning on April 23, 2020, and is expected to be loaded onto a rail car on May 21, 2020. Shipping of the RPV by rail will begin on May 24, 2020. The RPV will be shipped by rail to Apex, Nevada, where it will be loaded onto a truck. The RPV will be disposed of at Energy Solutions in Clive, Utah as Class A low-level waste. NRC staff intend to be onsite to inspect activities associated with the loaded rail car and shipment execution.

Regarding the COVID-19 PHE, SCE has recently updated its Pandemic Response Protocol. Items within the SCE Pandemic Response Protocol include: 1) social distancing; 2) enhanced work planning to maintain distance between employees, which includes SCE review of contractor procedures to ensure social distancing during work activities; 3) protective measures for SCE staff and contractors (which includes telework for non-essential employees); and 4) limiting the introduction of new contractors to the site. Additionally, the Pandemic Response Protocol limits the on-site employees to those considered essential for ongoing work (which includes fuel movement, asbestos abatement, and preparing the SONGS Unit 1 RPV for disposal). Other protocols implemented by SCE include: 1) a Health Screening Questionnaire for staff at the start of each work shift to screen for employees at risk for having COVID-19 (this is taken prior to them entering the site); 2) as a precautionary measure, a group of security officers are staying at a local hotel, segregated from the plant, to ensure that they are available to maintain minimal security staffing; and 3) a Travel Questionnaire for all SONGS workers and their household members to evaluate for COVID-19 risk prior to, and after, the travel taking

place. Congressional staffers have asked questions regarding SONGS' COVID-19 actions and remain interested.

## **AUDIENCE**

The intended audience for this communication plan includes the following internal and external stakeholders:

### Internal Stakeholders

- Office of Public Affairs (OPA)
- Office of Nuclear Material Safety and Safeguards (NMSS)
  - o Division of Decommissioning, Uranium Recovery and Waste Programs (DUWP)
  - o Division of Material Safety, State, and Tribal Programs (MSST)
  - o Division of Fuel Management (DFM)
- Region IV
- Office of Congressional Affairs
- Office of the Executive Director for Operations

### External Stakeholders

- Public interest groups
- The general public
- Agreement States, and State Liaison Officers for states where the RPV will travel through
- NRC and Agreement State licensees

## **COMMUNICATION TEAM**

The primary responsibility of the communication team is to ensure that a consistent, accurate, and timely message is conveyed to all stakeholders. The team consists of the following personnel, who will be involved as appropriate. The points of contact and coordinator for this team is Richard Chang/Amy Snyder.

| TEAM MEMBER              | POSITION                                              | ORGANIZATION | PHONE          |
|--------------------------|-------------------------------------------------------|--------------|----------------|
| Bruce Watson             | Branch Chief                                          | NMSS/DUWP    | (301) 415-6221 |
| Richard Chang/Amy Snyder | Project Manager and Coordinator of Communication Team | NMSS/DUWP    | (301) 415-5888 |

~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC  
UNLESS THE COMMISSION DETERMINES OTHERWISE~~

|                                                               |                                       |           |                |
|---------------------------------------------------------------|---------------------------------------|-----------|----------------|
| David McIntyre                                                | Public Affairs Officer                | OPA       | (301) 415-8206 |
| Victor Dricks                                                 | Public Affairs Officer                | RIV       | (817) 200-1128 |
| Bill Maier                                                    | Regional State Liaison Officer (RSLO) | RIV       | (817) 200-1267 |
| David Alley                                                   | Branch Chief                          | NMSS/MSST | (301) 415-2178 |
| James Firth                                                   | Project Manager                       | NMSS/MSST | (301) 415-6628 |
| Joan Olmstead                                                 | Attorney                              | OGC       | (301) 287-9106 |
| Greg Warnick                                                  | Branch Chief                          | Region IV | (817) 200-1249 |
| John McKirgan (due to concerns with ongoing movement of fuel) | Branch Chief                          | DFM/STLB  | (301) 415-5722 |
| Leira Cuadrado                                                | Acting Branch Chief                   | NMSS/MSST | (301) 415-0324 |
| Stephanie Anderson                                            | Health Physicist                      | Region IV | (817) 200-1213 |
| Kimyata Morgan-Butler                                         | Executive Technical Assistant         | OEDO      | (301) 415-0733 |
| Angel Moreno                                                  | Congressional Affairs Officer         | OCA       | (301) 415-1697 |

## COMMUNICATION TOOLS

The following tools will be used to communicate with stakeholders:

- This communication plan will be posted on the agency's internal Web site and placed in Agencywide Documents Access and Management System (ADAMS) (non-public).
- When finalized, an email with the ADAMS Accession Number for this communication plan will be distributed to the appropriate NMSS staff and managers, as well as to other NRC offices, as appropriate. Note that this plan should be updated periodically as new information becomes available or as NRC policies change (completed 4/20).
- The coordinator for this communication team will work with OPA to involve members of the communication team, as appropriate.
- Status meetings with the Tribes, State, and local governments, as necessary (non-public).
- NRC management briefings.
- OEDO Look Ahead.
- Responses to stakeholder questions (written or verbal) should come from OPA with Communication Team Coordination.

~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC  
UNLESS THE COMMISSION DETERMINES OTHERWISE~~



## COMMUNICATION CHALLENGES

- Communicating with stakeholders during the COVID-19 PHE. The availability of personnel and coordination time may be impacted due to COVID-19 protocols.

## SCHEDULE FOR OUTREACH

The schedule below describes the NRC staff's overall strategy to communicate to stakeholders regarding information about the RPV shipment and conduct outreach during each step of the disposal.

*Step 1: April 16<sup>th</sup> - May 24<sup>th</sup>, Preparation for Loading on Rail Car*

### **Begin Outreach to the State of California**

The NRC staff will begin initial informal outreach, working through the RIV RSLO and MSST staff, with the State of California and other States and Tribes by to inform them that the Unit 1 RPV is planned to be shipped on May 24<sup>th</sup>.

*Step 2: April 16<sup>th</sup> - May 24<sup>th</sup>, NRC Inspection Activities*

### **RIV Inspection of RPV Loading onto the On-Site Rail Car**

During RIV's planned on-site inspection, if any issues are identified by the NRC inspectors, they will notify the NRC project manager, who will ensure that OPA, OCA, and NMSS management are informed about the potential violation. If no issues are identified, the inspectors will notify the NMSS project manager of the status, who will provide a status update to the communication team.

*Step 3: May 20<sup>th</sup>, Internal Written Communication*

### **EDO Look Ahead Note**

NRC headquarters staff (PM) will generate a weekly look-ahead note to ensure that Senior management in the Office of the Executive Director for Operations (EDO) is informed of the planned RPV movement.

### **RPV Waste Transportation and Arrival at Waste Disposal Facility**

*Step 4: After May 24 Transit and Arrival*

The NMSS Project Manager will keep in contact with the licensee and ask about the status of the transit and arrival of the RPV waste package to the disposal site and will keep the communication team apprised of the status.

## EVALUATION OF COMMUNICATION PLAN EFFECTIVENESS

The staff will evaluate the effectiveness of the communication plan on a periodic basis to ensure its goals are achieved.

~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC  
UNLESS THE COMMISSION DETERMINES OTHERWISE~~

## QUESTIONS AND ANSWERS

### How much does the Unit I RPV weigh?

471 Tons.

### What is the volume of waste?

5,475 cubic feet. This is approximately equal in size to a large truck and trailer.

### Why are they moving the RPV now in the middle of a national pandemic?

The route that the railcar needs to take has a tunnel through a bridge which necessitated that the RPV be shipped during low-commuter and low-freight volume windows. The licensee only has a limited window for the Unit I RPV to be shipped for disposal prior to this tunnel becoming busy during holidays.

### What is the clearance between the Unit I RPV and the Victorville bridge in California?

3 inches from the widest part of the container. The Unit I RPV container consists of the reactor pressure vessel (filled with concrete) and shielding.

### What is the NRC's role in this? Did NRC sign off on the Licensee's plan to move the RPV now?

NRC staff has previously reviewed the SONGS Unit 1 post-shutdown decommissioning activities report (PSDAR) and determined that it meets NRC regulatory requirements. The licensee has leeway on how to proceed with the disposal of low-level waste.

### Will NRC be on hand when the RPV begins moving or during its journey?

Yes, NRC inspectors plan to be onsite prior to the Unit I RPV being shipped to ensure that the work proceeds safely. NRC inspectors will NOT accompany the reactor pressure vessel while in transit to the disposal facility.

### What is the level of radioactive contamination from the RPV at this point?

Currently, the Reactor Pressure Vessel's radiation levels have decayed enough so that the Unit 1 RPV waste shipment is able to be designated as a Class A Low-Level Waste. The calculated dose rate at 3 meters from the unshielded reactor vessel is 35 mrem/hr and the licensee will have controls and shielding in place to ensure that the NRC's public dose limit is not exceeded. NRC's public dose limit is 100 mrem/yr. A member of the public would need to stand at 3 meters from the unshielded reactor pressure vessel in order to exceed this dose; however, the RPV shipment has shielding, and security would prevent this from occurring. The SONG's decommissioning contractor, SONGS Decommissioning Solutions, will be notifying the States of this waste shipment.

### What security is being employed to accompany this shipment?

The waste shipment will be accompanied by security 24/7 while it is being loaded and in transit. Most LLW shipments typically do not have security, and the security staff will be unarmed. Security is required under 10 CFR 37.

~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC  
UNLESS THE COMMISSION DETERMINES OTHERWISE~~

**What is the estimated duration of the journey from the time it leaves the SONGS site until it arrives at Clive, Utah?**

The shipment of the Unit 1 RPV on the train is expected to begin on May 24<sup>th</sup> for an estimated total of 6 days on the rail. Once the Unit 1 RPV reaches Apex, NV, there will be a pause because it will be off loaded directly to a truck for road transit to Clive, Utah for final disposal. Road transit will occur on a public road and is estimated to take 10 days. The Unit 1 RPV waste shipment is anticipated to be at the final disposal site by approximately July 1.

**What states is the shipment planned to pass through?**

California, Nevada, and Utah.

**Does the shipment go through Las Vegas?**

Yes, in early June.

**Q: Did SONGS try to dispose of its Unit 1 RPV in the past?**

The licensee originally planned to ship the Unit 1 reactor vessel to Barnwell, South Carolina for permanent storage. The licensee considered the options of shipping by rail, barge via the Panama Canal, and barge via the Cape Horn, South America. All three plans were met with significant public resistance. This current plan to ship the RPV does not involve a barge, and issues associated with a barge do not apply. The previous rail plan issues were associated with geographic public concerns.

**How is NRC staff ensuring that public health and safety is being maintained during the COVID-19 PHE?**

NRC is sensitive to the COVID-19 PHE issues potentially affecting NRC licensees. NRC Project Managers and Regional Inspectors are communicating frequently with licensees, including SONGS management, to gauge the effectiveness of maintaining their license requirements and the COVID-19 PHE safety protocols being implemented.

**What has SONGS implemented to address the COVID-19 PHE?**

Items within the SCE Pandemic Response Protocol, which the licensee states is compliant with State orders, include: 1) social distancing; 2) enhanced work planning to maintain distance between employees, which includes SCE review of contractor procedures to ensure social distancing during work activities; 3) protective measures for SCE staff and contractors (which includes telework for non-essential employees); and 4) limiting the introduction of new contractors to the site.

Additionally, the Pandemic Response Protocol limits the on-site employees to those considered essential for ongoing work (which includes fuel movement, asbestos abatement, and preparing the SONGS Unit 1 Reactor Pressure Vessel for disposal).

Other protocols implemented by SCE include: 1) A Health Screening Questionnaire for staff at the start of each work shift to screen for employees and contractors at risk for having COVID-19 (this is taken prior to them entering the site); 2) As a precautionary measure, a group of security officers are staying at a local hotel, segregated from the plant, to ensure that they are available

to maintain minimal security staffing; and 3) A Travel Questionnaire for all SONGS workers and contractors and their household members to evaluate for COVID-19 risk prior to, and after, the travel taking place.

~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC  
UNLESS THE COMMISSION DETERMINES OTHERWISE~~

**From:** [Muessle, Mary](#)  
**To:** [Morris, Scott](#); [Veget, Anton](#)  
**Subject:** FW: SONGS RPV Communications ~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC UNLESS THE COMMISSION DETERMINES OTHERWISE~~  
**Date:** Friday, May 15, 2020 10:32:10 AM  
**Attachments:** [SONGS RPV Communications.msx](#)

Attachment same to May 26, 2020 email.

Awareness and please note sensitivity.

Mary Muessle  
Director, Division of Nuclear Materials Safety  
Region IV

**REGION IV VISION:**

*"Together, we work to foster a culture of high trust that maximizes professional growth and inspires leadership at all levels."*

**From:** Snyder, Amy <Amy.Snyder@nrc.gov>  
**Sent:** Friday, May 15, 2020 9:57 AM  
**To:** Maier, Bill <Bill.Maier@nrc.gov>; Warnick, Greg <Greg.Warnick@nrc.gov>; Watson, Bruce <Bruce.Watson@nrc.gov>; Dricks, Victor <Victor.Dricks@nrc.gov>; McIntyre, David <David.McIntyre@nrc.gov>; Moreno, Angel <Angel.Moreno@nrc.gov>; Anderson, Stephanie <Stephanie.Anderson@nrc.gov>; Olmstead, Joan <Joan.Olmstead@nrc.gov>; Cuadrado, Leira <Leira.Cuadrado-Caraballo@nrc.gov>; Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>; McKirgan, John <John.McKirgan@nrc.gov>; Firth, James <James.Firth@nrc.gov>  
**Cc:** Holahan, Trish <Patricia.Holahan@nrc.gov>; Howell, Linda <Linda.Howell@nrc.gov>; Muessle, Mary <Mary.Muessle@nrc.gov>; Pham, Bo <Bo.Pham@nrc.gov>  
**Subject:** FW: SONGS RPV Communications ~~OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC UNLESS THE COMMISSION DETERMINES OTHERWISE~~

~~**OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION – LIMITED TO NRC UNLESS THE COMMISSION DETERMINES OTHERWISE**~~

HI SONGS Unit I RPV Communication Team,

Thanks to all for your assistance and support on implementing this Communication Plan. Also, thank you for helping me get up to speed as the SONGS PM.

As SONGS Project Manager and Coordinator of Communication Team, here is an update on the SONGS Unit 1 RPV Shipment:

- First note this email is OOU. Please label all of your emails on this subject as noted above similar to how the communication plan is marked. Also please note that, information about the time and date of the shipment is particularly sensitive and should not be shared outside the agency and only with those internally who need to know with the understanding that is OOU-SII.

Also, as of yesterday, May 14, the Snabel car is completely assembled with loaded



Unit I RPV.

- RI has photos of the shipment car. These are licensee photos, so please limit distribution. If you need to distribute or have any questions, please Stephanie Anderson, SONGS Lead Inspector, or Greg Warnick. We informed Stephanie that the photos will be transmitted by Trish to the NMSS front office for awareness. This happened this morning.
- UPDATE ON STATUS OF ACTIONS PER THE APPROVED SONGS COMMUNICATION PLAN: *see updates below in red.*

### **SCHEDULE FOR OUTREACH**

The schedule below describes the NRC staff's overall strategy to communicate the RPV shipment to stakeholders and conduct outreach during each phase.

*Step 1: April 16<sup>th</sup> - May 24<sup>th</sup>*

### **Begin Outreach to the State of California**

The NRC staff will begin initial informal outreach with the State of California and other States by working through the RIV RSLO to inform them that the Unit 1 RPV will be shipped on May 25<sup>th</sup>.

DONE. As of yesterday, Bill informed me he completed Step 1.

NOTE: Also the licensee informed me that they have informed the California Department of Health of the time and date. Reason: Once it is on the rail up the hill it is no longer on federal property and certain State actions apply. Specifically, the proprietary letter below states: EnergySolutions has been working with the State of California in accordance with the Agreement State requirements as outlined in the Notice of Reciprocal Recognition of License for Use in California as amended on April 20, 2020. Requisite information had been provided to the NRC and to California in accordance with 19 CFR 37.77; and requirement of their license to inform us of this fact. .... the information contained in Condition I 8A of EnergySolutions' Material License has been provided."

[Open ADAMS P8 Document\(San Onofre Nuclear Generating Station - Packaging and Transportation of Unit 1 Reactor Pressure Vessel.\)](#)  
[View ADAMS P8 Properties ML20129J907](#) notifying the NRC of State Involvement.

Stephanie Anderson, Greg Warnick, and Bill Maier were provided this information yesterday because it was just available through document control (SONGS did not provide a courtesy copy in advance). However, SONGS notified us on April 24 that they were notifying CA that day that the RPV is moving onto State lands (i.e., leaving the site for the adjacent railroad spur). Bill Maier (RIV RSLO) was made aware of the status, also, and reached out to the State.

*Step 2: April 16<sup>th</sup> - May 25<sup>th</sup>*

### **RIV Inspection of RPV Loading onto the Train car**

During RIV's planned inspection, if any issues are identified they will notify the NRC project manager, who will ensure that OPA, OCA, and NMSS management are appropriately informed.

As of today, RIV is planning to perform an onsite inspection next week.

It's my understanding that the inspection will consist of the inspection of the shipment. Schnabel car – is it loaded properly and operational, and verify the shipping manifest is correct and dose rates on the package and occupancy areas of the train. If this is not correct, Stephanie – please clarify for the team.

I spoke with the Licensee and they have been treating the information about the shipment day and time as OUO-SRI and would like us to do the same.

~~[OUO SRI]~~ Now the shipment of the Unit 1 RPV is scheduled for 10 pm pst on 5/24/2020  
~~[OUO SRI]~~

*Step 3: May 20<sup>th</sup>*

### **EDO Look Ahead Note**

NRC headquarters staff will generate a weekly look-ahead note to ensure that Senior management is informed of the RPV movement.



I understand that RIV does not plan on sending any OWLA on inspection activities, and I confirmed with Trish that due to the sensitivity as noted above about the date and time of the shipment DUWP will not send another OWLA but Trish will verbally communicate the information at the staff meeting with EDO on early next week.

Note: We did send an OWLA about three weeks ago: see below

NMSS

~~(OUO - SII)~~

On April 30, Southern California Edison (SCE) plans to transport the San Onofre Unit 1 Reactor Pressure Vessel (RPV) using a heavy-haul trailer to a rail spur for loading in preparation for its shipment to Clive, Utah for disposal. Region IV plans to inspect the RPV shipment on May 24, prior to it leaving the area for disposal. NMSS and Region IV have developed a communications plan for ensuring the State of California, Native American tribes, and stakeholders are appropriately informed during the transfer.

If you have any questions, please contact me.

I plan to (b)(6) this afternoon. If you have an urgent question today, please contact me at (b)(6).

Thank you

A

**From:** [Muessle, Mary](#)  
**To:** [Morris, Scott](#); [Veget, Anton](#)  
**Subject:** Fwd: SONGS Unit 1 RPV on Schnabel Car  
**Date:** Friday, May 15, 2020 8:23:32 AM

---

Some cool pictures.

For Tony, Stephanie is traveling to SONGs on Tuesday for the RPV movement Memorial Day weekend as well as for the onsite ISFSI inspection.

Begin Forwarded Message:

**From:** "Anderson, Stephanie" <[Stephanie.Anderson@nrc.gov](mailto:Stephanie.Anderson@nrc.gov)>  
**Subject:** FW: SONGS Unit 1 RPV on Schnabel Car  
**Date:** 15 May 2020 07:58  
**To:** "Muessle, Mary" <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>, "Howell, Linda" <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>  
**Cc:** "Warnick, Greg" <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>

Sorry, I should have included you two from the beginning.

---

**From:** Anderson, Stephanie <[Stephanie.Anderson@nrc.gov](mailto:Stephanie.Anderson@nrc.gov)>  
**Sent:** Friday, May 15, 2020 7:54 AM  
**To:** R4DNMS\_RIB <[R4DNMS\\_RIB@nrc.gov](mailto:R4DNMS_RIB@nrc.gov)>  
**Cc:** Snyder, Amy <[Amy.Snyder@nrc.gov](mailto:Amy.Snyder@nrc.gov)>; Watson, Bruce <[Bruce.Watson@nrc.gov](mailto:Bruce.Watson@nrc.gov)>  
**Subject:** SONGS Unit 1 RPV on Schnabel Car

**For branch and PM awareness.**

These are licensee photos, so please limit distribution. If you need to distribute or have any questions, please ask myself or Greg.


Thanks,

Stephanie Anderson

**From:** [Hanna Vega](#)  
**To:** [Linda Howell](#)  
**CC:** [Mark Scott](#); [Jose Antonio Vega](#); [Nancy Christensen](#); [Hobbs, Trish](#); [Pham, Bo](#); [Josephine Liman](#); [Wendy Smith](#); [Kerilyn Wilson](#); [Greg](#)  
**Subject:** RE: SONGS Crane Discussion  
**Date:** Monday, May 11, 2020 2:42:21 PM

Thanks Linda. Will do and keep you posted.

Best,

Angel B. Moreno  
Congressional Affairs Office  
Office of Congressional Affairs  
U.S. Nuclear Regulatory Commission  
Washington, DC  
 [www.nrc.gov](#)

**From:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>  
**Sent:** Monday, May 11, 2020 3:45 PM  
**To:** Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>  
**CC:** Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>; Vogel, Anton <[Anton.Vogel@nrc.gov](mailto:Anton.Vogel@nrc.gov)>; Kock, Andrea <[Andrea.Kock@nrc.gov](mailto:Andrea.Kock@nrc.gov)>; Regan, Christopher <[Christopher.Regan@nrc.gov](mailto:Christopher.Regan@nrc.gov)>; Holahan, Trish <[Patricia.Holahan@nrc.gov](mailto:Patricia.Holahan@nrc.gov)>; Pham, Bo <[Bo.Pham@nrc.gov](mailto:Bo.Pham@nrc.gov)>; Lopez-Santiago, Omar <[Omar.Lopez-Santiago@nrc.gov](mailto:Omar.Lopez-Santiago@nrc.gov)>; Morgan Butler, Kmyata <[Kmyata.Morgan-Butler@nrc.gov](mailto:Kmyata.Morgan-Butler@nrc.gov)>; Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>  
**Subject:** FW: SONGS Crane Discussion

Angel, the message below has been updated with info we'd all need today. You can forward with the photos sent earlier in the same guide.

Thanks,  
Linda

**From:** Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>  
**Sent:** Monday, May 11, 2020 11:31 AM  
**To:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>  
**CC:** Muesle, Mary <[Mary.Muesle@nrc.gov](mailto:Mary.Muesle@nrc.gov)>  
**Subject:** RE: SONGS Crane Discussion

Will do Linda. Standing by.

-Angel-

Attached are pictures of the areas and components discussed below and are for reference use only. These are pictures taken by NRC inspectors during past inspections and should not be distributed outside of your organizations.

Photo A - Cask Loading Pit - General View.JPG  
Photo B - Downloaded Cask in Loading Pit.JPG  
Photo C - Closeup of Lifting Device.JPG  
Photo D - Closeup of Trip Plate.JPG Muesle, Mary <[Mary.Muesle@nrc.gov](mailto:Mary.Muesle@nrc.gov)>

Southern California Edison (SCE) personnel contacted NRC inspectors on May 6, 2020 via telephone to inform the inspectors of a crane-related human performance issue that occurred late on the previous night in the Unit 3 fuel building. Although an error was made during crane operations, there was no safety impact since the crane operations were being done with an empty canister and no spent fuel was involved.

SCE described the human performance issue that occurred while placing the HI-TRAC transfer cask (with an empty canister) into the cask loading pit (See Photo A). The cask loading pit is located adjacent to the spent fuel pool where the transfer cask and canister are staged under water for spent fuel loading. As the empty transfer cask was set at the bottom of the loading pit (See Photo B), the crane operator inadvertently continued to lower the lift yoke and crane block/hook (See Photo C) further than what was required. This resulted in the lift yoke beginning to tilt within the loading pit (approximated 10-20 degrees from vertical) and caused the crane's load block reeving and ropes to become somewhat slack (See Photo D for area of concern). The workers noted the error within several seconds and stopped the lowering operations and took immediate corrective actions to place all equipment in a safe condition. SCE reported that there was no contact of the rigging equipment (lifting yoke or crane load block) to the outside of the transfer cask nor the inner liner of the loading pit.

Once the condition was assessed, the crane operator slowly raised the load block to re-gain tension and the lift yoke was disengaged from the transfer cask. SCE inspected the crane load block as it was withdrawn from the pool and some damage was noted. Specifically, a section of the metal guard (Trip plate) around the load block had become bent and one of the wire rope sections had moved outside its normal position. SCE then took actions to move the crane/hgging away from the cask loading pit area, make notifications, and initiated corrective actions. The empty transfer cask was left in a safe condition staged on the bottom of the cask loading pit.

The NRC inspectors noted that SCE's notification of the human performance issue was conservative, and not required as a reportable event, since there was no potential safety consequence. The inspectors also observed that SCE appeared to be taking appropriate corrective actions and was conducting a thorough review. The inspectors will continue to review this issue as part of our ongoing remote inspection efforts and will continue follow-up when we are onsite for an inspection later this month. SCE has completed crane repairs and required testing to resume fuel transfer operations. The inspectors are reviewing those results as part of our ongoing oversight activities.

The NRC inspectors noted that SCE's notification of the human performance issue was conservative, and not required as a reportable event, since there was no potential safety consequence. The inspectors also observed that SCE appeared to be taking appropriate corrective actions and was conducting a thorough review. The inspectors will continue to review this issue as part of our ongoing remote inspection efforts and will continue follow-up when we are onsite for an inspection later this month. SCE will not be using the crane until repairs (as needed) are made and they have completed required testing. The inspectors will review those results as part of our ongoing oversight activities.

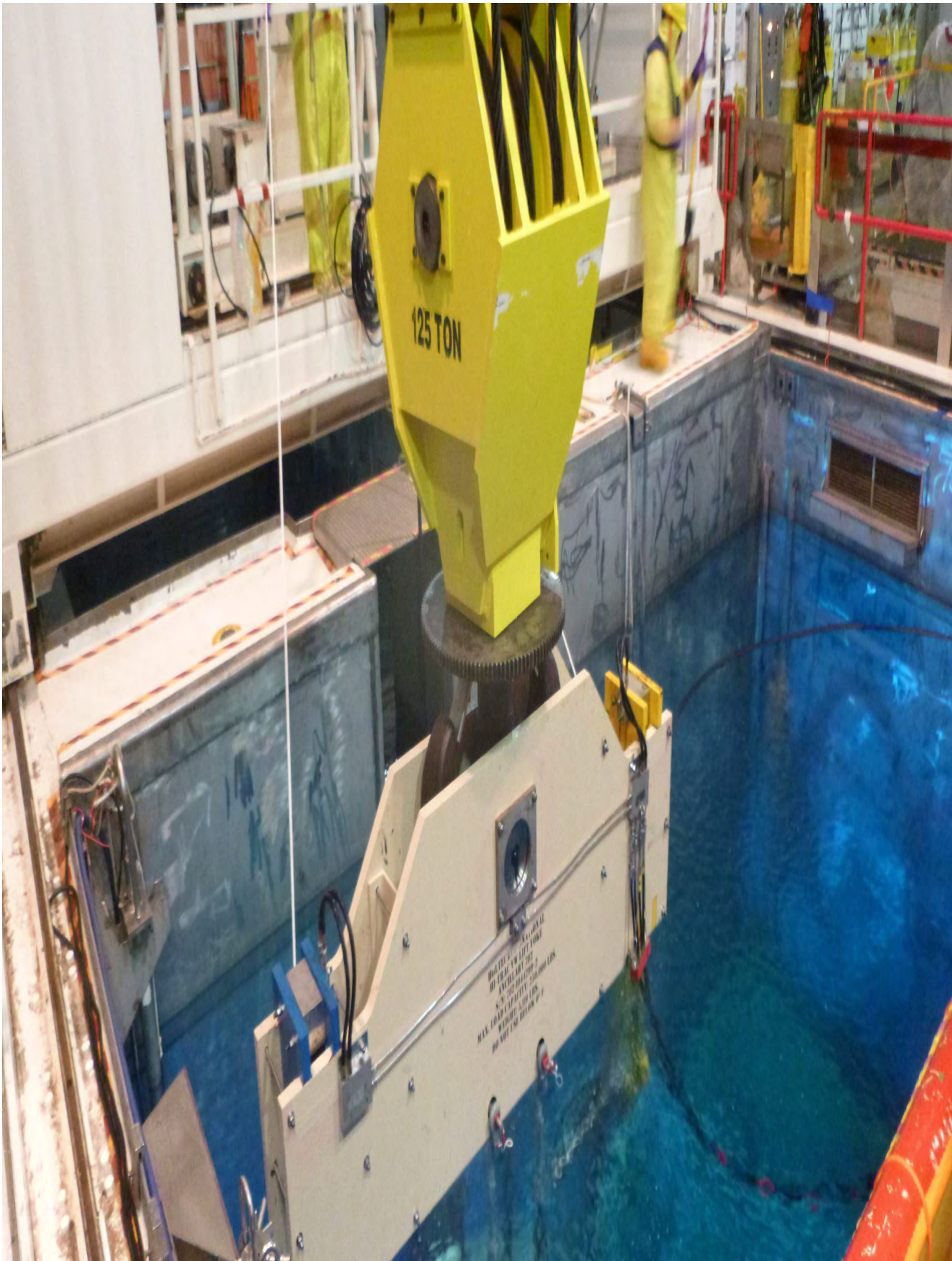




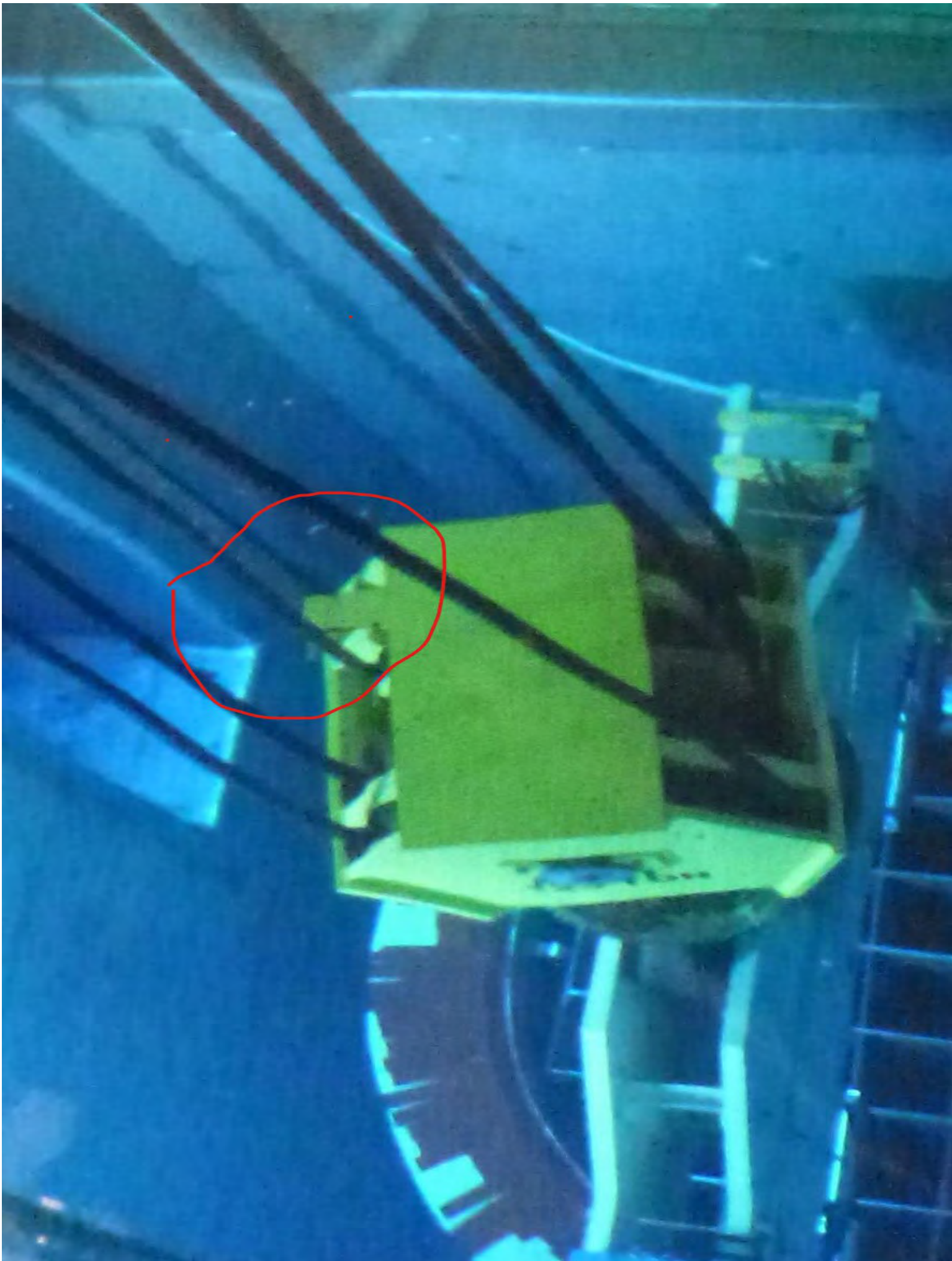














**From:** [Holahan, Trish](#)  
**To:** [Howell, Linda](#); [Morris, Scott](#); [Shaffer, Mark](#); [Muessle, Mary](#); [Veget, Anton](#); [Kock, Andrea](#); [Regan, Christopher](#); [Moreno, Angel](#)  
**Cc:** [Pham, Bo](#); [Snyder, Amy](#); [Watson, Bruce](#); [Lopez-Santiago, Omar](#); [Morgan-Butler, Kimyata](#); [Warnick, Greg](#); [Dricks, Victor](#); [Cylkowski, David](#); [McIntyre, David](#)  
**Subject:** Re: FW: SONGS Crane Pictures  
**Date:** Friday, May 08, 2020 2:04:26 PM

---

Thanks Linda.

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

From: "Howell, Linda" <Linda.Howell@nrc.gov>  
Date: Fri, May 08, 2020 2:55 PM -0400  
To: "Morris, Scott" <Scott.Morris@nrc.gov>, "Shaffer, Mark" <Mark.Shaffer@nrc.gov>, "Muessle, Mary" <Mary.Muessle@nrc.gov>, "Veget, Anton" <Anton.Veget@nrc.gov>, "Kock, Andrea" <Andrea.Kock@nrc.gov>, "Regan, Christopher" <Christopher.Regan@nrc.gov>, "Moreno, Angel" <Angel.Moreno@nrc.gov>  
CC: "Pham, Bo" <Bo.Pham@nrc.gov>, "Snyder, Amy" <Amy.Snyder@nrc.gov>, "Holahan, Trish" <Patricia.Holahan@nrc.gov>, "Watson, Bruce" <Bruce.Watson@nrc.gov>, "Lopez-Santiago, Omar" <Omar.Lopez-Santiago@nrc.gov>, "Morgan-Butler, Kimyata" <Kimyata.Morgan-Butler@nrc.gov>, "Warnick, Greg" <Greg.Warnick@nrc.gov>, "Dricks, Victor" <Victor.Dricks@nrc.gov>, "Cylkowski, David" <David.Cylkowski@nrc.gov>, "McIntyre, David" <David.McIntyre@nrc.gov>  
Subject: FW: SONGS Crane Pictures

We conducted a quick brief with the Deputy District Director, Kyle Krahel, for Representative Levin's staff today at noon, following requests from senior agency levels this morning. Please note that this briefing request/direction had very little advance notice, hence the limited advance coordination. For that, we apologize.

The subject of the briefing was an update on the issue reported by SCE this week involving downloading of a HI-TRAC transfer cask, with an empty MPC, into the cask loading pit area of the U3 spent fuel pool. Emails shared earlier provided details as we know them at this time, as well as information shared by OPA regarding SCE's possible plans to mention this in their next monthly update to their web page. Greg Warnick, Angel Moreno, Andrea Kock and I participated in the brief. The attached photos are ones obtained by our staff last year but they illustrate the cask loading pit, crane lifting device, what a downloaded cask looks like in the pit and a close up of a trip lever device (an element that experienced some damage during the May 5 evolution).

Information conveyed included a description of the evolution, emphasis that this did not involve a safety issue (since the MPC was empty and the HI-TRAC/MPC were not near fuel in the pool), the licensee conservatively notified us (although not reportable), and was conducting a thorough review. We also noted that we are reviewing this as part of our ongoing remote inspection efforts and will continue follow-up when we are onsite later this month. We also noted that the licensee will not be using the crane until repairs (as needed) are made and they have completed required testing – and that we will review those results.

Mr. Krahel thanked us for the brief and asked only a few questions. Greg and his staff will put together a brief summary of the evolution that can be shared with other Congressional staff on Monday.

Just want to say congrats to Greg for a great description and pulling photos together to facilitate understanding!

Contact me if you have any questions

Linda

---

**From:** Warnick, Greg <Greg.Warnick@nrc.gov>

**Sent:** Friday, May 08, 2020 11:04 AM

**To:** Howell, Linda <Linda.Howell@nrc.gov>; Moreno, Angel <Angel.Moreno@nrc.gov>

**Subject:** SONGS Crane Pictures

Attached are some photos to provide visuals of what we will discuss on the call.

Greg



**From:** [Muessle, Mary](#)  
**To:** [Warnick, Greg](#); [Howell, Linda](#)  
**Cc:** [Morris, Scott](#); [Veget, Anton](#); [Shaffer, Mark](#)  
**Subject:** RE: SONGS Crane Pictures  
**Date:** Friday, May 08, 2020 2:01:14 PM

---

Linda and Greg

Well done to you both. Thanks for putting this briefing together so quickly and pulling together the photos which I am sure aided the staff in understanding the situation. Please pass on my thanks to Lee and Chris as well. Such a good team!! I also appreciate Greg's (b)(6) to support this briefing.

Thanks and have a good weekend.

Mary

Mary Muessle  
Director, Division of Nuclear Materials Safety  
Region IV

REGION IV **VISION:**

*"Together, we work to foster a culture of high trust that maximizes professional growth and inspires leadership at all levels."*

---

**From:** Howell, Linda <Linda.Howell@nrc.gov>  
**Sent:** Friday, May 08, 2020 1:55 PM  
**To:** Morris, Scott <Scott.Morris@nrc.gov>; Shaffer, Mark <Mark.Shaffer@nrc.gov>; Muessle, Mary <Mary.Muessle@nrc.gov>; Veget, Anton <Anton.Veget@nrc.gov>; Kock, Andrea <Andrea.Kock@nrc.gov>; Regan, Christopher <Christopher.Regan@nrc.gov>; Moreno, Angel <Angel.Moreno@nrc.gov>  
**Cc:** Pham, Bo <Bo.Pham@nrc.gov>; Snyder, Amy <Amy.Snyder@nrc.gov>; Holahan, Trish <Patricia.Holahan@nrc.gov>; Watson, Bruce <Bruce.Watson@nrc.gov>; Lopez-Santiago, Omar <Omar.Lopez-Santiago@nrc.gov>; Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>; Warnick, Greg <Greg.Warnick@nrc.gov>; Dricks, Victor <Victor.Dricks@nrc.gov>; Cylkowski, David <David.Cylkowski@nrc.gov>; McIntyre, David <David.McIntyre@nrc.gov>  
**Subject:** FW: SONGS Crane Pictures

We conducted a quick brief with the Deputy District Director, Kyle Krahel, for Representative Levin's staff today at noon, following requests from senior agency levels this morning. Please note that this briefing request/direction had very little advance notice, hence the limited advance coordination. For that, we apologize.

The subject of the briefing was an update on the issue reported by SCE this week involving downloading of a HI-TRAC transfer cask, with an empty MPC, into the cask loading pit area of the U3 spent fuel pool. Emails shared earlier provided details as we know them at this time, as well as information shared by OPA regarding SCE's possible plans to mention this in their next monthly update to their web page. Greg Warnick, Angel Moreno, Andrea Kock and I participated in the brief. The attached photos are ones obtained by our staff last year but they illustrate the cask loading pit, crane lifting device, what a downloaded cask looks like in the pit and a close up of a trip lever device (an element that experienced some

damage during the May 5 evolution).

Information conveyed included a description of the evolution, emphasis that this did not involve a safety issue (since the MPC was empty and the HI-TRAC/MPC were not near fuel in the pool), the licensee conservatively notified us (although not reportable), and was conducting a thorough review. We also noted that we are reviewing this as part of our ongoing remote inspection efforts and will continue follow-up when we are onsite later this month. We also noted that the licensee will not be using the crane until repairs (as needed) are made and they have completed required testing – and that we will review those results.

Mr. Krahel thanked us for the brief and asked only a few questions. Greg and his staff will put together a brief summary of the evolution that can be shared with other Congressional staff on Monday.

Just want to say congrats to Greg for a great description and pulling photos together to facilitate understanding!

Contact me if you have any questions

Linda

---

**From:** Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>

**Sent:** Friday, May 08, 2020 11:04 AM

**To:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>

**Subject:** SONGS Crane Pictures

Attached are some photos to provide visuals of what we will discuss on the call.

Greg



**From:** [Howell, Linda](#)  
**To:** [Morgan-Butler, Kimyata](#); [Lopez-Santiago, Omar](#)  
**Cc:** [Morris, Scott](#); [Shaffer, Mark](#); [Muessle, Mary](#); [Lubinski, John](#); [Lewis, Robert](#); [Kock, Andrea](#); [Regan, Christopher](#); [Dricks, Victor](#); [Moreno, Angel](#); [Warnick, Greg](#)  
**Subject:** SONGS Inspection Activities  
**Date:** Thursday, April 16, 2020 8:01:57 AM

---

Good morning Kim & Omar! Just wanted to let you know that following several discussions with NMSS, OCA and OPA, Region IV has decided to not perform an on-site inspection at SONGS this month. Scott approved the division's recommendations, and NMSS has agreed with our proposal. Factors considered in making this decision included the current travel conditions, restrictions on conducting on-site inspections (in general, not restrictions from SCE), our ongoing oversight activities with SONGS and SCE managers, and licensee performance.

As you know, we increased the inspection frequency at SONGS when they resumed fuel transfer operations. We have continued monthly inspections on an unannounced basis, which is an important element of this increased level of oversight. In our discussions with stakeholders last year, we noted that we would perform frequent inspections, on a monthly basis, and provide information to the public through quarterly inspection reports. We have continued that inspection approach since SCE resumed fuel loading in July 2019. Our last inspection was performed in March and a quarterly report will be issued soon (covering Jan – Mar). Since the licensee resumed fuel transfer operations we have observed that they are proceeding in a methodical manner, they continue to implement their corrective actions and have actually developed enhancements for canister downloading. We have not observed or been informed of any unusual or unexpected issues during canister loading or fuel transfer.

Our staff continues with weekly (or more frequent) calls with SCE managers and staff. SCE managers have maintained a heightened sensitivity to conducting management calls with us when they believe there is important information to share at that level. Our inspectors also have the capability to review data and reports from the licensee remotely, via Certrec. So, given the current situation we believe that we have the capability to maintain adequate awareness of site activities for this short duration, and we always have the ability to respond if any issue should arise.

We plan to have an inspector (or two if needed) on site in May to observe the Unit 1 RPV transport preps and will perform observation of fuel transfer activities at that time or separately as circumstances permit. We do not plan on informing the licensee of our plan to hold on the April inspection since part of our unannounced approach to inspections is "keeping them on their toes" and ready for an inspection at any time.

Please let us know if there are any thoughts on this decision and as always, feel free to call if you have any questions.

Linda



**From:** [Howell, Linda](#)  
**To:** [Morris, Scott](#); [Muessle, Mary](#); [Shaffer, Mark](#)  
**Subject:** RE: FW: SONGS April Inspection  
**Date:** Wednesday, April 15, 2020 6:27:27 AM

---

Greg's staff continues to hold weekly calls with SCE managers and staff to discuss the status of site activities, and they do have the ability to review reports and documents via Certrec if needed. Of course, they can't monitor plant parameters real time because there are none to monitor. There is data that can be uploaded to Certrec about canister loading activities if something unusual was identified, but so far fuel transfer activities have been proceeding without any unusual or unexpected observations or occurrences. We can provide more details if needed.

---

**From:** Morris, Scott <Scott.Morris@nrc.gov>  
**Sent:** Wednesday, April 15, 2020 12:08 AM  
**To:** Muessle, Mary <Mary.Muessle@nrc.gov>; Shaffer, Mark <Mark.Shaffer@nrc.gov>  
**Cc:** Howell, Linda <Linda.Howell@nrc.gov>  
**Subject:** Re: FW: SONGS April Inspection  
**Importance:** High

Thanks ... let me think on it a bit.

One of the reasons we've been "comfortable" backing off inspections at operating reactors is that our remote communications with the licensees have been greatly enhanced (frequency, quality, etc). Licensees have bent over backwards to supply us with information in near real time. Have our communications with SCE been enhanced as well? That would be useful to me as I think about this proposal.

Scott

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

From: "Muessle, Mary" <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>  
Date: Tue, April 14, 2020 6:04 PM -0500  
To: "Morris, Scott" <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>, "Shaffer, Mark" <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>  
CC: "Howell, Linda" <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>  
Subject: FW: SONGS April Inspection

Scott and Mark

We update the NMSS one-pager on Thursday. Currently, the one-pager is silent on SONGS monthly inspections, but I think we are at the 2 week window that we should be making a final decision on travel. DNMS does not recommend an inspection in April and would need to look for an inspector to travel to SONGS if one is required. If you agree, we would notify NMSS tomorrow then assist in other notifications. Please let me know what else you need or if you want to discuss further.

Thanks  
Mary

April San Onofre Nuclear Generating Station (SONGS) Inspection

SONGS is currently continuing their fuel transfer operations and decommissioning activities, Region IV does not plan to conduct the April monthly inspection at SONGS due to the COVID -19 virus, travel restrictions, and NRC's current mandatory telework policies. While the NRC has been doing supplemental inspections on a monthly basis since fuel loading restarted, Region IV does not believe that there is a safety basis for an inspection in the current COVID-19 environment. Additionally, the manner that the inspections are performed makes social distancing difficult. The last NRC inspection at SONGS was conducted March 9-13, 2020. Current monthly inspections are unannounced and the Region would not notify the licensee, South Californian Edison, of the decision to forego the inspection. Inspections would continue on a monthly basis once relevant restrictions are lifted. In the event the that the agency determines an April inspection is required, we would solicit a volunteer from the agency overall to travel for the inspection.

Specific information regarding licensee performance is included below:

Since the licensee's resumption of fuel loading activities, the NRC has observed and confirmed that site personnel have completed all required corrective actions associated with the Aug 2018 incident. The NRC inspectors have confirmed the site's corrective actions have been effective to ensure the safe transportation of spent fuel to the site's ISFSI pad and complete safe downloading of canisters. The NRC has not identified any violations of NRC requirements related to the licensee's loading performance since the resumption of fuel loading activities. The NRC has identified that the licensee has continued to perform operations in compliance with site procedures and processes, performed the operations on a schedule that was methodical, and improved loading operations by utilizing good work practices, while implementing improved techniques to safely perform the site's loading operations.

Mary Muessle  
Director, Division of Nuclear Materials Safety  
Region IV

**REGION IV VISION:**

*"Together, we work to foster a culture of high trust that maximizes professional growth and inspires leadership at all levels."*

---

**From:** Muessle, Mary  
**Sent:** Friday, April 03, 2020 9:21 AM  
**To:** Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>; Shaffer, Mark <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>  
**Cc:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>  
**Subject:** RE: SONGS in the news

Scott/Mark

Not sure how to navigate timing on this one. NMSS was asking for planned travel/inspections through the end of April. We shared the following approach/message with Division level NMSS last night with the intent to share with you then John then .... We are ok delaying the decision – just want to be transparent within DNMS and NMSS that it is



still “under review” rather than “planned”. I am working today. Suggest you think some on it, and we can talk later today or Monday.  
Thanks

#### April San Onofre Nuclear Generating Station (SONGS) Inspection

SONGS is currently continuing their fuel transfer operations and decommissioning activities, Region IV does not plan to conduct the April monthly inspection at SONGS due to the COVID -19 virus, travel restrictions and NRC’s current mandatory telework policies. While the NRC has been doing supplemental inspections on a monthly basis since fuel loading restarted, Region IV does not believe that there is a safety basis for an inspection in the current COVID-19 environment. Additionally, the manner that the inspections are performed makes social distancing difficult. The last NRC inspection at SONGS was conducted March 9-13, 2020. Current monthly inspections are unannounced and the Region would not notify the licensee, South Californian Edison, of the decision to forego the inspection. Inspections would continue on a monthly basis once relevant restrictions are lifted. In the event that the agency determines an April inspection is required, we would solicit a volunteer from the agency overall to travel for the inspection.

Specific information regarding licensee performance is included below:

Since the licensee’s resumption of fuel loading activities, the NRC has observed and confirmed that site personnel have completed all required corrective actions associated with the Aug 2018 incident. The NRC inspectors have confirmed the site’s corrective actions have been effective to ensure the safe transportation of spent fuel to the site’s ISFSI pad and complete safe downloading of canisters. The NRC has not identified any violations of NRC requirements related to the licensee’s loading performance since the resumption of fuel loading activities. The NRC has identified that the licensee has continued to perform operations in compliance with site procedures and processes, performed the operations on a schedule that was methodical, and improved loading operations by utilizing good work practices, while implementing improved techniques to safely perform the site’s loading operations.

Mary Muessle  
Director, Division of Nuclear Materials Safety  
Region IV

#### REGION IV **VISION:**

*“Together, we work to foster a culture of high trust that maximizes professional growth and inspires leadership at all levels.”*

---

**From:** Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>

**Sent:** Friday, April 03, 2020 9:07 AM

**To:** Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>; Dacus, Eugene <[Eugene.Dacus@nrc.gov](mailto:Eugene.Dacus@nrc.gov)>; Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>; Dorman, Dan <[Dan.Dorman@nrc.gov](mailto:Dan.Dorman@nrc.gov)>

**Cc:** Muessle, Mary <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>; Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Shaffer, Mark <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>; Lopez-Santiago, Omar <[Omar.Lopez-Santiago@nrc.gov](mailto:Omar.Lopez-Santiago@nrc.gov)>; Morgan-Butler,

Kimyata <[Kimyata.Morgan-Butler@nrc.gov](mailto:Kimyata.Morgan-Butler@nrc.gov)>; Lewis, Robert <[Robert.Lewis@nrc.gov](mailto:Robert.Lewis@nrc.gov)>

**Subject:** RE: SONGS in the news

My two cents – we should only respond if asked. The issues below do not raise any safety concerns nor change our current position on inspections or site activities. We have not made a decision on any “April” inspection at SONGS yet and do not need to. We should wait to contact them once we are at a point of making that decision. If SONGS decides to delay fuel transfer, I assume they will let us know and we will factor that into our decision.

---

**From:** Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>

**Sent:** Friday, April 03, 2020 9:31 AM

**To:** Dacus, Eugene <[Eugene.Dacus@nrc.gov](mailto:Eugene.Dacus@nrc.gov)>; Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>; Dorman, Dan <[Dan.Dorman@nrc.gov](mailto:Dan.Dorman@nrc.gov)>

**Cc:** Muessle, Mary <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>; Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Shaffer, Mark <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>; Lopez-Santiago, Omar <[Omar.Lopez-Santiago@nrc.gov](mailto:Omar.Lopez-Santiago@nrc.gov)>; Morgan-Butler, Kimyata <[Kimyata.Morgan-Butler@nrc.gov](mailto:Kimyata.Morgan-Butler@nrc.gov)>; Lubinski, John <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>; Lewis, Robert <[Robert.Lewis@nrc.gov](mailto:Robert.Lewis@nrc.gov)>

**Subject:** FW: SONGS in the news

Note highlighted text in article below. I am wondering if we should reach out to Levin's staff regarding our commitment to conduct monthly unannounced inspections of FTO at SONGS. We did get out to the site in March (before mandatory WAH imposed), but our April inspection is in jeopardy ... of course if we do not perform the inspection, that will only raise his level of concern.

Thoughts?

Scott

---

**From:** Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>

**Sent:** Friday, April 03, 2020 7:20 AM

**To:** Shaffer, Mark <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>; Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>; Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Muessle, Mary <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>; Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>

**Subject:** SONGS in the news

**Edison limits on-site work at SONGS, reviews wastewater spill:**

**The Coast News Group (CA)**

**2 Apr 2020, Samantha Nelson**

Southern California Edison announced that some deconstruction work at the San Onofre Nuclear Generating Station (SONGS) has stopped temporarily, following Gov. Gavin Newsom's "safer at home" directive given March 25.

The deconstruction of SONGS began in February as part of the plant's overall decommissioning process.

The Department of Homeland Security identified critical infrastructure sectors like electric utilities



and determined that specific functions are considered essential, thus excluding them from Newsom's directive. This included operating and decommissioning nuclear plants.

Edison has taken additional steps to limit on-site work, which includes canceling non-essential meetings while holding others via teleconference; practicing social distancing, hand-washing and limiting physical sharing of documents; sanitizing work stations before and after shift changes; suspending site tours and moving public meetings online; and setting up health self-screening stations at entrances.

The transfer of spent nuclear fuel from wet to dry storage will also continue, which has Rep. Mike Levin (D-San Juan Capistrano) concerned.

The congressman sent a letter to Edison President and Chief Executive Officer Pedro Pizarro on March 30, asking why the company has chosen to continue its spent-fuel transfer operations.

"While I agree that power generation operations in the state have been appropriately declared essential by Gov. Newsom, I believe that fuel transfer activities should be evaluated separately from operations that keep hospitals running and customers' lights on," Levin wrote in his letter to Pizarro. Levin asked for a response to his letter by April 13. SONGS Public Information Officer John Dobken confirmed with The Coast News that Edison has received the letter and will review it and respond to Levin.

Additionally, Levin also notes his concern regarding a recent release of 7,000 gallons of sewage wastewater from the SONGS site, which occurred March 25.

"What happened was we had an unexpected influx of wastewater into the system of about 20,000 gallons and so that caused some displacement of the wastewater that was already in the treatment plant," Dobken told The Coast News. "Subsequently, there was a release of 7,000 gallons of partially treated wastewater into the ocean."

Dobken said SONGS does not yet have a cause for why the influx happened but is currently conducting a review to determine the cause. Once the wastewater was released, the system detected it and alerted the facility. SONGS then isolated the treatment plant and took it out of operation.

The site's sewage treatment plant is still out of operation, but SONGS has brought in tanker trucks that create additional space for sewage at the plant, allowing employees to use the bathrooms like normal. Dobken added that employees were always able to use sinks to wash their hands despite the treatment plant being shut down.

Dobken noted that the sewage system's wastewater is non-radiological.

"We'll continue to conduct our work by our core decommissioning principles of safety, stewardship and engagement throughout this process," Dobken said. "In this case, it means following our procedures, making the proper notifications, conducting a thorough review of the event and taking the appropriate responsive corrective actions."

According to Dobken, SONGS expects sewage treatment plant operations to resume soon.

## **California gnatcatcher presents unique challenge to SONGS decommissioning:**

### **Nuclear Energy Insider**

**2 Apr 2020, Paul Day**

The decommissioning and demolition of Southern California Edison's 2.2 GW San Onofre Nuclear Generating Station (SONGS) faces many technical challenges, but one of the most notable is adhering to strict local environmental guidelines, company officials say.

The more than 40-year-old power station nestles between the Pacific Ocean and the busy Interstate-5 and its twin domes housing Units 2 and 3 have become part of the landscape for many residents living around the plant.

It is also the natural habitat of ten federally endangered or threatened species including the California gnatcatcher and the southwestern willow flycatcher.

The plant ceased generating power in 2013 and while major dismantling and decontamination (D&D) work by contractor SDS (SONGS Decommissioning Solutions – a joint venture by AECOM and EnergySolutions) began in 2017, decommissioning work, overseen by SCE, began at the end of February.

“There is a very specific challenge at SONGS, in that with California, we have very strict environmental requirements and we need to mitigate those. We have endangered species that are on site and we cannot disturb them in any way,” says Director Deputy Decommissioning Officer Vince Bilovsky.

“That’s been a big challenge because the gnatcatcher is an endangered species here and if you come across its feeding area, you have to go around that.”

The SONGS site is connected to the national rail network via a rail spur, which SDS has been working to upgrade. The rail connection allows the teams to ship material from the site to the radioactive waste storage facility in Clive, Utah via train rather than by road.

However, the rail spur site had to be moved after the crew found their renovations would disrupt an area of sage brush, the gnatcatchers’ natural habitat.

The California State Lands Commission and the California Coastal Commission required the implementation of certain measures before the work could begin. They included performance of pre-construction surveys for rare-plants, reptiles, nesting birds, monitoring of cultural resources, appointment of a deconstruction liaison, publication of periodic progress reports, and worker environmental awareness training, the company says.

“If we identify a bird nest with eggs, we have to work around that,” says Bilovsky.

SONGS currently boasts three, large Airdancers (inflatable tube men often seen gyrating around the forecourts of car dealerships), kites and decoy owls, all placed strategically to discourage birds from nesting.

“The decoy owls last about two weeks after which you’ll see seagulls perching on top of them and you have to replace them. There are few other sites in the United States that compare to this,” says Bilovsky.

Mostly on Schedule

Though the COVID-19 crisis has put some of the deconstruction work on temporary hold – the safe transfer of spent nuclear fuel from wet to dry storage will continue but non-essential construction work has been curtailed by the pandemic – the work is mostly on schedule, says Bilovsky.

SDS was chosen for the job after EnergySolutions’ 10-year-long decommissioning work on Zion Nuclear Power Station, the largest commercial nuclear plant dismantling ever in the United States, Bilovsky says.

“So far, it’s going very well. They got started on critical path activity right away, which includes asbestos removal within the containment buildings. The critical path runs through the containment buildings and that’s where you need to start,” he says.

SDS is starting with the removal and containment of potential hazards, which in San Onofre is asbestos, and this is expected to take another six weeks.

Once the asbestos has been removed, the contractor will begin enlarging the hatches into the



containment area by stripping away support structure metal tendons to fit and install specially designed tools and equipment, cranes and a trolley.

It will then move to reactor vessels segmentation and the cutting up of radioactive waste, which is done under water before it is put in containers for storage.

"By the end of the first quarter next year, they'll start cutting," Bilovsky says.

#### Increased Oversight

In August 2018, contractor Holtec failed to sufficiently lower a fuel canister into the cavity enclosure container on the dry cask storage pad, leaving the canister resting on top of the divider shield ring and against the inside surface of the transfer cask.

The incident put fuel transfer back almost year, restarting again last July. Now, the group is on target to finish the fuel transfer of all 73 canisters by the middle of this summer.

Following the incident, SCE significantly increased oversight of the project, put operators through an advanced training program and changed the equipment that is used to install the canisters into the storage modules.

"We're applying that same oversight model to the decommissioning project. Decommissioning is more of an industrial safety project, but we're going to see the industrial safety aspect of the decommissioning the same way as the fuel transfers," Bilovsky says.

Early in the process, the team contacted German supplier Siempelkamp that designs and manufacturers tools and equipment for reactor vessel internal segmentation – 30 large shipping containers due in the fall and which will be installed in the containment building.

"One of the biggest lessons learned from (the fuel canister slip incident) is to make sure the reactor vessel and the internal cutting and dismantling equipment is very reliable and maintainable," says Bilovsky.

Mockup testing has shown that Siempelkamp designs are sufficiently robust for the job ahead, he says.

Victor Dricks

Senior Public Affairs Officer

U.S. Nuclear Regulatory Commission / Region IV

1600 E. Lamar Blvd.

Arlington, Texas 76011

(817) 200-1128

**From:** [Howell, Linda](#)  
**To:** [Morris, Scott](#); [Shaffer, Mark](#); [Warnick, Greg](#); [Kock, Andrea](#); [Regan, Christopher](#); [Holahan, Trish](#); [Pham, Bo](#)  
**Subject:** FW: RE: (External):Unit 1 RPV  
**Date:** Monday, April 13, 2020 2:21:33 PM  
**Attachments:** [SCE Response to Rep Levin re SONGS 04 10 2020 FINAL.pdf](#)

---

FYI

---

**From:** Dricks, Victor <Victor.Dricks@nrc.gov>  
**Sent:** Monday, April 13, 2020 12:05 PM  
**To:** Moreno, Angel <Angel.Moreno@nrc.gov>; Howell, Linda <Linda.Howell@nrc.gov>; Muessele, Mary <Mary.Muessele@nrc.gov>  
**Subject:** FW: RE: (External):Unit 1 RPV

FYI

Victor Dricks  
Senior Public Affairs Officer  
U.S. Nuclear Regulatory Commission / Region IV  
1600 E. Lamar Blvd.  
Arlington, Texas 76011  
(817) 200-1128

---

**From:** John Dobken <[john.dobken@sce.com](mailto:john.dobken@sce.com)>  
**Sent:** Monday, April 13, 2020 11:51 AM  
**To:** Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>  
**Subject:** [External\_Sender] RE: (External):Unit 1 RPV

Hi Victor – actually it's looking like on the 16<sup>th</sup> we will be placing it on the Goldhofer, which will still keep it on site. I'd have to check on an updated schedule (shipping not expected for a month or more) but, yes, we are putting together a communication plan surrounding the move. I can talk to you more about that if you have time?

Also – expecting the U-T to do a story on our response to Rep. Levin. Please see the attached document.

Thank you,

John

John Dobken  
Public Information Officer  
San Onofre Nuclear Generating Station  
Ofc: 949.368.9875  
Cell: (b)(6)

**From:** Dricks, Victor [<mailto:Victor.Dricks@nrc.gov>]

**Sent:** Monday, April 13, 2020 9:33 AM

**To:** John Dobken <[john.dobken@sce.com](mailto:john.dobken@sce.com)>

**Subject:** (External):Unit 1 RPV

**CAUTION EXTERNAL EMAIL**

Hi John! I understand that on April 16th, the SONGS Unit 1 RPV will begin to be loaded onto a train car for shipping to Apex, NV. Are you planning any kind of public notification or announcement?

Victor Dricks

Senior Public Affairs Officer

U.S. Nuclear Regulatory Commission / Region IV

1600 E. Lamar Blvd.

Arlington, Texas 76011

(817) 200-1128

April 10, 2020

The Honorable Mike Levin  
U.S. House of Representatives  
1626 Longworth House Office Building  
Washington, D.C. 20515

Dear Representative Levin,

Thank you for your recent letter to Edison International President and CEO Pedro J. Pizarro regarding the San Onofre Nuclear Generating Station (SONGS). As Dr. Pizarro indicated in his April 2 letter to you, he asked me to follow up with answers to your questions about the SONGS response to the COVID-19 pandemic, as well as the wastewater release that occurred on March 25.

The safety of our customers, workforce and the public remains our top priority. We have instituted comprehensive measures on site to maintain the health and safety of our critical workforce. I have outlined many of these actions in the enclosure to this letter. The deconstruction work remains curtailed, with limited approved activities that satisfy the requirements of the SONGS pandemic protocol, particularly regarding the location of those activities and interaction with SONGS critical staff. These activities are in line with federal and state pandemic-related guidelines for critical work. The work to safely transfer spent nuclear fuel from wet to dry storage, which offers additional safety advantages, also continues under the SONGS pandemic protocol. As of today, we have 15 remaining spent fuel canisters to store.

Regarding the partially treated wastewater release, we continue to look into the cause for the large influx of water to the system. While the unplanned release is unacceptable, the systems provided significant dilution, which served to limit any environmental impacts. We have put initial measures in place to prevent reoccurrence.

The team at SONGS has responded to the pandemic challenge in a manner that reflects a focus on safety. We see daily examples of employees focused on protecting not only themselves but their co-workers. I appreciate their efforts and their dedication.

If you have additional questions regarding operations at SONGS, please do not hesitate to contact me.

Sincerely,



Douglas R. Bauder  
Vice President Decommissioning and Chief Nuclear Officer, SONGS

cc: Pedro J. Pizarro, President and CEO, EIX



## **COVID-19 Response**

### **1. What is the full rationale for maintaining the current level of operations during the COVID-19 pandemic?**

Southern California Edison's actions at SONGS related to the COVID-19 pandemic have prioritized employee health and safety while conducting operations at the site.

SCE evaluated the work taking place at SONGS following Governor Newsom's March 19 stay-at-home executive order and in light of Department of Homeland Security (DHS) guidance on critical infrastructure sectors, which includes decommissioning nuclear plants, such as SONGS. Governor Newsom further expanded the categories of essential work to include construction work on March 22.

We took actions to curtail some deconstruction work, and paused fuel transfer operations on March 23 to ensure any continuing work would be conducted in adherence to the SONGS pandemic protocol. Non-essential workers, whether SCE employees or contractor staff, are teleworking.

While wet and dry storage are safe for spent nuclear fuel, dry storage in robust, welded stainless-steel canisters provides additional safety advantages. Dry storage systems are passive; they require no electricity, have no moving parts, no make-up water tanks, and cool the fuel through simple convection air flow. The dry fuel storage systems at San Onofre have more than twice the seismic rating of the spent fuel pools.

The decisions regarding continuing work were made in partnership with our co-owners and our lead contractors, who have committed to adhere to the SONGS pandemic protocol.

We at SONGS continue to remain flexible in our response to changing conditions and guidelines.

### **2. Our communities' first responder services are expected to be overtaxed due to the pandemic. Does SCE's planning account for this reality and what extra steps is SCE taking to reduce the potential need for emergency services at SONGS?**

Yes, because of the reduced risk at SONGS as a decommissioning plant, the site is less reliant on off-site emergency responders as compared to when SONGS was an operating nuclear plant. Since retirement of Units 2 and 3 in 2013, with the reactors at SONGS permanently defueled and the spent fuel having cooled for several years, the potential for on site (and off-site) incidents requiring any support from off-site emergency responders has been greatly reduced. In fact, in June 2015, the NRC approved the SONGS Permanently Defueled Emergency Plan which eliminates the requirement for SONGS-specific off-site emergency plans. However, more general "all hazards" emergency plans remain in place with local cities and counties.



At present, Camp Pendleton remains our partner for initial responses to fire, rescue, medical, and medical transport needs. We also have a full-time and a part-time nurse practitioner on site, as well as a robust and well-trained security force. SCE has memorandums of understanding with local health care providers regarding health or medical treatment for employees and contractors. They have assured us they can continue to provide medical care, if necessary.

**3. Does SCE have a policy in place to ensure that workers coming from outside the community are healthy and not transmitting COVID-19?**

Yes. We have instituted a pandemic protocol to protect all SONGS workers.

Our workforce is relatively stable, though we occasionally have a need to onboard additional personnel depending on the project. We have instituted a travel policy that requires employees and contractors utilizing public transportation, air or ground, to self-quarantine for 14 days before coming on site. We have also instituted travel restrictions for those already on site and those who are currently teleworking.

Employees are urged to self-screen at home, with reminders of COVID-19 symptoms (e.g., fever, dry cough). If they believe they should stay home, they are encouraged to do so.

Employees coming on site self-screen each day before entering. This includes asking themselves a series of questions including how they feel (checking for symptoms); if they've traveled, or a member of their household has traveled (other than local travel); and if they've had close contact with anyone diagnosed with, or suspected to have, COVID-19.

**4. What is SCE's plan to ensure staff can wash their hands immediately after use of restrooms, how far are washing stations from on-site restrooms, and how are restrooms being disinfected? Please describe all on-site sanitation measures that are being implemented.**

All sanitary facilities at the site remain in operation and are cleaned with disinfectant twice a day. Hand sanitizer is also available for all employees at a number of locations around the plant.

## **Wastewater Release**

**1. What caused the sewage treatment plant to fail?**

Indications point toward a large volume of wastewater from a blockage in one of the influent lines, and a failure of the influent pump/controller.

**2. Was any aspect of the failure related to human error? If so, please provide as much detail as possible.**

The large influx of wastewater does not appear to be due to human performance. However, as part of our evaluation we are looking at whether our actions following that event were sufficient to prevent or minimize the discharge, and to what extent human performance was a factor. An early conclusion is that it would be beneficial to revise procedures for operators and staff, in addition to making certain equipment and system upgrades or modifications, to specifically address our response and the overall performance of the plant. Our initial actions prior to re-start of the plant are listed below in response to Question 4.

**3. What is the impact of the sewage release on the surrounding environment and how did you reach these conclusions?**

The San Diego County Department of Environmental Health assessed the environmental impact as low, requiring no beach closure or action by the public, in part due to the dilution level, which was approximately 200:1 (SCE's NPDES permit for San Onofre calls for a dilution ratio of at least 10:1), and that the release took place more than a mile off-shore and 50 feet below the surface of the ocean.

**4. What steps are you taking to ensure further sewage releases will not continue in the future?**

To guard against a reoccurrence of a release, SCE has implemented equipment changes and bolstered our response actions.

Before returning the system to service we took the following actions:

- Tested and verified the sewage treatment system equipment is performing properly. We identified an influent pump start switch that was not working properly and it was repaired.
- Established a temporary storage reserve available on site where any future unanticipated volume of influent can be routed.
- Ensured there is 24/7 support available from our licensed sewage treatment operations contractor to respond to off-normal events.

**From:** [Howell, Linda](#)  
**To:** [Morris, Scott](#); [Shaffer, Mark](#); [Holahan, Trish](#); [Pham, Bo](#); [Dricks, Victor](#); [Muessle, Mary](#)  
**Cc:** [Kock, Andrea](#); [Regan, Christopher](#); [Warnick, Greg](#); [Groom, Jeremy](#)  
**Subject:** SONGS Update  
**Date:** Friday, February 28, 2020 6:52:25 PM

---

Good evening all! This is just a quick update on information I received from SCE a short while ago. The information has very low safety significance but a potential to reach public information sources, so it was a courtesy call.

SDS, the site decomm contractor, currently has subcontractor work force performing asbestos abatement within containment structures. Similar to rad work, protective clothing is used and workers must go through a series of decon steps as they exit containment to ensure any asbestos fibers are eliminated prior to departing the work location. One step is to shower using a temporary shower setup that has been set up for this stage of work. The shower water is collected in holding vessels which are sampled periodically for various constituents. The source of the shower water is domestic, coming from San Clemente.

This morning SCE was informed by SDS that very low levels of tritium was detected in the holding vessel samples, as well as on the shower heads. (Shower head samples were slightly higher than holding vessel samples.) The values provided to SCE were below EPA drinking water levels. (SCE wasn't able to provide specific numbers when they called me.) SDS also reported that they pulled the work team together and told them they were stopping further asbestos work that required showering because of the tritium levels detected. SCE said they characterized the levels as very low, but these subcontractors aren't rad workers. Apparently a few became concerned.

The potential for workers to socialize this information is what prompted the call to me. SCE is taking the appropriate steps to ensure further sampling is done to determine the source (right now they think it may be the domestic water source, but more needs to be done for confirmation.) No plans for further comms by SCE until they figure it out. SCE plans another meeting in a couple of hours to review more information and will get back to me if there is anything new.

This is info only in case something surfaces in the public arena. I will update if there is anything noteworthy over the weekend.

**From:** [ALBERT BATES](#)  
**To:** [Howell, Linda](#); [Warnick, Greg](#); [Anderson, Stephanie](#); [Morris, Scott](#)  
**Cc:** [ALBERT BATES](#); [MARK MORGAN](#)  
**Subject:** [External\_Sender] SCE to Begin Dismantlement of SONGS  
**Date:** Wednesday, January 22, 2020 6:05:41 PM

---

Scott, Linda, Greg, Stephanie,

Below is the content of the information we are providing to stakeholders concerning the mass mailing we have made today to the surrounding community.

I write to make you aware that dismantlement of the San Onofre Nuclear Generating Station (SONGS) will begin next month.

I want to make you aware that SCE today mailed an [Advance Notice of Deconstruction](#) to 12,000 residents in communities within a five-mile radius of the plant. The notice provides key timeframes for the initial dismantlement activity at SONGS and resources to learn more about overall decommissioning of the site. Plans and progress during the dismantlement process will be available to the public on our [website](#). A news release on the start of dismantlement is available [here](#).

Dismantlement involves the removal of buildings, containment domes, and other above-grade structures associated with Units 2 and 3 at SONGS, as well as the partial removal of some offshore structures. The work will be conducted in compliance with US NRC requirements, starting no earlier than Feb. 22, 2020.

SCE today mailed an [Advance Notice of Deconstruction](#) to 12,000 residents in communities within a five-mile radius of the plant. The notice provides key timeframes for the initial dismantlement activity at SONGS and resources to learn more about overall decommissioning of the site. Plans and progress during the dismantlement process will be available to the public on our [website](#). A news release on the start of dismantlement is available [here](#).

Following a rigorous planning and environmental review process, SCE received a coastal development permit from the California Coastal Commission in October 2019. The permit clears the way for dismantlement of plant structures and decontamination of the site.

Initial work will take place within the boundaries of SONGS and should have minimal impact on the surrounding recreational areas.

During dismantlement activities, members of the public may ask questions and/or submit comments to SCE via a Deconstruction Liaison who is available at [nuccomm@songs.sce.com](mailto:nuccomm@songs.sce.com) and 1-800-332-3612.

Public walking tours of the facility will continue and are available on a regular basis. The public is also encouraged to attend quarterly meetings of the SONGS Community

Engagement Panel (CEP) for updates on dismantlement.

Best regards,  
Al

Al Bates  
Southern California Edison  
Manager, Regulatory  
[Al.Bates@SCE.com](mailto:Al.Bates@SCE.com)  
949-368-6945 (O)  
(b)(6) (M)



**From:** [Smith, Chris](#)  
**To:** [Dricks, Victor](#); [Regan, Christopher](#); [Morris, Scott](#); [Muessle, Mary](#); [Howell, Linda](#); [Warnick, Greg](#)  
**Cc:** [Brookhart, Lee](#); [Simpson, Eric](#)  
**Subject:** Re: SONGS Spent Fuel Transfer Update 1/17/2020  
**Date:** Saturday, January 18, 2020 6:54:59 PM

---

Chris -

I'll preface my responses by saying these are my preliminary informed opinions, and the licensee (nor Region 4) has yet to fully evaluate the data from last night's download.

Also, per Victor's email, I think we covered this line of questioning and have talking points for them that were developed prior to our public meeting last August.

My speculation is that SCE will not perform any additional inspection of MPC#46 from last night.

While incidental contact and underload alarms are undesirable, they are an anticipated operational occurrence during the downloading process. This change to allow scratching was accepted into the licensing basis under the 72.48 process and documented in the supplemental inspection report (<https://www.nrc.gov/docs/ML1919/ML19190A217.pdf> -- see page 4 and 31)

The NRC did not object to this conclusion based on our independent verification of the licensee's in-situ visual inspections and evaluations of the 8 selected MPCs, including the MPC involved in the August 2018 event. As summarized in the report, the 72.48 change concluded that the worst-case scratching that may occur would not exceed any ASME code thresholds or present a safety concern. Further, given that the August 2018 "event MPC" bore its full weight on the shield ring gussets, but did not exhibit any damage during the in-situ visual inspections, provided reasonable assurance that a lesser force (50,000 lbs) would be bounded by the August canister. The assumption that the gussets would not damage the MPC beyond what was observed during the in-situ inspections was further substantiated via a computer analysis.

Lastly, I would speculate that SCE would not expend the resources required to deploy the remote visual inspection because the August 2018 MPC should be the worst case scenario.

No doubt SCE and Holtec will seek to understand the cause of why the MPC was contacting during the download evolution, and that analysis is currently in their corrective action program.

As the issue develops, and we receive more data, I'll pass it along.

In the meantime I hope my perspective helps.

Let me know if you need anything else.

Thanks

Chris

---

**From:** Dricks, Victor <Victor.Dricks@nrc.gov>

**Sent:** Saturday, January 18, 2020 1:18 PM

**To:** Regan, Christopher <Christopher.Regan@nrc.gov>; Smith, Chris <Chris.Smith@nrc.gov>; Morris, Scott <Scott.Morris@nrc.gov>; Muessle, Mary <Mary.Muessle@nrc.gov>; Howell, Linda <Linda.Howell@nrc.gov>; Warnick, Greg <Greg.Warnick@nrc.gov>; Lubinski, John <John.Lubinski@nrc.gov>; Kock, Andrea <Andrea.Kock@nrc.gov>; Lopez-Santiago, Omar <Omar.Lopez-Santiago@nrc.gov>; Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>; Moreno, Angel <Angel.Moreno@nrc.gov>

**Cc:** Brookhart, Lee <Lee.Brookhart@nrc.gov>; Simpson, Eric <Eric.Simpson@nrc.gov>

**Subject:** Re: SONGS Spent Fuel Transfer Update 1/17/2020

The region has talking points to use in the event of media interest.

---

On: 18 January 2020 14:31,

"Regan, Christopher" <[Christopher.Regan@nrc.gov](mailto:Christopher.Regan@nrc.gov)> wrote:

Chris,

Nice summary. I (we) all appreciate you being on site for the second down load attempt.

Was there any discussion at all by SCE of conducting an inspection of the canister now that it has been down loaded? Although their procedures allow assessment of other considerations to determine if there was damage to the canister the fact that there was 1) several attempts to down load, 2) there us evidence of contact on the shield ring gusset from the unsuccessful downloading attempts, and 3) load sensor alarms during the successful download indicating some contact was occurring, suggests contact with the canister (as prior experience has shown) has occurred. Noting that remote visual inspection technology is available now to SCE to provide definitive data regarding any instances of incidental canister contact during this downloading.

Regards,

Chris

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

From: "Smith, Chris" <Chris.Smith@nrc.gov>

Date: Sat, January 18, 2020 4:40 AM -0500

To: "Morris, Scott" <Scott.Morris@nrc.gov>, "Muessle, Mary" <Mary.Muessle@nrc.gov>, "Howell, Linda" <Linda.Howell@nrc.gov>, "Warnick, Greg" <Greg.Warnick@nrc.gov>, "Dricks, Victor" <Victor.Dricks@nrc.gov>, "Lubinski, John" <John.Lubinski@nrc.gov>, "Regan, Christopher" <Christopher.Regan@nrc.gov>, "Kock, Andrea" <Andrea.Kock@nrc.gov>, "Lopez-Santiago, Omar" <Omar.Lopez-Santiago@nrc.gov>, "Morgan-Butler, Kimyata" <Kimyata.Morgan-Butler@nrc.gov>, "Moreno, Angel" <Angel.Moreno@nrc.gov>

CC: "Brookhart, Lee" <Lee.Brookhart@nrc.gov>, "Simpson, Eric" <Eric.Simpson@nrc.gov>

Subject: SONGS Spent Fuel Transfer Update 1/17/2020

### Background:

San Onofre Nuclear Generating Station (SONGS) uses a Holtec UMAX dry storage system for spent fuel.

For a primer on the UMAX system and NRC activities since the August 2018 event, please see the following website: <https://www.nrc.gov/reactors/operating/ops-experience/songs-spec-insp->



### 1/16/2020 Event Description:

On 1/16/2020 SONGS failed to download MPC #46 because of 4 sequential underload alarms. The underload alarms are a new design feature that were added as a corrective action from the August 2018 event. The alarms use a load shackle to measure the weight of the canister in real-time during download activities, and if the load shackle senses less than the full weight of the canister it generates an alarm.

The 4 alarms annunciated at a height of approximately 222 inches – which corresponds to the location of the shield rings.

The underloads alarm values were [34,000 28,600 26,400 and 45,000] lbs. These values did not exceed the 50,000 lbs procedure limit, which would require further engineering evaluation and work stoppage. The 50,000 lb threshold was established as a conservative value and was derived from a computer analysis of the August 2018 event (where the full weight of the MPC was resting on the shield ring).

The crew repositioned the VCT after each downloading attempt (very minor adjustments) but could not successfully clear the ~ 222 inch location without an alarm.

The UMAX downloading procedure allows 4 download attempts. After 4 attempts, further downloading work must be stopped, the MPC is raised, the mating device drawer is closed, and the MPC is secured into the HI-TRAC.

After the MPC was secured, the station entered the issue into the corrective action program and notified site engineering.

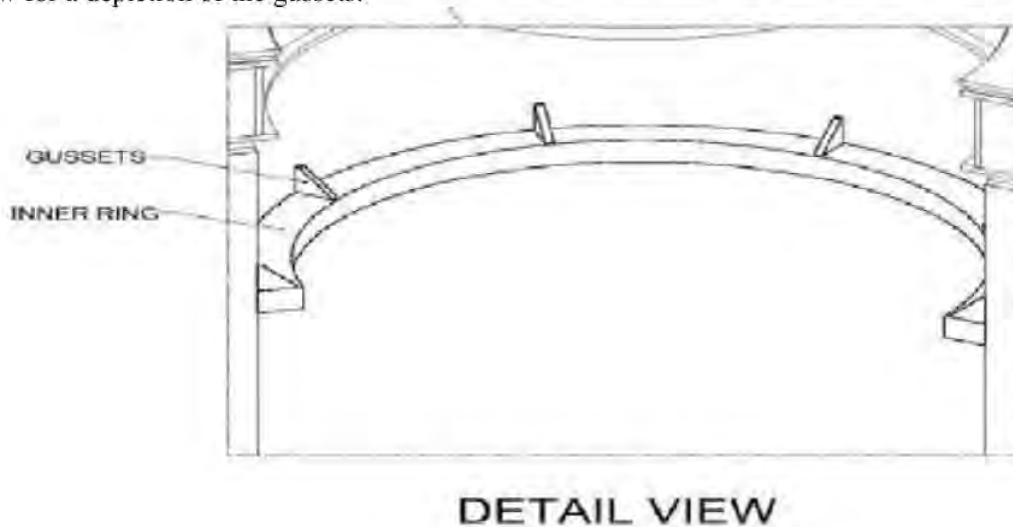
### Licensee recovery actions:

On 1/17/2020 the licensee De-stacked (disassembled) UMAX components.

This involved driving the VCT, attached to the HI-TRAC loaded with the spent fuel MPC, away from the VVM for a closer inspection.

After the VCT was clear of the VVM, it was clear that the mating device was not perfectly centered over the VVM, but rather offset in the North direction.

Further, once the mating device drawer was opened, it was clear that the Northwest gussets on the shield ring contacted the MPC, and wore off the paint coating from the gusset. See the figure below for a depiction of the gussets.



The contact area between the gusset and the MPC was small, estimated 0.25 – 0.5 inches long. I

was able to visually see the gusset “scuffing” and it looked similar to the gusset shield ring damage from the August 2018 event.

Given the previous statistical scratch analysis, the computer analysis that estimated the full weight of the MPC resting on the shield ring, and the fact no underload exceeded 50,000 lbs the licensee concluded that there was no damage to the MPC. This is allowed by the procedure.

After the visual inspection, the licensee proceeded to re-align all the UMAX components and attempt another download. I observed the licensee use a level and the alignment pins to ensure the mating device and the VVM were both concentric and level.

Late into the evening, the licensee successfully downloaded MPC #46, however, 3 underload alarms came in.

Similar to the 1/16 misalignment, the alarms annunciated in the region of the shield ring gussets. The exact underload values aren’t known until the data is analyzed (the sensors take data at a rate of 5 Hz), but the largest underload value I observed on the load sensing readout tablet was 42,000 lbs. Minor adjustments with tower heights were made between each downloading attempt, but none of the licensee’s actions were significantly different than 1/16.

### Followup actions:

Unfortunately, right now I can only speculate as to the cause of the misalignment. The licensee nor Holtec could offer a definitive explanation why the MPC was contacting the shield rings on 1/17, after confirming the alignment checks. The initial conditions on 1/16 and 1/17 appear to be the same.

The licensee will de-stack the UMAX components for MPC #46, and attempt to see if anything shifted or if there is further indications of contact on the shield ring gusset (or another gusset).

I anticipate the corrective action program will drive the licensee to perform a causal analysis to determine why MPC #46 became misaligned, and what actions to take going forward.

### Sidebar factoids:

MPC #46 was placed into the 2<sup>nd</sup> row from the East – the first attempt in that row. This row appears to be higher on the East side, opposite from all the other MPC placements where the West side was high.

On 1/16 the night shift aligned the VCT and attempted the download. In the past, typically the day shift maneuvers the VCT into position and the night shift performs the download.

### Specific follow-up items:

The download procedure has weather restrictions. The following are procedural limitations for downloading: rain forecast exceeding 0.3 inches per hour, anticipated 30 mph winds from the MET tower, or thunderstorm activity. None of these adverse weather conditions existed during the 1/16 or 1/17 download. However, the rain that occurred on 1/16 is typical for the area, not intense but misty which causes poor visibility.

What prompts the licensee to perform inspections for damage?

- It sounds like the procedure would not call for any damage assessment if canister downloads within the 4 attempts.
- Correct, unless the underload value exceeded 50,000 lbs or the engineering inspection discovered an abnormal condition, there are no requirements for a damage assessment.

Thanks,  
Chris



**From:** [Kock, Andrea](#)  
**To:** [Regan, Christopher](#); [Smith, Chris](#); [Morris, Scott](#); [Muessle, Mary](#); [Howell, Linda](#); [Warnick, Greg](#); [Dricks, Victor](#); [Lubinski, John](#); [Lopez-Santiago, Omar](#); [Morgan-Butler, Kimyata](#); [Moreno, Angel](#)  
**Cc:** [Brookhart, Lee](#); [Simpson, Eric](#)  
**Subject:** Re: SONGS Spent Fuel Transfer Update 1/17/2020  
**Date:** Saturday, January 18, 2020 3:06:03 PM

---

This is a good question and I would say if there is no plan to inspect, we will need to be prepared to answer why we are confident that the load limit established (50000 lb) assures they there is no damage to the canister.

Have a great weekend all!!

On: 18 January 2020 15:31, "Regan, Christopher" <[Christopher.Regan@nrc.gov](mailto:Christopher.Regan@nrc.gov)> wrote:

Chris,

Nice summary. I (we) all appreciate you being on site for the second down load attempt.

Was there any discussion at all by SCE of conducting an inspection of the canister now that it has been down loaded? Although their procedures allow assessment of other considerations to determine if there was damage to the canister the fact that there was 1) several attempts to down load, 2) there us evidence of contact on the shield ring gusset from the unsuccessful downloading attempts, and 3) load sensor alarms during the successful download indicating some contact was occurring, suggests contact with the canister (as prior experience has shown) has occurred. Noting that remote visual inspection technology is available now to SCE to provide definitive data regarding any instances of incidental canister contact during this downloading.

Regards,

Chris

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

From: "Smith, Chris" <[Chris.Smith@nrc.gov](mailto:Chris.Smith@nrc.gov)>

Date: Sat, January 18, 2020 4:40 AM -0500

To: "Morris, Scott" <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>, "Muessle, Mary" <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>,

"Howell, Linda" <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>, "Warnick, Greg" <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>,

"Dricks, Victor" <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>, "Lubinski, John" <[John.Lubinski@nrc.gov](mailto:John.Lubinski@nrc.gov)>,

"Regan, Christopher" <[Christopher.Regan@nrc.gov](mailto:Christopher.Regan@nrc.gov)>, "Kock, Andrea"

<[Andrea.Kock@nrc.gov](mailto:Andrea.Kock@nrc.gov)>, "Lopez-Santiago, Omar" <[Omar.Lopez-Santiago@nrc.gov](mailto:Omar.Lopez-Santiago@nrc.gov)>,

"Morgan-Butler, Kimyata" <[Kimyata.Morgan-Butler@nrc.gov](mailto:Kimyata.Morgan-Butler@nrc.gov)>, "Moreno, Angel"

<[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>

CC: "Brookhart, Lee" <[Lee.Brookhart@nrc.gov](mailto:Lee.Brookhart@nrc.gov)>, "Simpson, Eric"

<[Eric.Simpson@nrc.gov](mailto:Eric.Simpson@nrc.gov)>

Subject: SONGS Spent Fuel Transfer Update 1/17/2020

## Background:

San Onofre Nuclear Generating Station (SONGS) uses a Holtec UMAX dry storage system for spent fuel.

For a primer on the UMAX system and NRC activities since the August 2018 event, please see the following website: <https://www.nrc.gov/reactors/operating/ops-experience/songs-spec-insp-activities-cask-loading-misalignment.html>

1/16/2020 Event Description:

On 1/16/2020 SONGS failed to download MPC #46 because of 4 sequential underload alarms. The underload alarms are a new design feature that were added as a corrective action from the August 2018 event. The alarms use a load shackle to measure the weight of the canister in real-time during download activities, and if the load shackle senses less than the full weight of the canister it generates an alarm.

The 4 alarms annunciated at a height of approximately 222 inches – which corresponds to the location of the shield rings.

The underloads alarm values were [34,000 28,600 26,400 and 45,000] lbs. These values did not exceed the 50,000 lbs procedure limit, which would require further engineering evaluation and work stoppage. The 50,000 lb threshold was established as a conservative value and was derived from a computer analysis of the August 2018 event (where the full weight of the MPC was resting on the shield ring).

The crew repositioned the VCT after each downloading attempt (very minor adjustments) but could not successfully clear the ~ 222 inch location without an alarm.

The UMAX downloading procedure allows 4 download attempts. After 4 attempts, further downloading work must be stopped, the MPC is raised, the mating device drawer is closed, and the MPC is secured into the HI-TRAC.

After the MPC was secured, the station entered the issue into the corrective action program and notified site engineering.

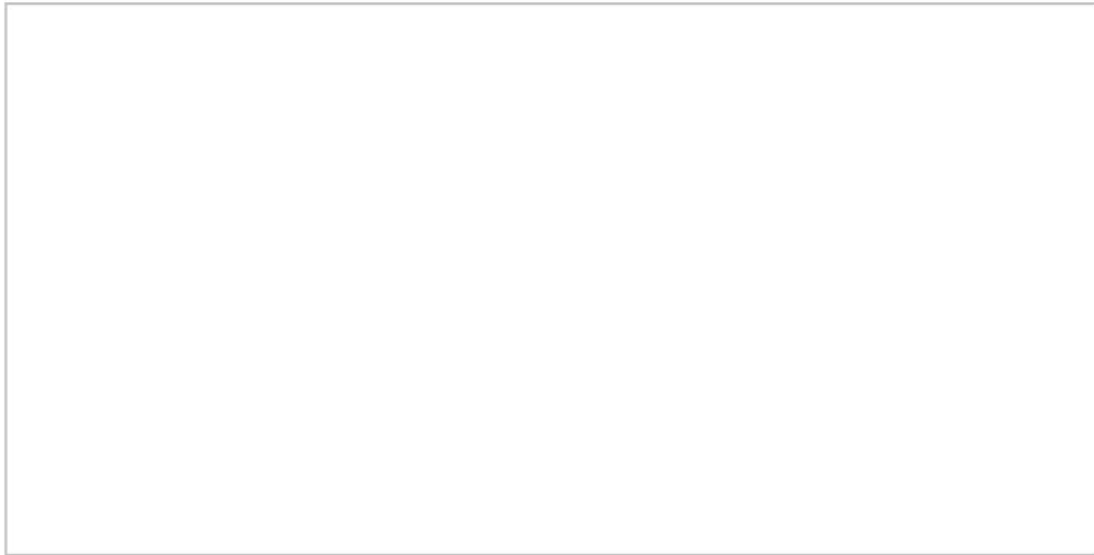
#### Licensee recovery actions:

On 1/17/2020 the licensee De-stacked (disassembled) UMAX components.

This involved driving the VCT, attached to the HI-TRAC loaded with the spent fuel MPC, away from the VVM for a closer inspection.

After the VCT was clear of the VVM, it was clear that the mating device was not perfectly centered over the VVM, but rather offset in the North direction.

Further, once the mating device drawer was opened, it was clear that the Northwest gussets on the shield ring contacted the MPC, and wore off the paint coating from the gusset. See the figure below for a depiction of the gussets.



The contact area between the gusset and the MPC was small, estimated 0.25 – 0.5 inches long. I was able to visually see the gusset “scuffing” and it looked similar to the gusset shield ring damage from the August 2018 event.

Given the previous statistical scratch analysis, the computer analysis that estimated the full weight of the MPC resting on the shield ring, and the fact no underload exceeded 50,000 lbs the licensee concluded that there was no damage to the MPC. This is allowed by the procedure.

After the visual inspection, the licensee proceeded to re-align all the UMAX components and attempt another download. I observed the licensee use a level and the alignment pins to ensure the mating device and the VVM were both concentric and level.

Late into the evening, the licensee successfully downloaded MPC #46, however, 3 underload alarms came in.

Similar to the 1/16 misalignment, the alarms annunciated in the region of the shield ring gussets. The exact underload values aren’t known until the data is analyzed (the sensors take data at a rate of 5 Hz), but the largest underload value I observed on the load sensing readout tablet was 42,000 lbs. Minor adjustments with tower heights were made between each downloading attempt, but none of the licensee’s actions were significantly different than 1/16.

#### Followup actions:

Unfortunately, right now I can only speculate as to the cause of the misalignment. The licensee nor Holtec could offer a definitive explanation why the MPC was contacting the shield rings on 1/17, after confirming the alignment checks. The initial conditions on 1/16 and 1/17 appear to be the same.

The licensee will de-stack the UMAX components for MPC #46, and attempt to see if anything shifted or if there is further indications of contact on the shield ring gusset (or another gusset).

I anticipate the corrective action program will drive the licensee to perform a causal analysis to determine why MPC #46 became misaligned, and what actions to take going forward.



### Sidebar factoids:

MPC #46 was placed into the 2<sup>nd</sup> row from the East – the first attempt in that row. This row appears to be higher on the East side, opposite from all the other MPC placements where the West side was high.

On 1/16 the night shift aligned the VCT and attempted the download. In the past, typically the day shift maneuvers the VCT into position and the night shift performs the download.

### Specific follow-up items:

The download procedure has weather restrictions. The following are procedural limitations for downloading: rain forecast exceeding 0.3 inches per hour, anticipated 30 mph winds from the MET tower, or thunderstorm activity. None of these adverse weather conditions existed during the 1/16 or 1/17 download. However, the rain that occurred on 1/16 is typical for the area, not intense but misty which causes poor visibility.

What prompts the licensee to perform inspections for damage?

- It sounds like the procedure would not call for any damage assessment if canister downloads within the 4 attempts.
  - Correct, unless the underload value exceeded 50,000 lbs or the engineering inspection discovered an abnormal condition, there are no requirements for a damage assessment.

Thanks,

Chris

**From:** [Howell, Linda](#)  
**To:** [Morris, Scott](#); [Muessle, Mary](#); [Kock, Andrea](#); [Regan, Christopher](#); [Holahan, Trish](#); [Pham, Bo](#); [Dricks, Victor](#); [Maier, Bill](#); [Warnick, Greg](#)  
**Cc:** [Moreno, Angel](#); [Lopez-Santiago, Omar](#); [Morgan-Butler, Kimyata](#)  
**Subject:** Inquiries about SONGS  
**Date:** Thursday, January 16, 2020 6:47:06 PM

---

I received a text msg from Al Bates noting that SCE was informed by the San Diego Water Quality Board that the Board received inquiries today about the scheduled release at SONGS. Nothing on the nature of the inquiries. But letting you know because the Board indicated they were referring them to NRC. Victor, you might want to let Dave know too.

We really don't have anything to say about the release, it complies (as far as we know) with Part 20 limits. Notifications are conditional to an agreement with the State Lands Commission. The talking points I shared earlier this week are valid for this release.

Linda



**From:** [Warnick, Greg](#)  
**To:** [Morris, Scott](#); [Howell, Linda](#); [Muessle, Mary](#)  
**Cc:** [Dricks, Victor](#)  
**Subject:** RE: SONGS One-Pager  
**Date:** Thursday, January 16, 2020 7:18:03 AM  
**Attachments:** [SONGS ISFSI INSPECTION REQUENCY - DRAFT - 01\\_16\\_2020.docx](#)

2-page draft attachment  
is being withheld in its  
entirety under FOIA  
exemption 5

Agree. Updated version attached (with date added).

Greg

---

**From:** Morris, Scott  
**Sent:** Wednesday, January 15, 2020 5:43 PM  
**To:** Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>; Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Muessle, Mary <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>  
**Cc:** Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>  
**Subject:** RE: SONGS One-Pager

THANK YOU Greg ... for now we should probably control the document as DRAFT –  
PREDECISIONAL INFORMATION – NOT FOR RELEASE

---

**From:** Warnick, Greg  
**Sent:** Wednesday, January 15, 2020 4:21 PM  
**To:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Muessle, Mary <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>  
**Cc:** Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>; Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>  
**Subject:** RE: SONGS One-Pager

Attached is the latest version of the one-pager to use during our discussions with HQ tomorrow.

Greg

---

**From:** Warnick, Greg  
**Sent:** Wednesday, January 15, 2020 11:04 AM  
**To:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Muessle, Mary <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>; Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>  
**Subject:** SONGS One-Pager

Attached is the one-pager drafted by my branch for your review. This also includes Victor's comments.

Thanks,

Greg

**From:** [Howell, Linda](#)  
**To:** [Morris, Scott](#); [Shaffer, Mark](#); [Lewis, Robert](#); [Lubinski, John](#); [Holahan, Trish](#); [Pham, Bo](#); [Kock, Andrea](#); [Regan, Christopher](#)  
**Cc:** [McCoppin, Michael](#); [Dricks, Victor](#); [Warnick, Greg](#); [Watson, Bruce](#); [Cruz Perez, Zahira](#); [Hay, Michael](#); [Maier, Bill](#); [Quichocho, Jessie](#)  
**Subject:** Talking Points for SONGS" Planned Liquid Batch Release  
**Date:** Tuesday, December 17, 2019 11:07:33 AM  
**Attachments:** [SONGS RELEASES - FINAL.docx](#)

---

Good Morning All, I am forwarding some talking points that were developed by Region IV technical staff and our Public Affairs Officer concerning the planned liquid batch release at SONGS later this week (12/19). This activity is not a "first evolution," rather it is something that has occurred during the operational life time of the plant, but has not occurred in the past several years since the plant is no longer operating and is not generating volumes of wastewater. The wastewater that will be released has been treated to meet criteria set forth by the EPA National Discharge Pollutant Elimination System for non-radiological content and SCE's NRC license/NRC requirements for radiological content. Normally such releases would be reported under normal, periodic reporting requirements; however, SCE makes a public notice in accordance with a concession made with the State Lands Commission. We received advance notice of the planned discharge and public notice late last week because SCE is sensitive to the potential for the public notice to draw attention from local stakeholders. As I noted above, OPA has been involved in developing the talking points but has no plan for any proactive information sharing since this is an infrequent, but routine activity.

**Talking Points for SONGS Planned Release  
On December 19, 2019**

- All nuclear power plants periodically release radioactive liquids and gases to the environment. NRC has strict rules to keep radiation levels in the environment very low to protect public health and safety and minimize potential impacts to animals, plants and sea life. These rules are maintained even after a nuclear plant ceases commercial operation, like San Onofre.
- The NRC requires nuclear power plants to keep any radioactive material releases as low as reasonably achievable (ALARA.) Plant operators must comply with radiation dose limits and have procedures in place to monitor all releases and report this information annually to the NRC. These reports are posted on the NRC website.
- The planned release from San Onofre is well below NRC regulatory limits.
- Southern California Edison is required to submit an annual effluent report like they did when they were operating, and all releases have been reported since the permanent plant shutdown. SONGS has not performed a liquid batch release since 1st Quarter 2015 (ML16124B013).
- ML19121A425 is the last submitted annual radioactive annual effluent release report for SONGS, which was submitted to the NRC in April 2019.
- SONGS has conducted releases similar to the one planned for December 19, 2019, but this type of release hasn't occurred during the past two years.
- San Onofre will make an advance public notice of the planned release in accordance with a concession made by Southern California Edison with the State Lands Commission.

**From:** [Howell, Linda](#)  
**To:** [Warnick, Greg](#)  
**Cc:** [Hay, Michael](#); [Morris, Scott](#); [Shaffer, Mark](#); [Dricks, Victor](#)  
**Subject:** Fwd: Update from SONGS - Information to be held internally until 12/19/2019  
**Date:** Friday, December 13, 2019 5:16:18 PM

---

Greg and Victor, can you guys pair up early Monday and come up with some talking points that can be shared upwards? All, Greg has great background knowledge of this activity from his years onsite; it's nothing new, it just hasn't been done in awhile.

Scott & Mark, we'll get something to you on Monday.

Have a great weekend everyone! Get those Xmas/Holiday tasks done!

Linda

---

**From:** "McCoppin, Michael" <[Michael.McCoppin@nrc.gov](mailto:Michael.McCoppin@nrc.gov)>  
**Subject:** Fwd: Update from SONGS - Information to be held internally until 12/19/2019  
**Date:** 13 December 2019 15:19  
**To:** "Morris, Scott" <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>, "Shaffer, Mark" <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>, "Howell, Linda" <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>

Please see Steve's questions and comment below. Any OPA prep underway?

Tks

Mc

Begin Forwarded Message:

**From:** "McCoppin, Michael" <[Michael.McCoppin@nrc.gov](mailto:Michael.McCoppin@nrc.gov)>  
**Subject:** Re: Update from SONGS - Information to be held internally until 12/19/2019  
**Date:** 13 December 2019 16:17  
**To:** "West, Steven" <[Steven.West@nrc.gov](mailto:Steven.West@nrc.gov)>, "Doane, Margaret" <[Margaret.Doane@nrc.gov](mailto:Margaret.Doane@nrc.gov)>, "Dorman, Dan" <[Dan.Dorman@nrc.gov](mailto:Dan.Dorman@nrc.gov)>, "Haney, Catherine" <[Catherine.Haney@nrc.gov](mailto:Catherine.Haney@nrc.gov)>, "Jackson, Diane" <[Diane.Jackson@nrc.gov](mailto:Diane.Jackson@nrc.gov)>, "Ruffin, Steve" <[Steve.Ruffin@nrc.gov](mailto:Steve.Ruffin@nrc.gov)>, "Quichocho, Jessie" <[Jessie.Quichocho@nrc.gov](mailto:Jessie.Quichocho@nrc.gov)>, "Morgan-Butler, Kimyata" <[Kimyata.Morgan-Butler@nrc.gov](mailto:Kimyata.Morgan-Butler@nrc.gov)>, "Rodriguez-Luccioni, Hector" <[Hector.Rodriguez-Luccioni@nrc.gov](mailto:Hector.Rodriguez-Luccioni@nrc.gov)>

Yes the Commissioner CAs are aware. I'll poll staff regarding prepared answers for anticipated questions. Roger that for Hector.

Mc

On: 13 December 2019 15:17, "West, Steven" <[Steven.West@nrc.gov](mailto:Steven.West@nrc.gov)> wrote:



I see that OPA is aware. Have we prepared answers to the inevitable questions? Suggest we ensure they are reviewed by all appropriate internal stakeholder. Commissioner heads up?

Include Hector on future SONGS emails, please.

Steve

K. Steven West, DEDM  
U.S. Nuclear Regulatory Commission



---

**From:** McCoppin, Michael  
**Sent:** Thursday, December 12, 2019 12:42 PM  
**To:** Doane, Margaret <[Margaret.Doane@nrc.gov](mailto:Margaret.Doane@nrc.gov)>; Dorman, Dan <[Dan.Dorman@nrc.gov](mailto:Dan.Dorman@nrc.gov)>; West, Steven <[Steven.West@nrc.gov](mailto:Steven.West@nrc.gov)>; Haney, Catherine <[Catherine.Haney@nrc.gov](mailto:Catherine.Haney@nrc.gov)>; Jackson, Diane <[Diane.Jackson@nrc.gov](mailto:Diane.Jackson@nrc.gov)>; Ruffin, Steve <[Steve.Ruffin@nrc.gov](mailto:Steve.Ruffin@nrc.gov)>; Quichocho, Jessie <[Jessie.Quichocho@nrc.gov](mailto:Jessie.Quichocho@nrc.gov)>; Morgan-Butler, Kimyata <[Kimyata.Morgan-Butler@nrc.gov](mailto:Kimyata.Morgan-Butler@nrc.gov)>  
**Subject:** FW: Update from SONGS - Information to be held internally until 12/19/2019

This could get some attention next week...

---

**From:** Morris, Scott  
**Sent:** Thursday, December 12, 2019 12:27 PM  
**To:** Quichocho, Jessie <[Jessie.Quichocho@nrc.gov](mailto:Jessie.Quichocho@nrc.gov)>; McCoppin, Michael <[Michael.McCoppin@nrc.gov](mailto:Michael.McCoppin@nrc.gov)>  
**Subject:** FW: Update from SONGS - Information to be held internally until 12/19/2019

FYI

---

**From:** Howell, Linda  
**Sent:** Wednesday, December 11, 2019 4:54 PM  
**To:** Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>; Shaffer, Mark <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>; Hay, Michael <[Michael.Hay@nrc.gov](mailto:Michael.Hay@nrc.gov)>; Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>; Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>  
**Cc:** Maier, Bill <[Bill.Maier@nrc.gov](mailto:Bill.Maier@nrc.gov)>  
**Subject:** Update from SONGS - Information to be held internally until



12/19/2019

Al Bates contacted me this afternoon to provide an early heads-up about information that SCE will make public next week. Apparently, as a concession agreed to in order to obtain an environmental permit from the State Lands Commission, SCE agreed to provide public notice in advance of certain planned radiological releases. SCE has not made a release in the past couple of years but plans to do so next week. The release will be a volume of liquid (22,000 gallons) from a holding tank in the rad waste collection area. Al explained that the radioactive content is in concentrations below regulatory limits and the liquids consist primarily of condensate drawn from AC units (as well as other sources). It will be a slow release rate (~8gpm) over a period of time to the ocean. SCE plans to post a notice on 12/17, and their public information staff will coordinate with Victor in advance (more likely as the notice is posted). They plan to initiate the release on 12/19. We can explore further with them next week during Greg's weekly call with SCE staff.

**From:** [Howell, Linda](#)  
**To:** [Morris, Scott](#); [Shaffer, Mark](#); [Warnick, Greg](#)  
**Subject:** FW: Key Messages Holtec Follow-up Inspection  
**Date:** Saturday, August 17, 2019 12:00:27 PM  
**Attachments:** [Key Messages follow-up inspection 08 14 2019.docx](#)

---

Ok, after being out I just got to this today. (b)(5)

(b)(5) I have not seen the Holtec report yet, but note that one of the SLIV vios involves an analysis done for scratching on the UMAX canisters..... I'll have the full detail by the time you get in Scott.

---

**From:** Morgan-Butler, Kimyata  
**Sent:** Thursday, August 15, 2019 9:30 AM  
**To:** West, Steven <Steven.West@nrc.gov>  
**Cc:** Lubinski, John <John.Lubinski@nrc.gov>; Lewis, Robert <Robert.Lewis@nrc.gov>; Layton, Michael <Michael.Layton@nrc.gov>; Howell, Linda <Linda.Howell@nrc.gov>; Dodson, Douglas <Douglas.Dodson@nrc.gov>  
**Subject:** FW: Key Messages Holtec Follow-up Inspection

Hi Steve,

Please see the attached one-pager that contains information related to the follow-up inspection at HOLTEC. If you are ok with the content, (b)(5)

(b)(5) NMSS is planning to issue the inspection report on August 16<sup>th</sup> and make it publicly available on August 23<sup>rd</sup>. It is my recommendation that we provide the one-pager to the CAs today ahead of issuance of the report (although I do understand that there is a high possibility that the Commission may also receive the one-pager from OCA/OPA).

(b)(5)

Thanks,

Kim

Kimyata Morgan-Butler, Ph.D.  
Executive Technical Assistant – NMSS, OCHCO, SBCR  
Office of the Executive Director for Operations  
US Nuclear Regulatory Commission

301-415-0733

---

**From:** Layton, Michael

**Sent:** Wednesday, August 14, 2019 3:47 PM

**To:** Morgan-Butler, Kimyata <[Kimyata.Morgan-Butler@nrc.gov](mailto:Kimyata.Morgan-Butler@nrc.gov)>; Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>; McIntyre, David <[David.McIntyre@nrc.gov](mailto:David.McIntyre@nrc.gov)>

**Cc:** Marciano, Damaris <[Damaris.Marciano@nrc.gov](mailto:Damaris.Marciano@nrc.gov)>; Regan, Christopher <[Christopher.Regan@nrc.gov](mailto:Christopher.Regan@nrc.gov)>; Lewis, Robert <[Robert.Lewis@nrc.gov](mailto:Robert.Lewis@nrc.gov)>

**Subject:** Key Messages Holtec Follow-up Inspection

Folks,

Attached for your use are the Key Messages on the follow-up inspection at Holtec. This is the inspection of the corrective actions following the escalated enforcement for the shim stand-off design. The inspection report will be issued on Friday and the report will be made public in ADAMS on August 23.

Let me know if you need any additional information.

MCL

**Holtec International  
Dry Cask Storage Systems  
Follow-up Inspection**

August 14, 2019

**Key Message**

- **On August 16, 2019, NRC will issue an inspection report for a June follow-up inspection of Holtec International.**
- **The June follow-up inspection was conducted to verify the corrective actions related to a May 2018 NRC inspection that determined that Holtec had not followed the design control process required by 10 CFR 72.48**
- **The follow-up inspection determined that one SLIV violation of regulatory requirements occurred. The violation relates to two isolated 10 CFR 72.48 evaluations of canister shell scratch that omitted sufficient technical basis and were of low safety significance.**
- **The staff's inspection report will be issued on August 16, 2019 and will become publicly available August 23, 2019 (5 working days after placement in ADAMS).**

**Facts**

- In April 2019, the staff issued a final enforcement action against Holtec citing a SLIII violation involving Holtec's design control process and a SLIV violation involving its screening evaluation on the need for NRC approval before making a design change. The SLIII violation was of moderate safety significance, because Holtec did not evaluate a credible accident and exposure scenario that, although it did not occur, could have had a potential significant consequence. Four (4) MPC-37 canisters loaded at SONGS containing the shim standoff design remain operable because the decay heat loads of the canisters are below specified limit for the canister design and therefore bounding.
- The staff performed a follow-up inspection in June 2019 to verify effective implementation of Holtec's corrective actions. The staff included a review of design changes Holtec incorporated to their HI-STORM 100 and UMAX storage systems that did not require prior NRC approval in accordance with 10 CFR 72.48.
- During the June inspection, the staff assessed short- and long-term corrective actions, actions to prevent recurrence, and method for evaluating effectiveness of corrective actions associated with the previous violations identified in April 2019 resulting from a design change to incorporate the shim standoffs that resulted in escalated enforcement (10 CFR 72.146 design control violation, and 10 CFR 72.48 violation).
- In the case of the shim standoff design control SLIII violation, the staff confirmed that adequate measures were taken to ensure that the root cause of the condition was determined and corrective actions were taken to preclude repetition.
- In the case of the 10 CFR 72.48 SLIV violation, the staff assessed a sample of design changes. Holtec's causal evaluation and corrective actions were comprehensive; however, the staff identified two examples of a 72.48 design changes associated with

**Holtec International  
Dry Cask Storage Systems  
Follow-up Inspection**

August 14, 2019

the potential for scratches on the exterior of the UMAX canister system that were not supported by an adequate technical and regulatory basis.

- The current violation is a result of not properly documenting the technical basis needed to justify the change proposed in the 10 CFR 72.48 evaluation. The current violation is not due to inadequate corrective action taken from the previously cited SLIV violation, as that violation focused on the screening used before applying 10 CFR 72.48 that resulted in the inappropriate use of 10 CFR 72.48. This inspection report requires that Holtec provide a written reply to the violation and address the reason and what corrective action steps it has taken to address and avoid further violations.
- The design change for the shim standoff affected three Multi-Purpose Canister (MPC) types (37, 89, and 68M), which are used by licensees at the SONGS, Vermont Yankee, Columbia, and Grand Gulf plants. All remain operable because the decay heat loads of the canisters are below specified limit for the respective canister designs and therefore bounding.



**From:** [Howell, Linda](#)  
**To:** [Morris, Scott](#)  
**Cc:** [Warnick, Greg](#); [Shaffer, Mark](#); [Gaddy, Vincent](#)  
**Subject:** Re: California Next Week  
**Date:** Wednesday, August 14, 2019 5:28:57 PM

---

Just exited a call with SCE (Bates). One item of discussion to share is the CCC talk with Doug next week. It won't be a public meeting (at least not at this time). The real focus is to discuss the necessity of maintaining the SFP and what that would really mean for the site. Doug will go into some repair discussions, as I mentioned earlier, and I actually learned that SCE has gone a little further in exploring "cold spray" than I previously knew. I'll be getting a package of info from AI (don't know if it'll arrive before we leave but that's ok). If anyone wants to check it out you can google VRC Metals, I guess they have some video footage and other good info on their web page. EPRI has also been working with this company to explore this as an option for repair, if needed.

Of course, we will sing the agency line during our meeting. But as we did months ago with the visual assessments, we can note that technologies are being used (including in the nuclear industry) in other applications that are proven and may provide viable options for dry fuel storage.

---

On: 14 August 2019 16:09,  
"Morris, Scott" <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)> wrote:

Thanks Angel.

---

**From:** Moreno, Angel  
**Sent:** Wednesday, August 14, 2019 2:56 PM  
**To:** Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>; Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>; Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Gaddy, Vincent <[Vincent.Gaddy@nrc.gov](mailto:Vincent.Gaddy@nrc.gov)>  
**Cc:** Shaffer, Mark <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>; Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>  
**Subject:** RE: California Next Week

FYI -

OCA Travel & Schedule:

- Aug. 18<sup>th</sup> - Gene and Angel arrive at LAX 10:11AM (PST)
- Hotel – Renaissance, Aliso Viejo
- Aug 19<sup>th</sup> (2:30PM, PST) Congressional Briefing
  - Location:
    - Office of Representative Mike Levin  
2204 El Camino Real  
Suite 314  
Oceanside, CA 92054

- Congressional Staff
  - **Kyle Krahel**, Deputy District Director, Office of Rep. Mike Levin (D-CA) – Oceanside, CA
  - **Laura Oatman**, District Director, Office of Rep. Harley Rouda (D-CA) – Newport, CA
  - **Bill Kratz**, District Director, Office of Sen. Dianne Feinstein (D-CA) – San Diego, CA
  - **Sean Anstead**, Field Representative, Office of Sen. Kamala Harris (D-CA) – San Diego, CA
- OCA to meet with RIV staff at Doubletree Hotel (1:00PM)
- Aug 20<sup>th</sup> (Town Hall)
  - OCA to head over to meeting facility at 5PM
  - Representative Mike Levin (D-CA) plans to read an oral statement (3 Minutes)
  - Staff to Sen. Kamala Harris (D-CA) and Rep. Harley Rouda (D-CA) also plan to attend
  - Rep. Levin has been made aware that Scott will be present

Thanks. –Angel

---

**From:** Morris, Scott

**Sent:** Wednesday, August 14, 2019 3:10 PM

**To:** Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>; Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Gaddy, Vincent <[Vincent.Gaddy@nrc.gov](mailto:Vincent.Gaddy@nrc.gov)>

**Cc:** Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>; Shaffer, Mark <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>; Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>

**Subject:** RE: California Next Week

Okay thanks

---

**From:** Warnick, Greg

**Sent:** Wednesday, August 14, 2019 2:09 PM

**To:** Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>; Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Gaddy, Vincent <[Vincent.Gaddy@nrc.gov](mailto:Vincent.Gaddy@nrc.gov)>

**Cc:** Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>; Shaffer, Mark <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>; Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>

**Subject:** RE: California Next Week

Most are at the Doubletree in Dana Point.

---

**From:** Morris, Scott

**Sent:** Wednesday, August 14, 2019 2:08 PM

**To:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>; Gaddy, Vincent <[Vincent.Gaddy@nrc.gov](mailto:Vincent.Gaddy@nrc.gov)>

**Cc:** Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>; Shaffer, Mark <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>; Dricks, Victor

<[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>

**Subject:** RE: California Next Week

Where is everyone staying?

---

**From:** Howell, Linda

**Sent:** Wednesday, August 14, 2019 1:58 PM

**To:** Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>; Morris, Scott <[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)>; Gaddy, Vincent <[Vincent.Gaddy@nrc.gov](mailto:Vincent.Gaddy@nrc.gov)>

**Cc:** Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>; Shaffer, Mark <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>; Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>

**Subject:** Re: California Next Week

The Monday meeting will include reps from all district offices except Harris'.

---

On: 14 August 2019 13:53,

"Warnick, Greg" <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)> wrote:

Most of us will arrive on Sunday. We'll need to be in touch to coordinate specific times for some of the activities listed below.

The rough schedule that I know is:

Monday

- Meet at hotel to prepare for Levin staff meeting and travel together to Oceanside
- Meet with Mike Levin's staff in the afternoon (2pm?)

Tuesday

- Meet at hotel to prepare for public meeting (time TBD)
- Head over to facility by 5pm
- Security briefing at 5:30pm
- Doors open to public at 6pm
- Meeting starts at 7pm
- Meeting ends 8:30-9pm

Linda and/or Angel will need to provide specific details of Levin staff meeting and other arrangements.

Greg

---

**From:** Morris, Scott

**Sent:** Wednesday, August 14, 2019 1:36 PM

**To:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Gaddy, Vincent <[Vincent.Gaddy@nrc.gov](mailto:Vincent.Gaddy@nrc.gov)>

**Cc:** Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>; Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>; Shaffer,



Mark <[Mark.Shaffer@nrc.gov](mailto:Mark.Shaffer@nrc.gov)>; Dricks, Victor <[Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov)>; Mitlyng, Viktoria  
<[Viktoria.Mitlyng@nrc.gov](mailto:Viktoria.Mitlyng@nrc.gov)>

**Subject:** California Next Week

**Importance:** High

Can you provide the latest "schedule of events" for our trip to SoCal next week?

***REGION IV VISION: "We maintain a culture of high trust to maximize opportunities for development and leverage teamwork for today's mission and tomorrow's challenges"***

**From:** [Brown, David](#)  
**To:** [Svinicki, Kristine](#)  
**Cc:** [Frazier, Alan](#); [Smith, Maxwell](#); [Bowman, Eric](#); [Kenney, Susan](#)  
**Subject:** FW: SONGS Unit 1 Reactor Pressure Vessel shipment  
**Date:** Wednesday, April 15, 2020 9:57:00 AM

---

Chairman,

This is additional information on the SONGS reactor vessel shipment to EnergySolutions, Clive, UT.

Dave

**From:** Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>  
**Sent:** Wednesday, April 15, 2020 9:19 AM  
**To:** Brown, David <David.Brown@nrc.gov>; Jessie, Janelle <Janelle.Jessie@nrc.gov>; Jones, Cynthia <Cynthia.Jones@nrc.gov>; Lav, Samantha Crane <samantha.lav@nrc.gov>  
**Cc:** Haney, Catherine <Catherine.Haney@nrc.gov>; Lopez-Santiago, Omar <Omar.Lopez-Santiago@nrc.gov>; Howell, Linda <Linda.Howell@nrc.gov>  
**Subject:** RE: SONGS Unit 1 Reactor Pressure Vessel shipment

Also, please note that the April 16<sup>th</sup> date is an estimated start date. SCE is in communications with RIV and will alert staff when the prep actually begins (it's anticipated that the delta, if any, will be about a week).

Kimyata Morgan-Butler, Ph.D.  
Executive Technical Assistant  
Office of the Executive Director for Operations  
US Nuclear Regulatory Commission  
301-415-0733

**From:** Morgan-Butler, Kimyata  
**Sent:** Wednesday, April 15, 2020 9:11 AM  
**To:** Brown, David <[David.Brown@nrc.gov](mailto:David.Brown@nrc.gov)>; Jessie, Janelle <[Janelle.Jessie@nrc.gov](mailto:Janelle.Jessie@nrc.gov)>; Jones, Cynthia <[Cynthia.Jones@nrc.gov](mailto:Cynthia.Jones@nrc.gov)>; Lav, Samantha Crane <[samantha.lav@nrc.gov](mailto:samantha.lav@nrc.gov)>  
**Cc:** Haney, Catherine <[Catherine.Haney@nrc.gov](mailto:Catherine.Haney@nrc.gov)>; Lopez-Santiago, Omar <[Omar.Lopez-Santiago@nrc.gov](mailto:Omar.Lopez-Santiago@nrc.gov)>; Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>  
**Subject:** SONGS Unit 1 Reactor Pressure Vessel shipment

Good morning,

I received questions from a few offices on the SONGS Unit 1 Reactor Pressure Vessel shipment by Southern California Edison (b)(5)

(b)(5) Below is the current status of the activities:

On April 16<sup>th</sup>, Southern California Edison (SCE) plans to begin preparing the SONGS Unit 1 Reactor Pressure Vessel (RPV) for shipment. SCE plans to load the RPV on a special



rail car and will temporarily store it in the owner-controlled area at SONGS. SCE plans to commence shipment of the RPV to an Energy Solutions owned disposal facility in Clive, Utah (the facility is licensed by Utah State) in late May. SCE is working on a communications plan. The shipment and storage of the SONGS Unit 1 RPV is consistent with the SCE decommissioning plan. RIV is providing oversight over the decommissioning activities which are progressing according to plan. RIV plans to issue a communication plan on the shipment and to have inspectors on site in late May to observe the final preparations prior to shipment.

Thanks,

Kim

Kimyata Morgan-Butler, Ph.D.  
Executive Technical Assistant  
Office of the Executive Director for Operations  
US Nuclear Regulatory Commission  
301-415-0733

**From:** [Brown, David](#)  
**To:** [Svinicki, Kristine](#)  
**Cc:** [Frazier, Alan](#); [Smith, Maxwell](#); [Bowman, Eric](#); [Kenney, Susan](#)  
**Subject:** FW: FYI-SONGS Crane Human Performance Issue on May 5th  
**Date:** Thursday, May 7, 2020 11:39:00 AM

---

Chairman,

FYI,

Dave

**From:** Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>  
**Sent:** Thursday, May 7, 2020 11:31 AM  
**To:** Brown, David <David.Brown@nrc.gov>; Jessie, Janelle <Janelle.Jessie@nrc.gov>; Jones, Cynthia <Cynthia.Jones@nrc.gov>; Lav, Samantha Crane <samantha.lav@nrc.gov>  
**Cc:** Haney, Catherine <Catherine.Haney@nrc.gov>; Lopez-Santiago, Omar <Omar.Lopez-Santiago@nrc.gov>; McIntyre, David <David.McIntyre@nrc.gov>  
**Subject:** FW: FYI-SONGS Crane Human Performance Issue on May 5th

Good morning,

For your awareness, please see the email below which provides detailed information on a notification that RIV received from Southern California Edison (SCE) on May 5, 2020, related to a human performance issue that took place while the licensee was loading a HI-TRAC transfer cask (with an empty canister) into the spent fuel pool's cask loading pit area in the SONGS Unit 3 fuel building. The licensee has implemented corrective actions and the RIV inspectors are engaging with SCE and will follow-up during their planned inspection later this month.

Let me know if you have any questions.

Thanks,

Kim

**From:** Brookhart, Lee <[Lee.Brookhart@nrc.gov](#)>  
**Sent:** Wednesday, May 06, 2020 4:23 PM  
**To:** Warnick, Greg <[Greg.Warnick@nrc.gov](#)>; Muessle, Mary <[Mary.Muessle@nrc.gov](#)>; Howell, Linda <[Linda.Howell@nrc.gov](#)>; Dricks, Victor <[Victor.Dricks@nrc.gov](#)>  
**Cc:** Smith, Chris <[Chris.Smith@nrc.gov](#)>; Simpson, Eric <[Eric.Simpson@nrc.gov](#)>; Steely, Chris <[Chris.Steely@nrc.gov](#)>; Anderson, Stephanie <[Stephanie.Anderson@nrc.gov](#)>  
**Subject:** SONGS Crane Human Performance Issue on May 5th

FYI,

Southern California Edison personnel contacted NRC inspectors this morning via telephone to inform the inspectors of a crane human performance issue that occurred late last night (May 5, 2020) in the Unit 3 fuel building. The licensee described, that while placing the HI-TRAC transfer cask (with an empty canister) into the spent fuel pool's cask loading pit area

a human performance event occurred. As the transfer cask was being set at the bottom of the loading pit, the crew had accidentally continued to lower the lift yoke and crane block/hook further than what was required. This resulted in the lift yoke beginning to tilt within the pool (approximated 10-20 degrees from vertical) and caused the crane's load block reeving and ropes to become somewhat slack. No contact was reported by the licensee of the rigging equipment (lifting yoke or crane load block) to the outside of the transfer cask nor the pool's loading pit's inner liner.

Once the crew became aware of the issue, the lowering operations were stopped and the crew took immediate corrective actions to place all equipment in a safe condition. The crane operator raised the load block to re-gain tension within the crane's ropes and the lift yoke was disengaged from the transfer cask. As the crew withdrew the crane's load block from the pool some damage was noted. A section of the metal guard (Trip plate) around the load block had become bent and one of the wire rope sections had moved outside its normal reeved position. The licensee then took actions to move the crane/rigging away from the cask loading pit area, make notifications, and initiated a condition report.

Licensee briefed me on the following corrective actions:

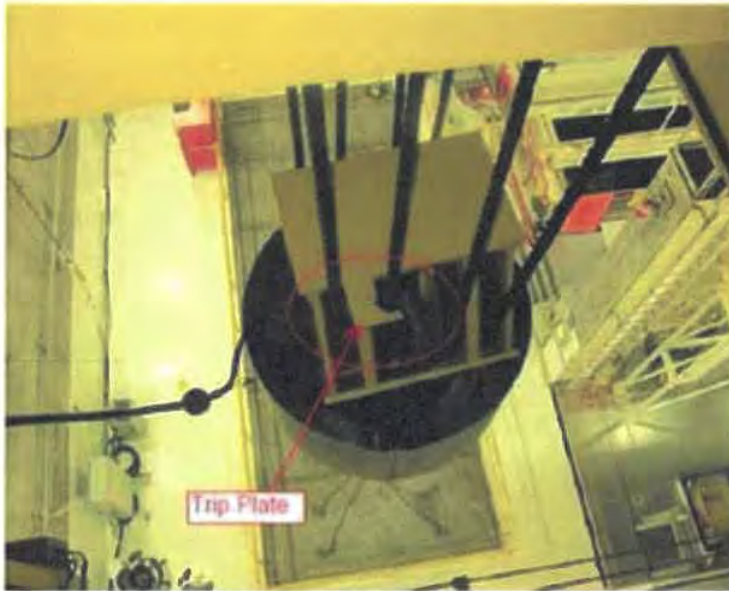
- Initiate notifications of the issue to Holtec Management, SCE Oversight and Management, and the Control Room
- Complete immediate actions to remove lift yoke from the crane
- Issue a stand-down on all lifting operations and tag out all equipment involved
- Perform a stand-down meeting
- Conduct Human Performance evaluations and fitness-for-duty assessments on the crew involved
- Issue Condition Report and get actions to assess components involved
- Workorder will perform
  - Full ANSI N14.6 quarterly inspection on the Lift Yoke
  - Repair crane's load block trip plate and ensure one wire rope section is properly reeved
  - Perform inspections and assessment by Whiting crane vendor on load block and full length of wire rope (vendor was already onsite and had just completed the annual maintenance on this crane earlier this week)
  - Full ASME B30.2 quarterly inspection and function tests on crane by crane vendor once repaired
  - Perform underwater camera inspection for damage on the Transfer Cask's load block trunnions (where Lift Yoke engages Transfer Cask)
- Conduct a lessons learned review and low level event investigation

The inspectors noted that the licensee appeared to be taking appropriate corrective actions. The inspectors requested a copy of the condition report and copies of pictures of the crane components. The inspectors plan on following up on the issue with licensee in the coming days to fully understand the incident.

Let me know if you have any questions,

Lee Brookhart

Below the first picture shows how the rope is supposed to be inside the trip plate (Correct/normal). The second picture shows how the trip plate was damaged and the rope was now located outside the bent trip plate (result of incident).



Correct: Wire Rope Inside the Trip Plate  
the Trip Plate

Incorrect: Wire Rope Outside



**From:** [Frazier, Alan](#)  
**To:** [Svinicki, Kristine](#)  
**Cc:** [Brown, David](#); [Smith, Maxwell](#); [Bowman, Eric](#)  
**Subject:** FW: SONGS: Unexpected Condition Identified in Unit 2 Spent Fuel Pool (SFP)  
**Date:** Friday, May 29, 2020 11:30:14 AM  
**Attachments:** [image001.png](#)

---

**From:** Lopez-Santiago, Omar <Omar.Lopez-Santiago@nrc.gov>

**Sent:** Friday, May 29, 2020 11:01 AM

**To:** Lav, Samantha Crane <samantha.lav@nrc.gov>; Jessie, Janelle <Janelle.Jessie@nrc.gov>; Brown, David <David.Brown@nrc.gov>; Jones, Cynthia <Cynthia.Jones@nrc.gov>

**Cc:** Frazier, Alan <Alan.Frazier@nrc.gov>; Powell, Amy <Amy.Powell@nrc.gov>; Cade, Steven <Steven.Cade@nrc.gov>; Kanatas, Catherine <Catherine.Kanatas@nrc.gov>; Haney, Catherine <Catherine.Haney@nrc.gov>; Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>

**Subject:** SONGS: Unexpected Condition Identified in Unit 2 Spent Fuel Pool (SFP)

All,

In 1991, the licensee re-racked the SFPs in Units 2 and 3. The bottom of SFPs needed to be cleaned as part of the re-rack process. A couple areas of concern existed where the licensee had previously reconstituted fuel in the past. In these areas, the licensee used a vacuum device to collect fuel debris, put the filters and debris into bags, and then put the bags into debris receptacles (trash cans). These trash cans have been sitting within a storage cell in each SFP for the past 29 years.

The current plan was to load the trash can into the final Multi-Purpose Canisters (MPCs) for each unit. Earlier this week, when preparing for the loading of the final MPC in Unit 2, workers were moving the trash can to another cell and noted an unexpected vivid green substance plated on the outside of the receptacle. Workers also noted a green trail behind the trash can during movement. The licensee believes that the unexpected green substance may be some sort of metallic corrosion product (e.g. ferric oxide) and are presently evaluating.

The plan to load the final MPC in Unit 2 next week has been suspended until a full evaluation is completed and corrective actions have been implemented. The licensee will instead proceed with MPC loading and processing in Unit 3 (eight MPCs remain).

Region IV is engaged with the licensee to gain a better technical understanding of the problem and what corrective actions the licensee plans to take to resolve the issue. Region IV, in coordination with OCA and NMSS, will brief Representative Levin's staff in the afternoon.

I'll share more details as they become available.

Thanks!

Omar R. López-Santiago  
Executive Technical Assistant



Office of the Executive Director for Operations  
OWFN-16A47  
Office: 301-415-0508  
Mobile: (b)(6)



**From:** [Brown, David](#)  
**To:** [Svinicki, Kristine](#)  
**Cc:** [Frazier, Alan](#); [Smith, Maxwell](#); [Bowman, Eric](#)  
**Subject:** FW: Follow-up on three topics  
**Date:** Wednesday, June 3, 2020 8:53:00 AM

---

Chairman,  
Additional detail on SONGS SFP follows.

Dave

**From:** Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>  
**Sent:** Wednesday, June 3, 2020 8:49 AM  
**To:** Brown, David <David.Brown@nrc.gov>; Jessie, Janelle <Janelle.Jessie@nrc.gov>; Jones, Cynthia <Cynthia.Jones@nrc.gov>; Lav, Samantha Crane <samantha.lav@nrc.gov>  
**Subject:** RE: Follow-up on three topics

Also, I received clarification on what is referred to as "trash can." The trash can is a "debris receptacle" made of a stainless steel mesh bag (which is the same height of a fuel bundle). A vacuum is used to suck up the debris in the spent fuel pool and the bag collects the debris (which is considered high-level waste). The last multipurpose cannister always contains an area of geometric size to store the debris receptacles (trash can) prior to the cannister being moved to the ISFSI pad for storage.

**From:** Morgan-Butler, Kimyata  
**Sent:** Wednesday, June 03, 2020 8:37 AM  
**To:** Brown, David <[David.Brown@nrc.gov](#)>; Jessie, Janelle <[Janelle.Jessie@nrc.gov](#)>; Jones, Cynthia <[Cynthia.Jones@nrc.gov](#)>; Lav, Samantha Crane <[samantha.lav@nrc.gov](#)>  
**Subject:** Follow-up on three topics

Good morning,

I have a few follow-up items.

1. (b)(5)



2. Related to the question on the contamination of the SONGS Unit 2 SFP, I received the following from staff:

The trash can remains in the spent fuel pool while they evaluate and perform corrective actions. The licensee was moving it to an adjacent cell in the spent fuel pool grid to have access to the cell where the trash can had been stored for many

years. The access to this storage location was necessary to perform an inspection of the area to confirm that it was clear of all material to support their final verification that the pool is empty when the final spent fuel canister is loaded and moved to the ISFSI pad.

3. (b)(5)
- 

Thanks,

Kim

Kimyata Morgan-Butler, Ph.D.  
Executive Technical Assistant  
Office of the Executive Director for Operations  
US Nuclear Regulatory Commission  
301-415-0733

**From:** [Brown, David](#)  
**To:** [Svinicki, Kristine](#)  
**Cc:** [Frazier, Alan](#); [Smith, Maxwell](#); [Bowman, Eric](#)  
**Subject:** FW: Follow-up on three topics  
**Date:** Wednesday, June 3, 2020 8:45:00 AM  
**Attachments:** [Non Responsive Record](#)

Both attachments, totally 134 pages, are not related to SONGS and are therefore identified as "non-responsive records"

Chairman,  
This is additional information following yesterday's Materials Assistants' meeting.

Dave

**From:** Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>  
**Sent:** Wednesday, June 3, 2020 8:37 AM  
**To:** Brown, David <David.Brown@nrc.gov>; Jessie, Janelle <Janelle.Jessie@nrc.gov>; Jones, Cynthia <Cynthia.Jones@nrc.gov>; Lav, Samantha Crane <samantha.lav@nrc.gov>  
**Subject:** Follow-up on three topics

Good morning,

I have a few follow-up items.

1. (b)(5)

2. Related to the question on the contamination of the SONGS Unit 2 SFP, I received the following from staff:

The trash can remains in the spent fuel pool while they evaluate and perform corrective actions. The licensee was moving it to an adjacent cell in the spent fuel pool grid to have access to the cell where the trash can had been stored for many years. The access to this storage location was necessary to perform an inspection of the area to confirm that it was clear of all material to support their final verification that the pool is empty when the final spent fuel canister is loaded and moved to the ISFSI pad.

3. (b)(5)

(b)(5)



Thanks,

Kim

Kimyata Morgan-Butler, Ph.D.  
Executive Technical Assistant  
Office of the Executive Director for Operations  
US Nuclear Regulatory Commission  
301-415-0733



**From:** [Brown, David](#)  
**To:** [Jessie, Janelle](#)  
**Subject:** FW: Follow-up on three topics  
**Date:** Thursday, June 4, 2020 10:58:00 AM  
**Attachments:** [Non Responsive Record](#)

Attachments same to email dated June 3, 2020

FYI

**From:** Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>  
**Sent:** Wednesday, June 3, 2020 8:37 AM  
**To:** Brown, David <David.Brown@nrc.gov>; Jessie, Janelle <Janelle.Jessie@nrc.gov>; Jones, Cynthia <Cynthia.Jones@nrc.gov>; Lav, Samantha Crane <samantha.lav@nrc.gov>  
**Subject:** Follow-up on three topics

Good morning,

I have a few follow-up items.

1. [Non-Responsive Record](#)

2. Related to the question on the contamination of the SONGS Unit 2 SFP, I received the following from staff:

The trash can remains in the spent fuel pool while they evaluate and perform corrective actions. The licensee was moving it to an adjacent cell in the spent fuel pool grid to have access to the cell where the trash can had been stored for many years. The access to this storage location was necessary to perform an inspection of the area to confirm that it was clear of all material to support their final verification that the pool is empty when the final spent fuel canister is loaded and moved to the ISFSI pad.

3. [Non-Responsive Record](#)

Non-Responsive Record

Thanks,

Kim

Kimyata Morgan-Butler, Ph.D.  
Executive Technical Assistant  
Office of the Executive Director for Operations  
US Nuclear Regulatory Commission  
301-415-0733

**From:** [Brown, David](#)  
**To:** [Svinicki, Kristine](#)  
**Cc:** [Frazier, Alan](#); [Smith, Maxwell](#); [Bowman, Eric](#)  
**Subject:** FW: Congressional Inquiries (Rep. Levin) RE: NRC Briefing on SONGS Unexpected Condition Identified in Unit 2 SFP  
**Date:** Thursday, June 4, 2020 2:57:00 PM

---

Chairman,  
FYI,

Dave

**From:** Morgan-Butler, Kimyata <Kimyata.Morgan-Butler@nrc.gov>  
**Sent:** Thursday, June 4, 2020 1:16 PM  
**To:** Brown, David <David.Brown@nrc.gov>; Jessie, Janelle <Janelle.Jessie@nrc.gov>; Jones, Cynthia <Cynthia.Jones@nrc.gov>; Lav, Samantha Crane <samantha.lav@nrc.gov>  
**Cc:** Lopez-Santiago, Omar <Omar.Lopez-Santiago@nrc.gov>  
**Subject:** FW: Congressional Inquiries (Rep. Levin) RE: NRC Briefing on SONGS Unexpected Condition Identified in Unit 2 SFP

Hi all,

Staff briefed Rep. Levin's staff on Monday related the unexpected condition at the SONGS Unit 2 spent fuel pool. Rep. Levin's staff asked a number of follow-up questions. I believe that the questions and answers would be of interest to you. Staff plans on providing the following responses:

1. *What materials are in the debris receptacle? Does it include spent fuel/fuel pellets?*

The debris receptacles contain several fine mesh stainless steel bags that were used as vacuum filters. The vacuum/cleaning of the spent fuel pool in the early 1990's captured various fuel detritus, and various small unquantifiable foreign materials from the spent fuel pool.

2. *Is the debris receptacle sealed? Is it water tight?*

No, the debris receptacle is not watertight and is designed with small holes such that spent fuel pool water completely covers the contents. The debris receptacle is approximately 8 inches square, and 15 feet long. Along the long axis, a series of small pencil-sized holes permit water into/out of the receptacle.

3. *Given the public concerns around canisters and corrosion, we think that this could end up getting a lot of attention. Why is this particular corrosion a concern?*

As part of multi-purpose canister (MPC) processing, the MPC is completely sealed (welded shut) and its internals are filled with an inert gas. There is no moisture or mechanism to cause corrosion within the MPC. With the inert environment, no additional corrosion can take place nor will the pre-existing corrosion products adversely affect the MPC. Further, the entire debris receptacles are placed into

designated damaged fuel canister inserts, specifically designed as another enclosure within the MPC.

4. *What is the hazard associated with the corrosion? What could happen if the situation goes wrong?*

The debris receptacle walls were not challenged by the observed corrosion. The corrosion was caused by the fine mesh stainless steel filters, whose only purpose was to collect and conduct debris from the pool vacuuming activities into the receptacles. Debris receptacles are still serving their function to house and control the debris.

5. *If it's found that conditions in the pools were different than anticipated, thus causing the corrosion, is there a concern that Unit 2 fuel assemblies could be affected in some way?*

Spent Fuel Pool parameters (including chemistry, clarity, illumination, temperature, and boron content) are very tightly controlled by the plant's technical specifications and periodically independently reviewed by the NRC inspectors. The spent fuel pools, for both Unit 2 and Unit 3 are in compliance with those specifications and there is not a concern regarding the fuel.

6. *Are you looking at the Unit 3 pool for similar issues?*

Yes, unit 3 was inspected and was found to have similar corrosion products on the debris receptacle in that spent fuel pool.

Best,

Kim

**From:** Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>

**Sent:** Tuesday, June 02, 2020 5:04 PM

**To:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>; Kock, Andrea <[Andrea.Kock@nrc.gov](mailto:Andrea.Kock@nrc.gov)>; Regan, Christopher <[Christopher.Regan@nrc.gov](mailto:Christopher.Regan@nrc.gov)>

**Cc:** Muesle, Mary <[Mary.Muesle@nrc.gov](mailto:Mary.Muesle@nrc.gov)>

**Subject:** Congressional Inquiries (Rep. Levin) RE: NRC Briefing on SONGS Unexpected Condition Identified in Unit 2 SFP

Hello Everyone:

Jonathan and Kyle have followed-up with additional inquiries based on briefing yesterday. They would like to have our answers by COB tomorrow or first thing Thursday.

I can ask for additional time if necessary. Your help is much appreciated.

Thanks.

Angel D. Moreno  
Congressional Affairs Officer

Office of Congressional Affairs  
U.S. Nuclear Regulatory Commission  
301.415.1697 (w)  
(b)(6) (c)  
[angel.moreno@nrc.gov](mailto:angel.moreno@nrc.gov)

**From:** Gilbert, Jonathan <[Jonathan.Gilbert@mail.house.gov](mailto:Jonathan.Gilbert@mail.house.gov)>  
**Sent:** Tuesday, June 02, 2020 5:06 PM  
**To:** Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>; Krahel, Kyle <[Kyle.Krahel@mail.house.gov](mailto:Kyle.Krahel@mail.house.gov)>  
**Subject:** [External\_Sender] RE: RE: RE: Re: NRC Briefing RE: SONGS Unexpected Condition Identified in Unit 2 SFP

Hi Angel – Kyle and I reviewed yesterday's conversation and have some additional questions that we'd like answers to. Please see below.

1. What materials are in the debris receptacle? Does it include spent fuel/fuel pellets?
2. Is the debris receptacle sealed? Is it water tight?
3. Given the public concerns around canisters and corrosion, we think that this could end up getting a lot of attention. Why is this particular corrosion a concern?
4. What is the hazard associated with the corrosion? What could happen if the situation goes wrong?
5. If it's found that conditions in the pools were different than anticipated, thus causing the corrosion, is there a concern that Unit 2 fuel assemblies could be affected in some way?
6. Are you looking at the Unit 3 pool for similar issues?

Thanks, as always.

Jonathan



**From:** [Dodson, Douglas](#)  
**To:** [Frazier, Alan](#); [Powell, Amy](#); [Cade, Steven](#); [Kanas, Catherine](#)  
**Cc:** [Brown, David](#); [Jessie, Janelle](#); [Jones, Cynthia](#); [Crane, Samantha](#); [Fong, CJ](#); [Orders, William](#); [Krsek, Robert](#); [Bowman, Eric](#); [Whitman, Jennifer](#); [Morgan-Butler, Kimyata](#)  
**Subject:** San Onofre Public Meeting Slides and Questions and Responses  
**Date:** Tuesday, August 20, 2019 12:30:25 PM  
**Attachments:** [August 20 Public Meeting Slides Final.pdf](#)

|                                                    |
|----------------------------------------------------|
| Attachment publicly<br>available at<br>ML19234A008 |
|----------------------------------------------------|

Hello,

The final slides for the San Onofre Nuclear Generating Station (SONGS) public meeting are attached. Additionally, questions and responses are included as follows:

- Question: Is there any security-related information conveyed in any of the images?

Response: There is no security-related information in any of the images. The images, many of which were provided by the licensee, were reviewed by the staff and the licensee to ensure the images could be provided to the public.

- Question: Is the staff planning to discuss at the public meeting the inspection observations that were communicated to the Commission via email?

Response: Yes, the staff intends to discuss the items characterized as observations.

- Question: Is the staff incorporating lessons-learned from the August 19, 2019, government-to-government meeting into the presentation and preparedness activities for the public meeting on August 20, 2019?

Response: The staff indicated that the meeting went very well on August 19, 2019, and there were no noted necessary follow-up actions. The NRC staff noted that there were a few clarifying questions, and appreciation was expressed for the NRC's oversight and engagement efforts. Hence, no new lessons-learned were noted or expected to be incorporated into the presentation or preparedness activities.

For awareness, we have also been informed that the public meeting is not going to be televised but is expected to be recorded.

Please let me know if you have any questions.

Thanks,

Doug

**Doug Dodson**

Executive Technical Assistant – Regions I, II, III, & IV (Rotation)  
Office of the Executive Director for Operations  
U.S. Nuclear Regulatory Commission

Office: O16-A49

Phone: 301-415-0120

**From:** [Storch, Jaclyn](#)  
**To:** [Brown, David](#)  
**Subject:** Fw: Questions on response to Levin  
**Date:** Sunday, December 1, 2019 8:25:08 AM  
**Attachments:** [Letter to M Levine redline 11.29.19.docx](#)  
[SKM\\_C36819112507590.pdf](#)  
[image001.png](#)

---

Good morning, Mr. Brown!

Attached is the staff's response to your questions raised in in regard to the Levin letter. Please let me know if you have any additional questions.

---

**From:** Holiday, Sophie <Sophie.Holiday@nrc.gov>  
**Sent:** Friday, November 29, 2019 10:13:11 AM  
**To:** Storch, Jaclyn <Jaclyn.Storch@nrc.gov>; Rodriguez-Luccioni, Hector <Hector.Rodriguez-Luccioni@nrc.gov>  
**Cc:** Shane, Raeann <Raeann.Shane@nrc.gov>; Shoemaker, Mirabelle <Mirabelle.Shoemaker@nrc.gov>; Lewis, Robert <Robert.Lewis@nrc.gov>; Lubinski, John <John.Lubinski@nrc.gov>; Marcano, Damaris <Damaris.Marcano@nrc.gov>; Kock, Andrea <Andrea.Kock@nrc.gov>; Regan, Christopher <Christopher.Regan@nrc.gov>  
**Subject:** RE: Questions on response to Levin

Good Morning Jacki and Hector:

We weren't sure as to whether it was appropriate to provide our answers directly to the Chairman's office; therefore, I'm providing them to you.

---

The Chairman's office asked the following two questions (our response in red):

1. *The second paragraph of the answer to question 5 states that inspectors observed, " ... (6) loading of a fuel canister containing damaged fuel;" Was this loading of actual damaged fuel or an item related to the dry runs?*  
**Yes, the staff observed loading of actual damaged fuel. This was not a dry run.**
2. *The last paragraph of the answer to question 5 states, "RIV management has communicated with external stakeholders that the NRC plans to have an onsite presence for approximately 1 week per month to inspect fuel loading activities." Please clarify whether this communication stated "1 week per month" or just "once per month."*  
**RIV management has communicated with external stakeholders that the NRC plans to have an onsite presence once per month. The duration of our inspections can vary from a few days to a week, depending on what activities are being observed/conducted.**

The staff recommends revising the letter response (redline attached) to address both questions. Specifically, the staff recommends revising:

1. The second paragraph in Number 5 for clarity, which resulted in renumbering



because staff recommends combining items 6 and 7; and

2. The last paragraph in Number 5 to clarify the inspection frequency.

Below is the excerpt of the revised text for Number 5 for your convenience:

5. **How often have NRC inspectors been onsite at SONGS since [the *multi-purpose canister*] loading has resumed? Please provide specific dates and time ranges.**

The NRC has been performing unannounced inspections at SONGS since the return to fuel transfer operations in July 2019. The NRC performed 10 site visits from July 2019 through October 2019 to inspect key dry cask loading operations and other activities associated with the *Independent Spent Fuel Storage Installation* (ISFSI). These inspections took place on or about the following dates in 2019: July 1-3, July 8, July 10-11, July 15-20, July 22-28, August 12-14, August 19-23, August 28, September 24, and October 21-25.

During these inspections, NRC inspectors observed key portions of fuel loading activities, including canister fuel loading, transport, and downloading. Specifically, the NRC performed inspections that included (1) a review of SCE/Holtec dry (practice) runs; (2) training of dry cask storage personnel; (3) transfer and downloading of canister #30 from the Unit 3 spent fuel pool into the UMAX ISFSI; (4) loading and downloading of canister #31 into the UMAX ISFSI; (5) Holtec canister flushing activities on site; (6) loading and downloading of canister #32 into the UMAX ISFSI, which was the first canister that contained damaged fuel assemblies; (7) welding and processing of canister #34, and preparations to move canister #35; and (8) movement, welding, and processing of canister #37 and preparations for canister #38 activities.

Additionally, three NRC inspectors performed a quarterly decommissioning inspection on August 26-29, 2019. The results of this inspection are documented in NRC Inspection Report 05000361/2019-004 and 05000362/2019-004, dated September 25, 2019 (ADAMS Accession Number ML19267A078).

Region IV management has communicated with external stakeholders that the NRC plans to have an **inspector** onsite **once per month** to inspect fuel loading activities. Region IV will re-evaluate inspection frequency later this year, based on licensee performance. This level of inspection exceeds the NRC's routine ISFSI operation program safety inspection frequency, which is once every 2 years.

Thank you the opportunity to provide clarification. If you have any questions, please contact Mirabelle Shoemaker at 301-415-7363.

*-Sophie*

Sophie Holiday

Technical Assistant (*Rotation*)

Division of Decommissioning, Uranium Recovery,  
and Waste Programs (DUWP)  
Office of Nuclear Material Safety and Safeguards (NMSS)  
U.S. Nuclear Regulatory Commission  
Phone: (301) 415-7865  
Office: TWFN-5E12

**From:** Storch, Jaclyn

**Sent:** Monday, November 25, 2019 9:10 AM

**To:** Brown, David <David.Brown@nrc.gov>; Shoemaker, Mirabelle <Mirabelle.Shoemaker@nrc.gov>

**Cc:** Shane, Raeann <Raeann.Shane@nrc.gov>; Holiday, Sophie <Sophie.Holiday@nrc.gov>;  
Rodriguez-Luccioni, Hector <Hector.Rodriguez-Luccioni@nrc.gov>

**Subject:** Questions on response to Levin

Hello all!

Attached are two questions from Mr. David Brown, Chairman's office, pertaining to the response drafted in response Congressman Levin's October 17, 2019, letter.

Please work directly with Mr. Brown to address his questions, and cc' me on all correspondence including revisions to said draft letter.

Thank you, everyone!

J

*Jaclyn Storch*  
*Executive Technical Assistant*  
*Office of the Executive Director for Operations*  
*US Nuclear Regulatory Commission*  
*Phone: 301-415-2877 - Office: 017-A01*  
*Hours: 5:00 a.m. -3:00 p.m.*





**From:** [Lopez-Santiago, Omar](#)  
**To:** [Brown, David](#); [Jones, Cynthia](#); [Jessie, Janelle](#); [Lav, Samantha Crane](#)  
**Cc:** [Morgan-Butler, Kimyata](#)  
**Subject:** NRC inspection activities at SONGS  
**Date:** Wednesday, May 27, 2020 12:54:42 PM  
**Attachments:** [image001.png](#)

---

All,

We had an NRC inspector on-site at SONGS this past week to observe key activities related to spent fuel transfer operations and decommissioning. Specifically, the NRC inspector observed canister downloading to the storage location on the ISFSI pad, performed on-site follow-up for the fuel building crane lowering issue that occurred on May 5<sup>th</sup>, inspected final preparations for the railcar shipment of the Unit 1 reactor pressure vessel, and watched the actual shipment of the pressure vessel from the SONGS location.

The inspector observed good safety performance by the licensee and contractors and did not identify any issues of concern. Additionally, the NRC Region IV based inspectors continue to perform remote inspections of fuel transfer operations. The results of these inspections will be documented in inspection reports that will be issued in the coming months.

Thanks.

Omar R. López-Santiago  
Executive Technical Assistant  
Office of the Executive Director for Operations  
OWFN-16A47  
Office: 301-415-0508  
Mobile: (b)(6)



**From:** [Morgan-Butler, Kimyata](#)  
**To:** [Brown, David](#); [Quichocho, Jessie](#); [Jones, Cynthia](#); [Lav, Samantha Crane](#); [Marsh, Molly](#)  
**Subject:** Update on SONGS Canister Corrosion  
**Date:** Wednesday, June 17, 2020 12:11:27 PM

---

Good morning,

(b)(5) SCE is still on track to empty the SFP in Unit 3 by the end of July. The latest information is below. This information has been shared internally and will be shared with Representative Levin's (D-CA) office.

Let me know if you have any questions.

Thanks,

Kim

**From:** Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>  
**Sent:** Wednesday, June 17, 2020 10:49 AM  
**Subject:** RE: Congressional Inquiry - Rep. Mike Levin's Office RE: SONGS Canister Corrosion

The latest information and answers to Jonathon's questions were communicated internally with the attached email update I provided June 4.

The chemical analysis and engineering evaluation were completed and the licensee concluded that the debris receptacles (TR-4 in Unit 2 and TR-5 in Unit 3 were found with the corrosion condition), and their contents, are compatible with the multi-purpose canister (MPC) and won't adversely affect any design function. The review found that the TR-4/5 contents, including the corrosion products, are acceptable for placement in the Part 72 licensed canister.

The NRC's independent review confirmed the licensee's conclusions.

SCE resumed loading activities in Unit 2 spent fuel pool on June 4 and MPC processing and download to the storage location occurred last week.

Thanks,

Greg

**Greg Warnick**  
Chief, Reactor Inspection Branch  
NRC Region IV  
Ofc 817 200-1249

**From:** Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>  
**Sent:** Wednesday, June 17, 2020 9:06 AM

**To:** Howell, Linda <[Linda.Howell@nrc.gov](mailto:Linda.Howell@nrc.gov)>; Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>  
**Cc:** Kock, Andrea <[Andrea.Kock@nrc.gov](mailto:Andrea.Kock@nrc.gov)>; Regan, Christopher <[Christopher.Regan@nrc.gov](mailto:Christopher.Regan@nrc.gov)>;  
Muessle, Mary <[Mary.Muessle@nrc.gov](mailto:Mary.Muessle@nrc.gov)>  
**Subject:** Congressional Inquiry - Rep. Mike Levin's Office RE: SONGS Canister Corrosion

Hello Linda and Greg,

Jonathan Gilbert with **Rep. Mike Levin's (D-CA)** office is seeking a status update on the SONGS canister corrosion issue:

- What's the latest here? Did the chemical work come back? Has SFP 2 loading resumed?

Your help in a response is much appreciated.

Thanks.

**Angel D. Moreno**  
Congressional Affairs Officer  
Office of Congressional Affairs  
U.S. Nuclear Regulatory Commission  
301.415.1697 (w)  
(b)(6) c)  
[angel.moreno@nrc.gov](mailto:angel.moreno@nrc.gov)

---

**From:** (b)(6)  
**Sent:** Tuesday, June 25, 2019 12:54 PM  
**To:** CHAIRMAN Resource  
**Subject:** [External\_Sender] SONGS inspector

Dear Honorable Svinicki (Kristine),

(b)(6)  
(b)(6) This morning I read in the San Diego Union Tribune of Rep. Mike Levin's request for an inspector to oversee canister transfer at SONGS (link below). I live within (b)(6) of the SONGS facility and I echo his concern and request for an inspector. I have the utmost respect for Rep. Levin's expertise in these matters and his concern for his constituents. I strongly urge you to reconsider his request for an inspector.

<https://enewspaper.sandiegouniontribune.com/infinity/sdut/default.aspx?edid=c9656357-b8e4-4a95-93a0-a1b7934ea608>

Sincerely,

(b)(6)



# NRC rebuffs request for full-time SONGS inspector

Rep. Levin seeking oversight when transfer of nuclear fuel resumes



A sample canister at the San Onofre Nuclear Generating Station. The 50-ton canisters contain fuel assemblies of nuclear waste. (Rob Nikolewski U-T)

By Rob Nikolewski

The U.S. Nuclear Regulatory Commission has turned down a request from Rep. Mike Levin, D-San Juan Capistrano, to employ a full-time inspector when the San Onofre Nuclear Generating Station, known as SONGS for short, resumes transferring heavy canisters filled with nuclear waste from one area of the shuttered plant to another.

After Levin made the request in April to the independent federal agency tasked with protecting public health and safety related to nuclear energy, the NRC's chairwoman Kristine Svinicki responded earlier this week with a letter saying a full-time inspector "is not necessary" and not "necessarily the best method for effective regulatory oversight at the site."

The letter did not mention cost as a factor but said activities at a plant going through the decommissioning process "present fewer radiological and/or nuclear safety hazards" than a plant that is producing electricity.



Levin responded Friday with his own letter, saying the decision “does not seem to account for the unique loading campaign” planned by the operators of the plant, Southern California Edison, also known as SCE. Levin urged Svinicki to change her mind.

“(Y)ou have decided it is unnecessary to assign a full-time inspector to SONGS while being aware of the dubious record at the site and knowing how such an action would help to rebuild the public trust,” the first-year congressman wrote. Levin cited a list of incidents at SONGS, including records showing falsified fire safety data and other citations from 2008 and a leak in a steam generator tube in 2012 that led to the closing of the plant.

Last August, a 50-ton canister filled with nuclear waste was left suspended inside a storage cavity about 18 feet from the floor for about 45 minutes while being moved from wet storage pools at SONGS to a newly constructed dry storage facility.

The incident, first brought to light by a worker, led to a special inspection by a team from the NRC. The agency fined SCE \$116,000, and the utility says it has instituted a series of safety and workplace improvements for itself and its chief contractor, Holtec International, to ensure similar mishaps don’t happen again.

“These incidents still loom large in the consciousness of my constituents who live near SONGS,” Levin wrote. “They hear about how the most recent ‘near-miss’ was caused by deficiencies in SCE’s training, equipment, procedures and oversight, and they see how the incident fits into a larger pattern of behavior.”

No transfers have been made since August incident, but last month, the NRC gave SCE approval to resume operations. Plant officials have not set a date when canisters will start moving again but an announcement is expected soon. NRC officials say they will conduct a series of surprise, unannounced inspections.

SCE spokesman John Dobken said the NRC’s inspections and assessments of canisters since last August “have confirmed the improvements we have made to fuel transfer operations are on target and strengthen our overall program” and added the utility “welcomes any oversight” the NRC deems appropriate.

In his letter, Levin asked Svinicki who has the statutory authority to assign a full-time inspector to SONGS. He also asked if the NRC has the funding available to do so and how much it would cost.

rob.nikolewski@

sduniontribune.com

(619) 293-1251

Twitter: @robnikolewski

---

**From:** (b)(6)  
**Sent:** Tuesday, March 26, 2019 7:25 PM  
**To:** patricia.wen@globe.com; todd.wallack@globe.com; spotlight@globe.com  
**Cc:** CHAIRMAN Resource; CMRBARAN Resource; CMRBurns Resource; CMRCaputo Resource; CMRWright Resource  
**Subject:** [External\_Sender] Fw: March 25, 2019 San Onofre Notice of Violation Webinar on Holtec problems and recommendations

Dear Spotlight investigative reporting,

Holtec International is trying to buy the Pilgrim Nuclear Power Plant, so Holtec can be the primary recipient of the decommissioning funds set aside by the Massachusetts rate payers for decommission. If this were to take place it would be a grave error for the people of Massachusetts as the Holtec dry storage system is defective and could cause serious issues for the state of Massachusetts.

Please investigate Holtec International and the NRC and learn the details of this poorly engineered system that is being approved and promoted by the NRC.

----- Forwarded Message -----

**From:** (b)(6)  
**To:** Mike Levin <mike@mikelevin.org>; Hutt, Heather (Harris) <heather\_hutt@harris.senate.gov>; Joseph Street <Joseph.Street@coastal.ca.gov>; Commissioner Annie Caputo <CMRCaputo@nrc.gov>; Commissioner Jeff Baran <CMRBARAN@nrc.gov>; Commissioner David A Wright <CMRWright@nrc.gov>; Chairman NRC <chairman@nrc.gov>  
**Cc:** Decommission <decommission@sanonofre.com>; NFC <Nirs@sanonofre.com>; Ace Hoffman <rhoffman@animatedsoftware.com>; (b)(6)  
(b)(6) Shari Horne <SHorne@CityofLagunaWoods.org>; Teri Sforza <tsforza@ocregister.com>; Bruce Martin <dbmartin@zianet.com>; Jeff McDonald <jeff.mcdonald@utsandiego.com>; Robert "Bob" Halstead <bhalstead@nuc.state.nv.us>; Marvin Resnikoff <radwaste@rwma.com>; (b)(6) Jordan Ingram <jordan@coastnewsgroup.com>; Eric Heinz <eheinz@picketfencemedia.com>; Andrew Griffith <ANDREW.GRIFFITH@nuclear.energy.gov>; Justin Cochran Ph. D <Justin.Cochran@energy.ca.gov>; JW August 10news San Diego <JW.August@10news.com>  
**Sent:** Monday, March 25, 2019, 3:52:14 PM PDT  
**Subject:** March 25, 2019 San Onofre Notice of Violation Webinar on Holtec problems and recommendations

All parties admit the design of the Holtec downloading system causes some damage to the walls of all the canisters. Edison is claiming the damage is minor scratches and that this has no significant impact. However, the NRC is not convinced of the amount of damage nor the impact and will be doing their own analysis. Therefore, loading of more canisters is still on hold.

The NRC admitted in a previous webinar that the damage is a problem, but said it's not an "immediate" problem. However, we cannot kick these cans down the road and hope they have a solution in the future.

This is another Edison billion dollar boondoggle for California.

As NRC engineering staff knows, even minor scratches can shorten the life of these canisters. The NRC admitted in a previous webinar that the canister walls are gouged. The question is, how bad are the gouges. And since there is no method to find or repair the gouges, this is an unacceptable situation. Also, once cracks start in canisters, the cracks continue to grow through the wall. The fuse is lit, yet no one knows how long before they have major radioactive leaks or hydrogen gas explosions -- and no plan to prevent or stop leaks. In an August 5, 2014 meeting the NRC admitted once cracks start they can grow through the wall in 16 years. In hotter canisters, cracks grow much faster (double the crack growth rate for every 10 degree increase in temperature). This Holtec system must be recalled. It's clearly a lemon. These are pressure vessels, which means even partial gouges and cracks can cause these canisters to fail.

Subrata Chakraborty, Tom English and Len Hering co-wrote a paper on this issue stating gouging of canister walls is likely. Canisters should be inspected for damage, yet that has not been done and the NRC admits they have no method to do this at this time.



San Onofre Nuclear Waste Problems, Tom English, Ph.D., Samuel Lawrence Foundation, Subrata Chakraborty, Ph.D., UCSD, Dept. of Chemistry and Biochemistry, Rear Admiral Len Hering Sr. USN (ret), January 2019

*...Most serious of the issues facing the interim storage of nuclear waste at S.O.N.G.S. include the gouging damage to fully-loaded steel canisters upon downloading into the storage vault. These 54-ton thin-walled steel canisters are loaded with nuclear waste in wet storage – spent fuel pools – and are transported to the on-site concrete storage vault, adjacent to the reactor domes. With the Brinell hardness scale calculations our team demonstrates the depth and width of canister gouges upon downloading into the storage system. The current downloading procedure and on-site storage configuration provides the factors necessary to create gouges in the external steel walls of the canisters: operators have no visibility of the canister during downloading and precise adjustments to canister orientation cannot be made. These gouges remain undetected and unrepaired due to the lack of thorough inspection and monitoring at the San Onofre Independent Spent Fuel Storage Installations (ISFSIs). The preliminary findings are found in this report...*

[https://docs.wixstatic.com/ugd/af0436\\_29d0ec897e1f44178d12e2dbc63161dd.pdf](https://docs.wixstatic.com/ugd/af0436_29d0ec897e1f44178d12e2dbc63161dd.pdf)

The Holtec system the NRC approved states in the Holtec Final Safety Analysis Report (FSAR) there is no risk of scratching or gouging of the canister walls from the downloading system. See below statement from the Holtec HI-STORM UMAX Final Safety Analysis Report. However, Holtec submitted a 10 CFR 72.48 change to the FSAR to allow scratches. The 72.48 process allows Holtec and Edison to make certain technical changes without approval from the NRC. In the March 25, 2019 webinar today the NRC stated Edison should not have implemented this change under the 10 CFR 72.48 process, so restart of loading is on hold.

FSAR PDF page 541:

**9.5 REGULATORY COMPLIANCE**

*vii. Because the MPC [canister] insertion (and withdrawal) occurs in the vertical configuration with ample lateral clearances, there is no risk of scratching or gouging of the MPC's external surface (Confinement Boundary). Thus the ASME Section III Class 1 prohibition against damage to the pressure retaining boundary is maintained.*

<https://www.nrc.gov/docs/ML1819/ML18192B094.pdf>

The 72.48 process is very similar to the 50.59 process where Edison changed the design of the four replacement steam generators without NRC review and approval. This resulted in the permanent shutdown of both San Onofre reactors and a radioactive release into the environment. Edison hid the fact the radiation was released into the environment for 17 days.

There are already 29 Holtec thin-wall canisters (only 5/8" thick) loaded and no one has a clue their actual condition. This is unacceptable. The last thing we need is to load and gouge more canisters. Instead of "calculating" how bad the damage is to the canisters, the NRC should require Edison replace this system before these canisters have major radioactive leaks or hydrogen gas explosions. Edison admits each canister contains as much radioactive material as released from the 1986 Chernobyl nuclear disaster. The system is a lemon and must be recalled.

More outlandish is Edison plans to destroy the spent fuel pools – the only NRC approved on-site method to replace defective canisters. The State Lands Commission is ignoring this issue and approved the San Onofre EIR last week. Who's protecting California? Are we going to wait until Southern California has to evacuate millions of people?

The NRC format of this webinar allowed us to ask questions, but we did not receive answers to most of our questions. This NRC webinar format does not allow adequate communication with the public. In most NRC public meetings, we are able to communicate via phone or in person with the NRC staff. The NRC needs to have their own public meeting in San Diego county -- not just be a participant in Edison's Community Engagement Panel meeting. Those meeting are Edison propaganda meetings controlled by Edison CEP appointed Chairman David Victor, who stifles public participation. The local community refers to those meetings as Community "Enragement" Panel meetings.

San Onofre Special Inspection NRC website

<https://www.nrc.gov/reactors/operating/ops-experience/songs-spec-insp-activities-cask-loading-misalignment.html>

The Holtec system must be recalled and replaced with proven thick-wall cask technology that has existed for decades. Only dry storage systems that can already be inspected (inside and out), repaired, maintained and monitored in a manner to PREVENT radiological releases and hydrogen gas explosions should be approved by the NRC. The Nuclear Waste Technical Review Board December 2017 report recommendations on storage and transport support this recommendation.

The Nuclear Waste Technical Review Board December 2017 report to Congress states spent nuclear fuel waste must be monitored and maintained in dry storage in a manner to prevent hydrogen gas explosions for both short-term and long-term storage. This is not currently being done and cannot be done with the thin-wall welded canisters. It can only be done with thick-wall bolted lid casks, like those used in most of the world and at some US facilities.

Nuclear Waste Technical Review Board report to the United States Congress and the Secretary of Energy, Management And Disposal Of US Department Of Energy Spent Nuclear Fuel, NWTRB, December 2017.  
<http://www.nwtrb.gov/docs/default-source/reports/nwtrb-mngmntanddisposal-dec2017-508a.pdf?sfvrsn=12>

The best available current technology solution is to store spent nuclear fuel waste above ground in hardened buildings for additional environmental and security protection. The best available technology that can meet NWTRB requirements are thick-wall bolted lid casks, currently the standard in most of the world (except the U.S.). Most U.S. nuclear waste generators chose thin-wall canister systems because of lower initial cost. However, they are actually more expensive due to their shorter lifespan.

Also, the Nuclear Waste Policy Act of 1982 (NWPAA), requires monitored retrievable spent nuclear fuel storage. The NRC has chosen to ignore these NWPAA requirements.

H.R. 3053, The Nuclear Waste Policy Amendment Act of 2018, (passed by the House in 2018, but not in the Senate) proposes to eliminate NWPAA essential storage and transport safety requirements and site environmental reviews. It also proposes to remove federal, state, local and public rights for oversight, input and transparency. It also changed funding from mandatory to discretionary with Congress.

#### **Recommendations**

**Step One:** stop loading and damaging canisters.

**Step Two:** replace all thin-wall welded canisters with thick-wall bolted lid casks that can be maintained and monitored to PREVENT radiological releases and hydrogen gas explosions.

**Step Three:** Store away from coastal and flood risks while minimizing transport distances and risks. Store in reinforced buildings for additional environmental and security protection.

Current focus on transporting these uninspectable cracking canisters to consolidated interim storage sites or Yucca Mountain will no more solve our urgent nuclear waste storage problems than rearranging the deck chairs on the Titanic would have stopped it from sinking.

Donna Gilmore  
SanOnofreSafety.org  
949-204-7794



---

**From:** (b)(6)  
**Sent:** Sunday, September 02, 2018 8:56 AM  
**Subject:** [External\_Sender] More Scandals Rock Southern California Nuke Plant San Onofre : Indybay

<https://www.indybay.org/newsitems/2018/08/30/18817217.php>

## More Scandals Rock Southern California Nuke Plant San Onofre

During August more scandals rocked Southern California's San Onofre nuclear power plant, resulting in an upcoming special federal investigation.

Nuclear Shutdown News chronicles the decline and fall of the nuclear power industry in the US and abroad, and highlights the efforts of those working to create a nuclear free world. Here is our August 2018 report.

### More Scandals Rock San Onofre

The eighth month of the year saw additional scandals erupt at Southern California's San Onofre nuclear plant, which has been shut down since 2013.

Another potentially catastrophic accident occurred, a previously unknown whistleblower spoke out, and the federal Nuclear Regulatory Commission (NRC) is sending a special inspection team to try to sort out this whole mess.

San Onofre's majority owner Southern California Edison shut the plant down prematurely after a scandal involving corporate mismanagement that caused a radioactive leak, and environmentalists exposed the utility's rush to restart the plant at the expense of the public's health and safety.

Since the permanent shutdown Edison has begun what's called decommissioning, meaning dismantlement and decontamination of the nuclear plant .A key task in this process is dealing with the nuclear waste left over . This is called spent nuclear fuel, stored in San Onofre's nuclear reactors as well as in pools where it must be constantly cooled or else there could be a serious accident, in the worst case leading to a meltdown.

This highly radioactive waste remains lethal to all life for a very long time. The federal



government was supposed to take responsibility for the megatons of spent nuclear fuel (3.55 million tons in San Onofre's case) for the whole nation by 1980, but still hasn't .

Edison chose to do the job by having the spent fuel removed from the plant and transferred to what is called dry storage, in canisters that are then buried on site for who knows how long. To carry out this task Edison hired Holtec International of Camden, New Jersey. Work began this past February, then stopped--but for only 10 days--after a cask lost a part while being lowered into the burial site in March.

The burial site is only 100 feet from the Pacific Ocean, protected by just a 28 foot seawall.

### August Is the Crueliest Month--So Far

On August 10th the San Diego Union Tribune reported on "an incident" during which another spent fuel cask had become stuck on August 4th while being maneuvered down to the bottom of the nuke dump. Specifically, the cask was wedged 18 feet above the bottom, and remained there for "45 minutes to an hour" according to the NRC.

The next day, August 4th, a whistleblower revealed himself at a public meeting about San Onofre's decommissioning, the same U-T article reported. He identified himself as David Fritch, and said he was employed with the federal Occupational and Safety Administration (OSHA) and had been working at San Onofre for three months.

Fritch said he attended the meeting "to see if any of Edison's reps would discuss the 8-3 incident," but when none did he decided to report that the canister in question "could have fallen 18 feet."

In a followup Union Tribune report on August 24th Fritch alleged that only "about a quarter inch" wedge prevented the canister from falling before it was finally repositioned and safely lowered.

In the earlier U-T report Fritch also said some workers with Holtec "are undertrained" and many experienced supervisors are often sent away and replaced by new supervisors "who don't understand it as well."

The 8-24 Union Tribune report said an NRC inspection team "will send a team to evaluate the incident, will come on September 10 and spend a week."

The incident "confirms every fear we've had about what's going on at San Onofre and what measures they're taking to ensure the public's safety," Charles Langley of the San Diego Public

Watchdogs told the the Union Tribune on August 10. He also expressed concerns that the spent fuel casks are not thick enough and could crack.

In light of all the above, Edison put the cask transfer operations "on pause."

Source: San Diego Union Tribune, [uniontribune.com](http://uniontribune.com)

## Holtec's Master Plan

Given Holtec's troublesome performance at San Onofre, you might think the company would be curtailing its activities in other places.

Unfortunately this is not the case. Earlier this year Nuclear Shutdown News detailed its plan to build a nuke dump in Arizona for the nation's spent fuel still sitting around the increasing number of shutting down and already closed nuclear plants. An application to do so has been filed with the NRC. The most likely means of transporting the high level radioactive waste would likely be by rail.

But Holtec has also been removing spent fuel from shutdown nukes and storing it on site, most recently at Vermont Yankee, which closed in 2014.

Holtec appears to be privatizing the job of dealing with the nuke industry's high level radioactive waste and turning it into its own growth industry , after the job was abdicated by the federal government since 1980, as noted above.

On August 1 Utility Drive reported a new Holtec scheme to turn a profit this way in its article "Holtec to buy three nuclear plants, greatly accelerate decommissioning."

The three nuclear plants, all shutting down in the near future, are Oyster Creek in New Jersey, Pilgrim in Massachusetts, and Palisades in Michigan.

Holtec and its partner Comprehensive Decommissioning International, said they would dismantle and decontaminate the three nuke plants in eight years, though they have up to 60 years to do so. The same plan applies to Vermont Yankee.

In that state the Conservation Law Foundation warned, "In the rush to secure a possible--and by no means certain--quick cleanup of the site, the settlement excludes reasonable protection for

Vermont communities.

The Utility Drive report did not explain why Holtec is buying the three nukes, or for how much.

But a report by WBUR radio in Boston on August 2 said that in the Pilgrim deal "Holtec will get \$1 billion paid by Massachusetts ratepayers into a decommissioning trust fund."

Sources: Utility Drive, utility [drive.com](http://drive.com); WBUR, [wbur.org](http://wbur.org).

Always do right---you will amaze some and mystify most !

**From:** [Frazier, Alan](#)  
**To:** [Svinicki, Kristine](#)  
**Cc:** [Smith, Maxwell](#); [Bowman, Eric](#); [Brown, David](#)  
**Subject:** FW: RE: NRC Staff answers to follow up questions on SONGS  
**Date:** Friday, April 24, 2020 10:51:59 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)

---

FYI -

**From:** Decker, David <[David.Decker@nrc.gov](mailto:David.Decker@nrc.gov)>  
**Sent:** Friday, April 24, 2020 10:37 AM  
**To:** Frazier, Alan <[Alan.Frazier@nrc.gov](mailto:Alan.Frazier@nrc.gov)>; Powell, Amy <[Amy.Powell@nrc.gov](mailto:Amy.Powell@nrc.gov)>; Cade, Steven <[Steven.Cade@nrc.gov](mailto:Steven.Cade@nrc.gov)>; Kanatas, Catherine <[Catherine.Kanatas@nrc.gov](mailto:Catherine.Kanatas@nrc.gov)>  
**Cc:** Vietti-Cook, Annette <[Annette.Vietti-Cook@nrc.gov](mailto:Annette.Vietti-Cook@nrc.gov)>; Haney, Catherine <[Catherine.Haney@nrc.gov](mailto:Catherine.Haney@nrc.gov)>; Ammon, Bernice <[Bernice.Ammon@nrc.gov](mailto:Bernice.Ammon@nrc.gov)>  
**Subject:** FW: RE: NRC Staff answers to follow up questions on SONGS

Sorry not to have passed this along earlier, but here is the message we got back from Congressman Levin's office about inspections.

David

**From:** Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>  
**Sent:** Thursday, April 23, 2020 10:48 AM  
**To:** Dacus, Eugene <[Eugene.Dacus@nrc.gov](mailto:Eugene.Dacus@nrc.gov)>; Decker, David <[David.Decker@nrc.gov](mailto:David.Decker@nrc.gov)>  
**Subject:** FW: RE: NRC Staff answers to follow up questions on SONGS

FYI

**From:** Gilbert, Jonathan <[Jonathan.Gilbert@mail.house.gov](mailto:Jonathan.Gilbert@mail.house.gov)>  
**Sent:** Thursday, April 23, 2020 10:31 AM  
**To:** Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>; Krahel, Kyle <[Kyle.Krahel@mail.house.gov](mailto:Kyle.Krahel@mail.house.gov)>  
**Subject:** [External\_Sender] RE: NRC Staff answers to follow up questions on SONGS

Thanks Angel, we appreciate this. And we appreciate you and the rest of the staff answering our questions and helping us understand the decision NRC has made and why.

We understand that NRC was in a new and extraordinary circumstance in April and made decisions based on it. However, after talking to Rep. Levin, I wanted to pass on that he will find it unacceptable if fuel loading continues and there is not an onsite inspection in May. If it is safe for workers to be onsite conducting fuel loading, it is safe for NRC inspectors to be onsite. If NRC staff feels that it is not safe for NRC inspectors to be onsite, then it is not safe for workers to conduct fuel loading. It's simply one or the other.



Thank you.

Jonathan

Jonathan Gilbert | Legislative Director  
202-407-0210 | 1626 Longworth HOB

**U.S. REPRESENTATIVE**  
**MIKE LEVIN**  
*Proudly Serving California's 49th District*



Sign up for updates [HERE](#).

**From:** Moreno, Angel <[Angel.Moreno@nrc.gov](mailto:Angel.Moreno@nrc.gov)>

**Sent:** Wednesday, April 22, 2020 2:08 PM

**To:** Krahel, Kyle <[Kyle.Krahel@mail.house.gov](mailto:Kyle.Krahel@mail.house.gov)>; Gilbert, Jonathan <[Jonathan.Gilbert@mail.house.gov](mailto:Jonathan.Gilbert@mail.house.gov)>

**Subject:** NRC Staff answers to follow up questions on SONGS

Hello Kyle and Jonathan,

Below please find NRC staff's responses to your briefing follow-up questions:

- **Q: How does oversight of worker behavior and training normally occur during on-site inspections?**

A: Worker behavior and training can be monitored in several ways. When NRC inspectors are physically present, they observe how workers adhere to and execute procedure steps. In addition to direct observation, we also inspect licensee documentation related to procedural adherence. Our review of employee training consists of reviewing training plans and completion records. We normally inquire about any new employees which may need to complete licensee training specific to their job assignments and review records associated with their completion of applicable training. When San Onofre revised and enhanced its training program following the August 3, 2018 incident, our inspectors were able to observe numerous training sessions while on-site.

- **Q: How is that oversight being achieved during remote inspections?**

A: During the periods when we are not physically present, we can review condition reports (which are associated with the corrective action program) and other licensee documentation concerning resolution of issues processed through the corrective action program. These would include licensee documentation of procedural adherence. Inspectors can also review training records. We can also conduct interviews of personnel and supervisors to gain additional insights and information.



The inspection frequency for San Onofre is more frequent than our normal inspection frequency, so our ability to review and follow-up on performance-related information is enhanced. In addition, we continue to hold weekly, or more frequent, communication with site personnel and managers to discuss site activities, performance trends and any issues that the licensee brings to our attention.

If you have any additional questions, please feel free to let me know.

Thanks.

**Angel D. Moreno**

Congressional Affairs Officer

Office of Congressional Affairs

U.S. Nuclear Regulatory Commission

301.415.1697 (w)

(b)(6) (c)

[angel.moreno@nrc.gov](mailto:angel.moreno@nrc.gov)

**From:** [ALBERT BATES](#)  
**To:** [Muessle, Mary](#); [Howell, Linda](#); [Warnick, Greg](#)  
**Cc:** [ALBERT BATES](#); [Smith, Chris](#); [Mark Morgan](#); [Doug Bauder](#); [Vincent J Bilovsky](#)  
**Subject:** [External\_Sender] SONGS response to CA governor's order to shelter in place  
**Date:** Friday, March 20, 2020 11:21:15 AM

---

Good morning –

We have made the determination that SONGS work (FTO, D&D, other work) will continue, because Decommissioning Power reactors are connected as part of the Critical Infrastructure under CISA, which is linked to the Governor's Order (see excerpt below).

So at least for now, work will continue.

Our pandemic response protocol will protect our critical staff sub-group that perform regulatory functions such as Security, Ops, RP, EP. There are triggers that can be pulled to discontinue FTO and D&D activities to protect the aforementioned critical sub-group. We are continuously re-evaluation the decision to continue work as the situation changes. And, we are evaluating each step of the week-long FTO process to ensure we can complete activities and ensure a safe condition should we need to stop work.

Please let me know if you have any questions.

Al

The Nuclear Reactors, Materials, and Waste Sector includes:

[99 Active and 18 Decommissioning Power Reactors](#) in 30 states that generate nearly 20 percent of the nation's electricity. In the United States, there have been no civilian deaths associated with the operation of a nuclear power plant since the technology's introduction over 60 years ago, making nuclear power one of the safest forms of energy in the country.

Get [Outlook for iOS](#)

---

**From:** Smith, Chris <Chris.Smith@nrc.gov>  
**Sent:** Friday, March 20, 2020 7:15 AM  
**To:** ALBERT BATES; Mark E Morgan  
**Subject:** (External):RE: Re: (External):NRC request re: CA shelter in place order

**CAUTION EXTERNAL EMAIL**

Thanks Al,

No rush!

Cheers,  
Chris

---

**From:** ALBERT BATES <AL.BATES@sce.com>  
**Sent:** Friday, March 20, 2020 7:11 AM  
**To:** Smith, Chris <Chris.Smith@nrc.gov>; Mark E Morgan <Mark.Morgan@sce.com>  
**Subject:** [External\_Sender] Re: (External):NRC request re: CA shelter in place order

Will do Chris- we are figuring it out.  
Al

Get [Outlook for iOS](#)

---

**From:** Smith, Chris <Chris.Smith@nrc.gov>  
**Sent:** Thursday, March 19, 2020 7:11:15 PM  
**To:** ALBERT BATES <AL.BATES@sce.com>; Mark E Morgan <Mark.Morgan@sce.com>  
**Subject:** (External):NRC request re: CA shelter in place order

**CAUTION EXTERNAL EMAIL**

Gentlemen,

Would you please keep me or Linda informed of the SCE activities in light of the governor's shelter in place order?

<https://covid19.ca.gov/stay-home-except-for-essential-needs/>

It's late but the news just popped up on my phone.

I'm not sure where FTO and DND activities fit into your pandemic plan, so if you could provide SONGS' current status by normal business hours tomorrow it would be much appreciated!

Stay safe - and thanks in advance,  
Chris

**From:** [ALBERT BATES](#)  
**To:** [Warnick, Greg](#)  
**Cc:** [ALBERT BATES](#); [Mark E Morgan](#)  
**Subject:** [External\_Sender] RE: (External):RE: RE: (External):RE: RE: (External):Reactor De-Segmentation Training  
**Date:** Friday, March 27, 2020 2:43:43 PM

---

Greg,

The schedule shows mid-July and is described as training and demo. That schedule has not been updated for 2 weeks, so impacts from the COVID-19 have not been factored in, if there are impacts. I imagine in around a month we will know a little better and hopefully have some sort of scope / daily schedule.

Al

---

**From:** ALBERT BATES <[AL.BATES@sce.com](mailto:AL.BATES@sce.com)>  
**Sent:** Friday, March 27, 2020 12:08 PM  
**To:** Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>  
**Cc:** ALBERT BATES <[AL.BATES@sce.com](mailto:AL.BATES@sce.com)>  
**Subject:** RE: (External):RE: RE: (External):RE: RE: (External):Reactor De-Segmentation Training

Greg –

Checking. I'll let you know what type of delay will occur.

Al

---

**From:** Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>  
**Sent:** Friday, March 27, 2020 12:00 PM  
**To:** ALBERT BATES <[AL.BATES@sce.com](mailto:AL.BATES@sce.com)>  
**Subject:** (External):RE: RE: (External):RE: RE: (External):Reactor De-Segmentation Training

**CAUTION EXTERNAL EMAIL**

Hi Al,

I hope all is well. Do you have any information to share yet? I recognize that plans likely have shifted due to the global pandemic, but just thought I'd check in.

Thanks,

Greg

---

**From:** ALBERT BATES <[AL.BATES@sce.com](mailto:AL.BATES@sce.com)>  
**Sent:** Thursday, February 20, 2020 3:01 PM  
**To:** Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>  
**Cc:** ALBERT BATES <[AL.BATES@sce.com](mailto:AL.BATES@sce.com)>  
**Subject:** [External\_Sender] RE: (External):RE: RE: (External):Reactor De-Segmentation Training

Hello Greg,

We have been promised that SDS will have a Germany internals segmentation demo and training



schedule in about two weeks.

I have added a calendar tickler for me to get back to you at that time.

Al

---

**From:** Warnick, Greg [<mailto:Greg.Warnick@nrc.gov>]

**Sent:** Thursday, February 20, 2020 9:41 AM

**To:** ALBERT BATES <[AL.BATES@sce.com](mailto:AL.BATES@sce.com)>

**Subject:** (External):RE: RE: (External):Reactor De-Segmentation Training

**CAUTION EXTERNAL EMAIL**

Al,

Were you able to obtain additional details regarding my request below?

Thanks,

Greg

---

**From:** ALBERT BATES <[AL.BATES@sce.com](mailto:AL.BATES@sce.com)>

**Sent:** Wednesday, February 12, 2020 6:34 PM

**To:** Warnick, Greg <[Greg.Warnick@nrc.gov](mailto:Greg.Warnick@nrc.gov)>

**Cc:** ALBERT BATES <[AL.BATES@sce.com](mailto:AL.BATES@sce.com)>

**Subject:** [External\_Sender] RE: (External):Reactor De-Segmentation Training

Greg –

Will do. Vince is off site until Monday, but I will confer with him and provide an answer early next week.

Al

---

**From:** Warnick, Greg [<mailto:Greg.Warnick@nrc.gov>]

**Sent:** Wednesday, February 12, 2020 2:17 PM

**To:** ALBERT BATES <[AL.BATES@sce.com](mailto:AL.BATES@sce.com)>

**Subject:** (External):Reactor De-Segmentation Training

**CAUTION EXTERNAL EMAIL**

Hi Al,

Mary mentioned that the training in Germany was brought up during her conversations with you and Doug while on-site last week.

Can you provide me with more details (i.e. schedule, cost, location, etc)? We want to explore whether there could be any benefit for our inspectors (Regional and HQ) to be involved in some portion (or all) of the training. Three weeks may be too much, so, could there be a shorter period (e.g. 1 week) during the overall training where we, as the regulator, might gain insights to inform our oversight activities?



Thanks in advance,

Greg

**Greg Warnick**

Chief, Reactor Inspection Branch

NRC Region IV

Ofc 817 200-1249

**From:** [Mark E Morgan](#)  
**To:** [Howell, Linda](#); [Warnick, Greg](#); [Snyder, Amy](#)  
**Cc:** [Mark E Morgan](#); [ALBERT BATES](#)  
**Subject:** [External\_Sender] SONGS NOV IO and IMP Notifications  
**Date:** Tuesday, June 16, 2020 10:03:59 AM

---

Linda, Greg, Amy,

I write to make you aware of two matters regarding the San Onofre Nuclear Generating Station (SONGS): (1) SCE's response to the San Diego Regional Water Quality Control Board's investigative order in connection with an inadvertent wastewater release from SONGS in March and (2) an Inspection and Monitoring Program for the Holtec spent fuel storage system at SONGS that will be considered for approval at the California Coastal Commission's July virtual meeting.

### **Response to Water Board**

SCE's response answers questions from the Water Board and provides supporting environmental data. After the inadvertent release, we promptly launched an evaluation using internal resources and third party experts and implemented steps to prevent reoccurrence before re-starting the plant. The non-radiological release, while only partially treated, was diluted to more than 20 times the regulatory requirement prior to discharge to the ocean at a point more than a mile offshore. At the time of the release, the San Diego Department of Environmental Health determined the release was of low impact and did not require beach closures. We have confirmed that ecological impacts from the release are low, there is no evidence of human health impacts, and no evidence of physical impacts from this release.

More information including the full response to the Water Board has been posted to the SONGS website and is available [here](#).

We look forward to continuing to work with the Water Board to satisfactorily resolve this matter, as well as ensure the safe operation of the SONGS sewage treatment plant.

### **Inspection and Maintenance Program**

SCE's Inspection and Maintenance Program (IMP) for the Holtec multi-purpose canisters (MPCs) at SONGS will be considered for approval by the CCC during part of its July virtual meeting. SCE developed the IMP in response to a special condition in the 2015 ISFSI Coastal Development Permit issued by the California Coastal Commission (CCC). The SONGS IMP is one the industry's most advanced and comprehensive fuel management programs because it includes robotic inspections, a test canister program, a demonstrated canister repair method, and more.

The CCC staff retained a specialty consultant, Lucius Pitkin Inc. (LPI), to review the IMP and LPI produced a report. The CCC staff report, the IMP, and the LPI report all are available on the CCC's home page, which is available [here](#). The Commission staff report includes a

recommendation that the Commissioners approve the IMP. More information on the IMP has been posted to the SONGS website and that information is available [here](#).

Please let me know if you have questions.

Mark Morgan

SONGS Regulatory Affairs

(b)(6) (c)



# Decommissioning San Onofre

## Nuclear Generating Station

# Decommissioning Update

Tom Palmisano  
January 30, 2018

Decommissioning San Onofre Nuclear Generating Station | Safety | Stewardship | Engagement







# Decommissioning Principles

**Southern California Edison and co-participants committed to:**

## **Safety**

- Safely decommissioning San Onofre
- Safely moving the power plant's used fuel into dry cask storage, until government approved long-term storage options are available

## **Stewardship**

- Spending Nuclear Trust Funds wisely
- Returning any unused money to customers

## **Engagement**

- Decommissioning process is inclusive, forward-thinking, involving diverse stakeholders





*NEW SYNCHRONOUS CONDENSER FOR OLD REACTOR*

Decommissioning San Onofre Nuclear Generating Station Safety | Stewardship | Engagement

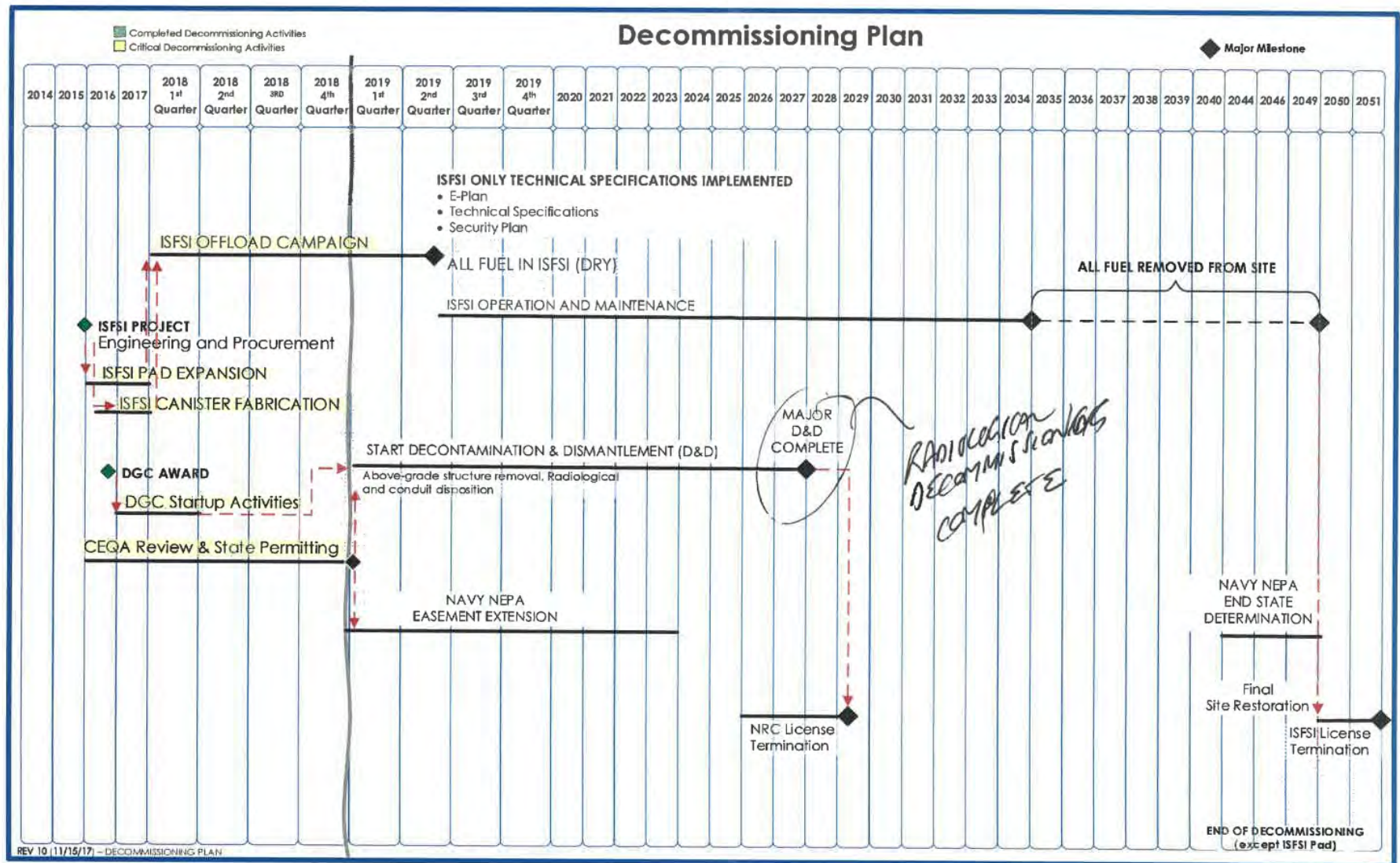
3



# Decommissioning Milestones

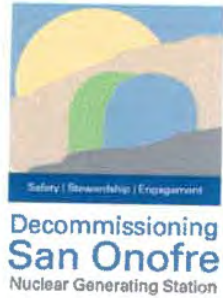
- Met all NRC requirements in 3Q 2015
- Future Activities and Schedule:
  - California Environmental Quality Act (CEQA) requirements 4Q 2018
  - Decontamination & Dismantlement (D&D) 2019 - 2027
  - Transfer used fuel to Independent Spent Fuel Storage Installation (ISFSI) 1Q 2018 – 2Q 2019
  - NRC Partial License Termination: Forecast 2027
  - All fuel offsite and all structures removed: Forecast 2051





# NRC Submittal Status

| Submittal                                                                      | Status    | RAI Status | Forecast Approval |
|--------------------------------------------------------------------------------|-----------|------------|-------------------|
| Insurance Exemption (Offsite)                                                  | Submitted | NRC review | Approved          |
| Insurance Exemption (Onsite)                                                   | Submitted | NRC review | Approved          |
| ISFSI-Only LAR (Tech Specs)                                                    | Submitted | NRC review | Approved          |
| ISFSI-Only LAR (Emergency Plan)                                                | Submitted | NRC review | Approved          |
| ISFSI-Only LAR (Security Plan) – provide blast calculation & compliance matrix | Submitted | NRC review | 1Q2018            |
| LAR to Remove Cyber Condition from License                                     | Submitted | N/A        | Approved          |
| Annual Radiological Effluent Release Report                                    | Submitted | N/A        | N/A               |
| Annual Radiological Environmental Operating Report                             | Submitted | N/A        | N/A               |
| PSDAR, IFMP Update (depends on DCE update)                                     | 1Q 2018   | N/A        | N/A               |
| Revised Quality Assurance Plan                                                 | 1Q2018    | N/A        | N/A               |



# California Environmental Quality Act Update





# Key Milestones

- Draft Environmental Impact Report (EIR) issuance: 5/15/18
- 60-day public review
- California State Lands Commission (CSLC) meeting to certify Final EIR: 10/18/18 (San Diego)
- California Coastal Commission (CCC) hearing to approve Coastal Development Permit: 12/12/18 (LA/Orange County)
- SDS Notice to Proceed: ~ January 2019



# Used Fuel Management Status

# Onsite Used Fuel Storage

## CURRENT STATE

Spent Fuel  
Pools

2668 fuel  
assemblies

Existing ISFSI  
50 canisters (1187  
fuel assemblies)

## EXPANDED ISFSI

73 canisters  
(2668 fuel  
assemblies)

+

existing 50  
canisters  
(1187 fuel  
assemblies)

## FUTURE STATE

3855 fuel  
assemblies in  
123 canisters



# Fuel Offload Schedule

| Action                                | Timing        |
|---------------------------------------|---------------|
| ISFSI pad construction complete       | August 2017   |
| Security building complete            | December 2017 |
| Final SCE reviews and NRC inspections | January 2018  |
| Start offload from wet to dry storage | January 2018  |
| All fuel in passive dry storage       | Mid-2019      |



Safety | Stewardship | Engagement

Decommissioning  
**San Onofre**  
Nuclear Generating Station

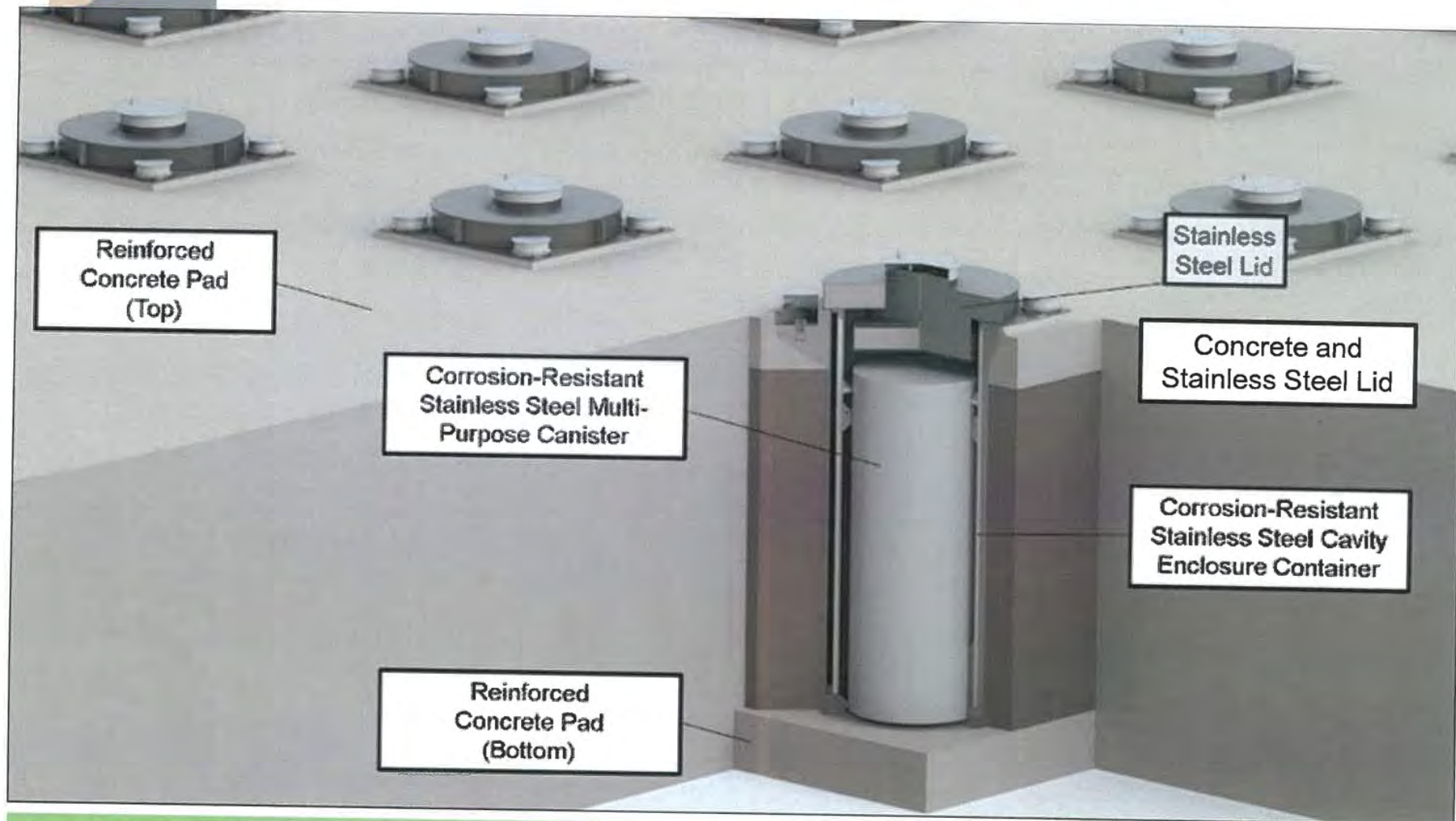
# Construction Complete







# HOLTEC UMAX System



# Used Fuel Readiness for Transportation

- Some fuel qualified for transport now
- Remaining fuel qualifies over time

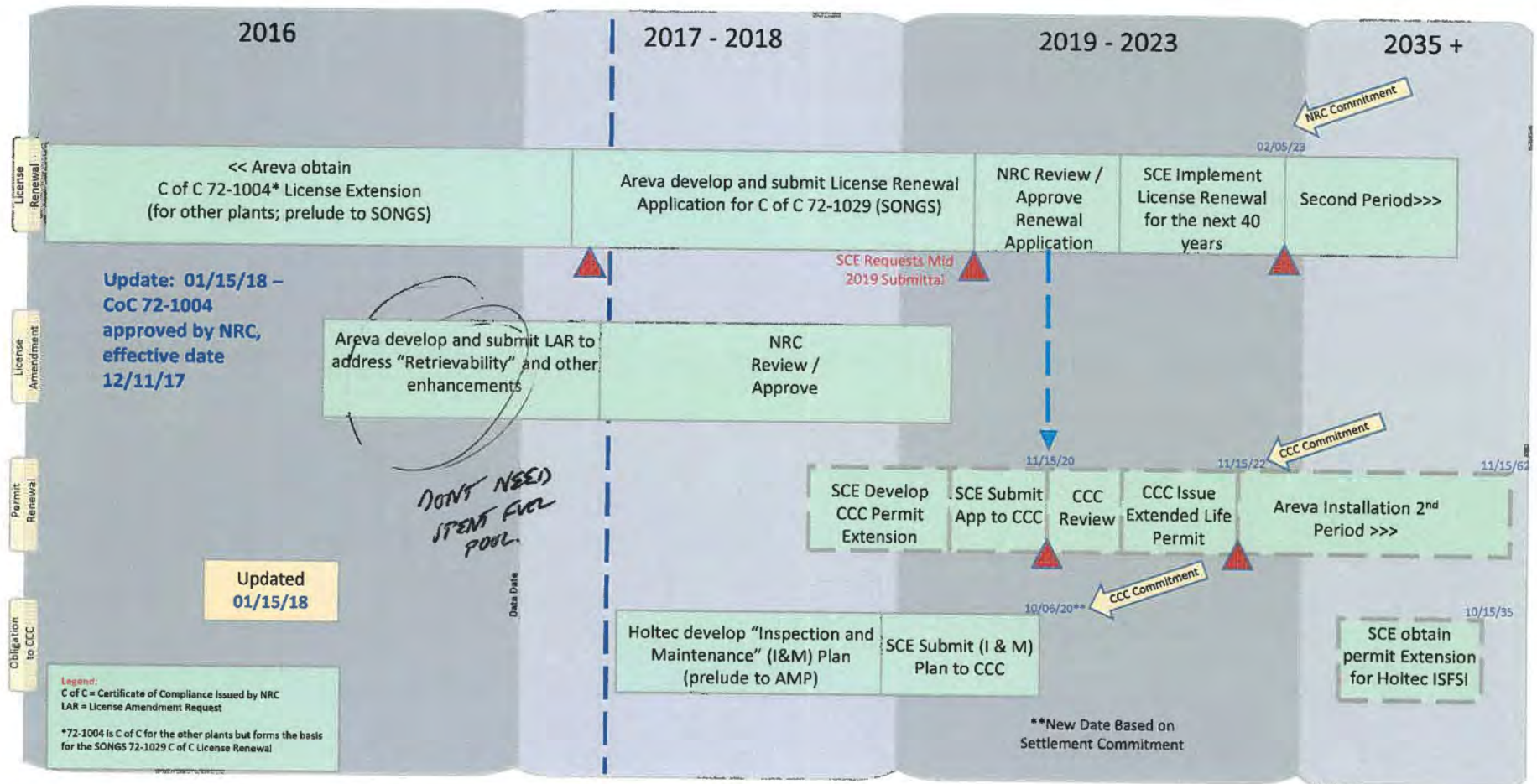
*SPANNED  
STEEL CLAD  
Co-60  
DRY  
NEEDS*

|                                           | NOW | '18 | '19 | '20 | '21 | '22 | '23 | '24 | '25 | '26 | '27 | '28 | '29 | '30 | TOTAL |
|-------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| <b>Units 2/3</b><br>AREVA<br>NUHOMS 24PT4 | 21  | 6   | 6   |     |     |     |     |     |     |     |     |     |     |     | 33    |
| <b>Unit 1</b><br>AREVA<br>NUHOMS 24PT1    |     | 2   |     |     |     |     | 1   |     |     |     |     | 5   |     | 9   | 17    |
| <b>Units 2/3</b><br>HOLTEC<br>MPC-37      |     |     |     | 67  |     | 2   | 2   |     | 1   |     |     | 1   |     |     | 73    |



# ISFSI License Renewal

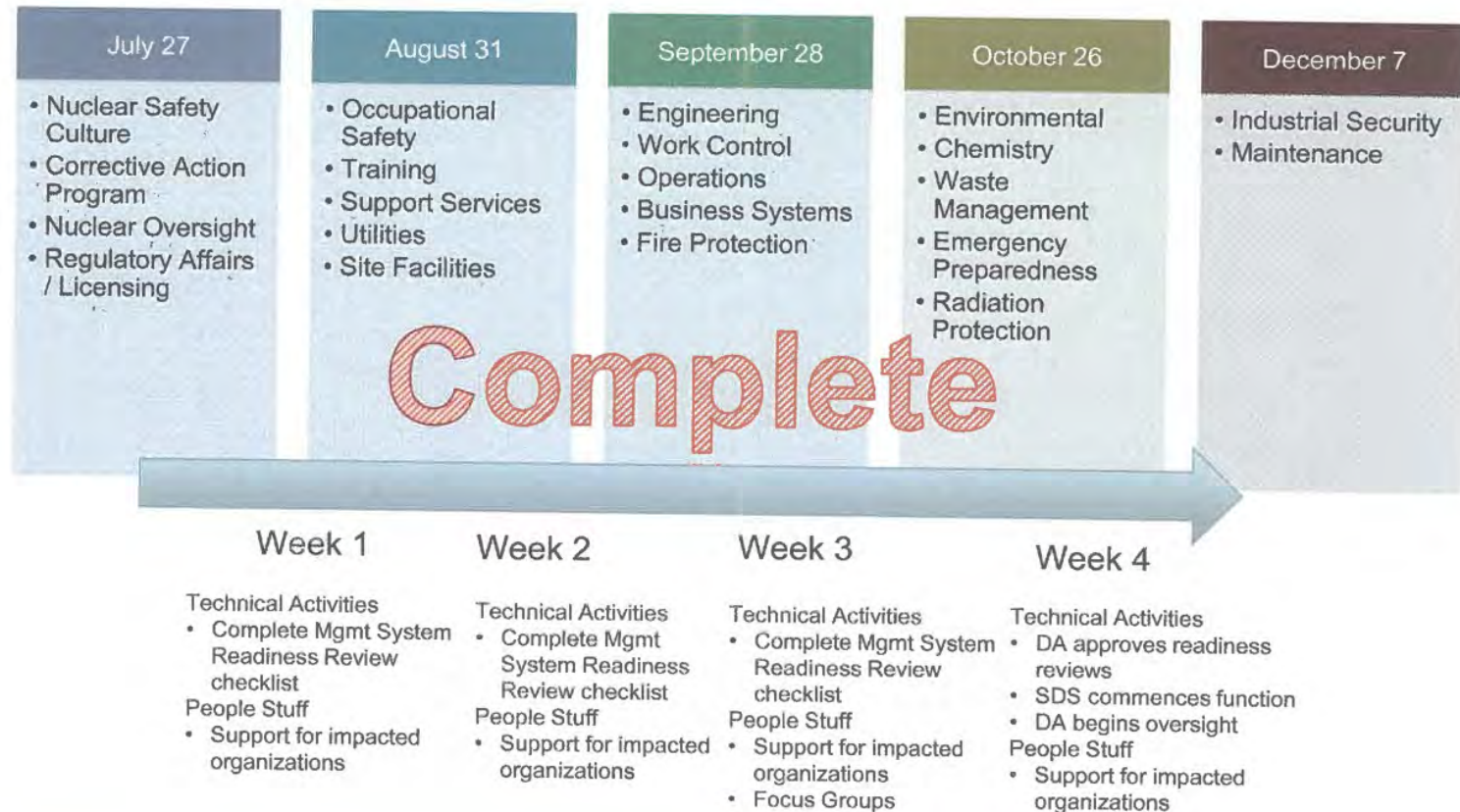
## ISFSI-2 LEVEL 1 CONCEPTUAL SCHEDULE FOR LICENSE RENEWAL, AMP, & DEFENSE IN DEPTH





## SDS Status

# Management System Transition Review Cycle







# 2018 SDS Work

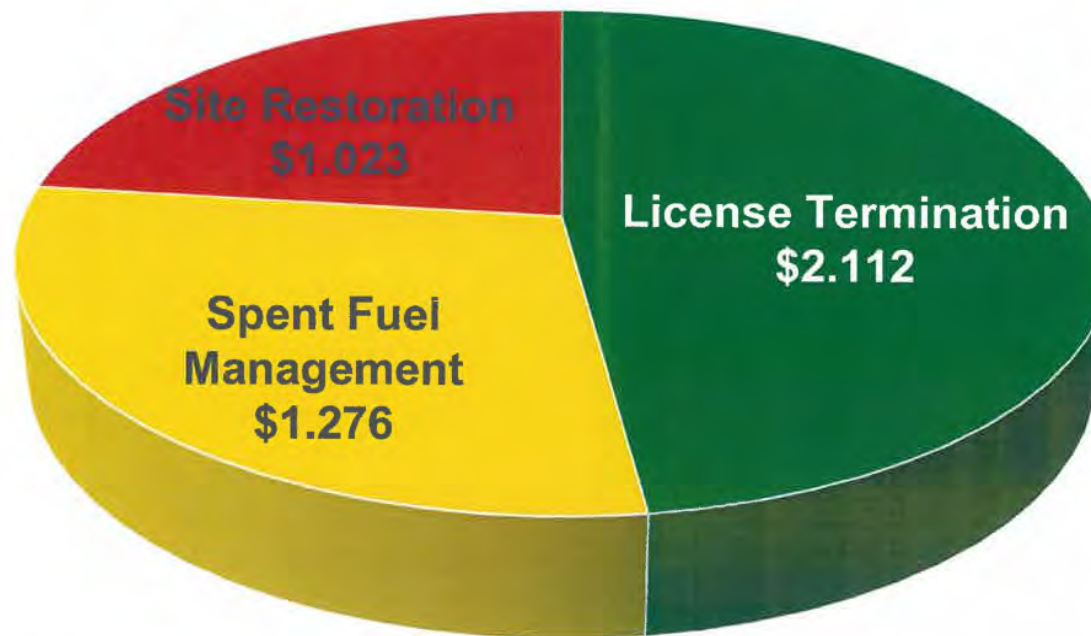
- Containment Habitability (Approved)
- RV/RVI Characterization (Under review)
- Site Characterization



Decommissioning  
**San Onofre**  
Nuclear Generating Station

# Decommissioning Cost Estimate Update

# 2014 Decommissioning Cost Estimate



- Total estimate = \$4.411 Billion (100% share, 2014\$)
- Current trust fund balances expected to fully fund decommissioning



# Community Engagement



# San Onofre Community Engagement Panel



- Created in 2014 to serve as an open conduit between the public and the utility
- Eighteen representatives from surrounding cities and counties, including:
  - Elected officials and agency representatives
  - Local law enforcement
  - Representatives of the U.S. military
  - Business and labor communities
  - Local environmental organizations
  - Local schools and academic institutions

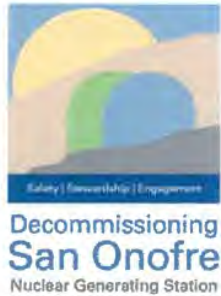




# 2018

## CEP Preliminary Focus Topics

- 1Q - Environmental Permitting: CEQA Process and Public Engagement
- 2Q - Spent Fuel Management: Defense-in-Depth
- 3Q - Spent Fuel Management: Transportation - Current Practices and Planning
- 4Q - Spent Fuel Management: Consolidated Interim Storage & Legislation



# Visitors

Since 2014, 2000+ visitors including:

- The Public - walking tours twice monthly
- High school students, teachers and parents
- California Energy Commission
- Members of Congress: Darrell Issa (R-49), Scott Peters (D-52), Mimi Walters (R-45); John Shimkus (R-IL)
- Native American Tribal Nations
- City of San Diego Fire Department
- Orange County Coastkeepers
- Ocean Institute
- San Diego Union Tribune
- Sierra Club, Los Angeles and San Diego Chapters
- Surfrider Foundation



# Decommissioning Principles

**Southern California Edison and co-owners committed to:**

***Safety***

***Stewardship***

***Engagement***

***More information on  
[www.SONGScommunity.com](http://www.SONGScommunity.com)***



# Decommissioning San Onofre

Nuclear Generating Station

## NRC Drop-In

December 17, 2018



Decommissioning  
**San Onofre**  
Nuclear Generating Station

# Agenda

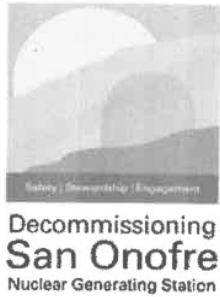
| Time        | Topic                          | Presenter              |
|-------------|--------------------------------|------------------------|
| 3:30 – 3:35 | Introductions                  | Everyone               |
| 3:35 – 3:45 | General Decommissioning Update | Doug Bauder / Al Bates |
| 3:45 – 3:55 | Contractor Oversight           | Al Bates               |
| 3:55 – 4:05 | Community Outreach             | Doug Bauder            |
| 4:05 – 4:30 | General Discussion             | Everyone               |





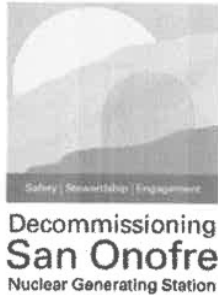
Decommissioning  
**San Onofre**  
Nuclear Generating Station

# GENERAL DECOMMISSIONING UPDATE



# General Decommissioning Update

- CEQA / EIR and Coastal Development Permit
- Site Work – ALSHMA
  - Authorized Limited Safe-Store Hazard Mitigation Actions
- Asbestos
- DCE



# Decommissioning Update

## CEQA / EIR and Coastal Development Permit

- **California State Lands Commission (CSLC)**
  - Final Environmental Impact Report (EIR) is undergoing preparation by CSLC staff and SCE anticipates the EIR will be issued in February 2019
  - SCE presently anticipates that CSLC will hold a meeting to certify the EIR in March or April 2019
- **California Coastal Commission (CCC)**
  - SCE will submit a Coastal Development Permit (CDP) application to CCC after the final EIR is issued
  - SCE presently anticipates that CCC will hold a meeting to consider the CDP in June 2019



Decommissioning  
San Onofre  
Nuclear Generating Station

# Decommissioning Update

## Site Work – ALSHMA

### Authorized Limited Safe-Store Hazard Mitigation Actions

| ALSHMA #  | Brief Description               | Status                                                                                                        | Detailed Description                                                                                                                                             |
|-----------|---------------------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALSHMA #1 | Containment Habitability        | 80% Complete, FC April 2019<br>On-hold pending disposition of asbestos                                        | Restore features that were mothballed during the cold and dark project which will be required for decommissioning activities in containment and other locations. |
| ALSHMA #2 | RV/RVI Characterization         | 0% Complete, Successor to ALSHMA #1<br>On-hold pending disposition of asbestos                                | Perform initial work for Reactor Vessel/Reactor Vessel Internal characterization in support of segmentation of reactor internal components for packaging.        |
| ALSHMA #3 | Building & SSC Characterization | 15% Complete, FC End of 2019<br>In progress                                                                   | Ongoing site characterization work in support of permitting requirements and decommissioning planning.                                                           |
| ALSHMA #4 | Removal of Legacy Waste         | 80% Complete, FC End of Q1 2019<br>In progress                                                                | Characterization/packaging and disposal of legacy material at the SONGS site. Includes Radioactive and Mixed Waste disposition.                                  |
| ALSHMA #6 | Unit 1 RVI Prep/Planning        | 5% Complete, FC End of January 2019<br>On hold pending completion of causal analysis related to strap removal | Preparation of the Unit 1 RPV shipment to Clive Utah. Involves machining 3/4" off of the sides of the package for clearance on the rail conveyance.              |



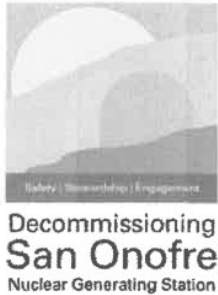
Decommissioning  
San Onofre  
Nuclear Generating Station

# Decommissioning Update

## Asbestos

- Planned site characterization surveys (Sept '18) indicated friable asbestos:
  - Containments & 63' Unit 3 Penetration Lobby area, Unit 3 Pen. Rooms 411 and 406, 68' Radwaste Annex.
  - Unit 3 Pen. Lobby and 68' Annex have now been cleaned by specialty contractor; allows unfettered access to Fuel Buildings for FTO
- Source may be attributed to "Rockbestos" power cables which run from the Reactor Vessel to the Control Room
- Other areas of the plant wipe samples show no friable asbestos.
- **All** air samples in various areas of the plant and around the plant perimeter showed results below OSHA Permissible Exposure Limit





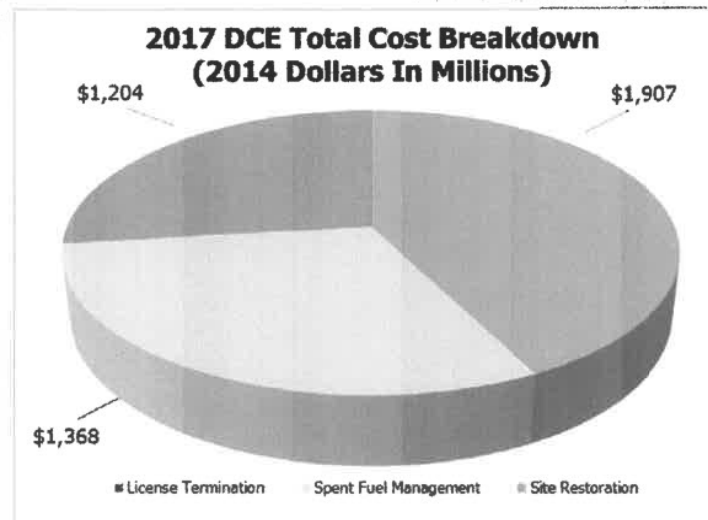
# Decommissioning Update

## Asbestos

- Worker safety; power block occupied rooms:
  - Wipe sampling, air sampling, and lapel air sampling on certain employees
- Unit 3 Penetration Rooms 411 and 406, Containment, will continue to require Asbestos PPE to enter as further plans are developed
- Oct 24<sup>th</sup>, NRC inspector briefed while on site for Quarterly Inspection
- Going forward:
  - SDS is anchoring a housekeeping process in the RCA and Control Buildings to minimize dust accumulation on floors and surfaces
  - Isolation and removal of the Asbestos source will be accomplished as part of the SDS D&D work

# 2017 DCE Total Cost Breakdown

**2017 DCE Total Cost = \$4.479B**



## Description of Cost Categories:

1. **License Termination:** Decommissioning planning through reactor and other plant system dismantlement & decontamination ("D&D")
2. **Spent Fuel Management:** Expansion of onsite fuel storage facility (ISFSI), cask loading and transfer from fuel pools to ISFSI, ongoing management until DOE removes fuel, and ultimate demolition of the ISFSI
3. **Site Restoration Costs:** Clean building demolition and site grading



Decommissioning  
**San Onofre**  
Nuclear Generating Station

# CONTRACTOR OVERSIGHT

# Contractor Oversight

## Unit 1 RPV Packaging field work error

### Immediate actions for DA Oversight improvements:

- Conducted an Event review with all DA Oversight Managers:
  - Reinforced “pre-planning” aspect of Oversight preparation activities
  - Stressed work package work-step reviews in the Pre-Job briefing.
- Conducted a refresher on using risk-prioritized list of SDS planned work to focus DA Oversight activities
- Conducted a Lessons Learned discussion on the Event with all Oversight Specialists; awareness and actions to prevent re-occurrence.

# Contractor Oversight

## (continued)

Immediate actions provided to SDS:

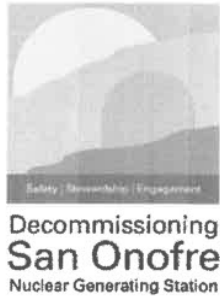
- Requested procedure revision of SDS Technical Readiness Review (TRR) procedure:
  - Include expectations of what documents must be provided to the DA Oversight prior to the TRR meeting.
- Requested procedure revision of SDS Work Control Process:
  - Require a minimum 48 hour notice to the DA Oversight prior to the initial start of ALSHMA and TRR required work activities
    - Allows DA Oversight to be properly prepared and staffed





Decommissioning  
**San Onofre**  
Nuclear Generating Station

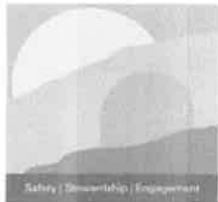
# COMMUNITY OUTREACH



# Community Outreach

## CEP: Future engagements

- Updates at major milestones to CEP leadership as FTO resumption approaches
- Some form of public outreach at resumption of FTO
- Quarter CEP regular meetings
- Community workshops for spotlight issues, e.g.;
  - Extreme Events, Understanding radiation, Radiation monitoring & public data, and Emergency response



Decommissioning  
**San Onofre**  
Nuclear Generating Station

# GENERAL DISCUSSION

LEVIN TR?  
253  
CBO?



# Decommissioning San Onofre

Nuclear Generating Station

# San Onofre Decommissioning Project

NRC Region –IV  
Drop-in Meeting

Doug Bauder  
VP Decommissioning and CNO

December 18, 2019

Decommissioning San Onofre Nuclear Generating Station | Safety | Stewardship | Engagement





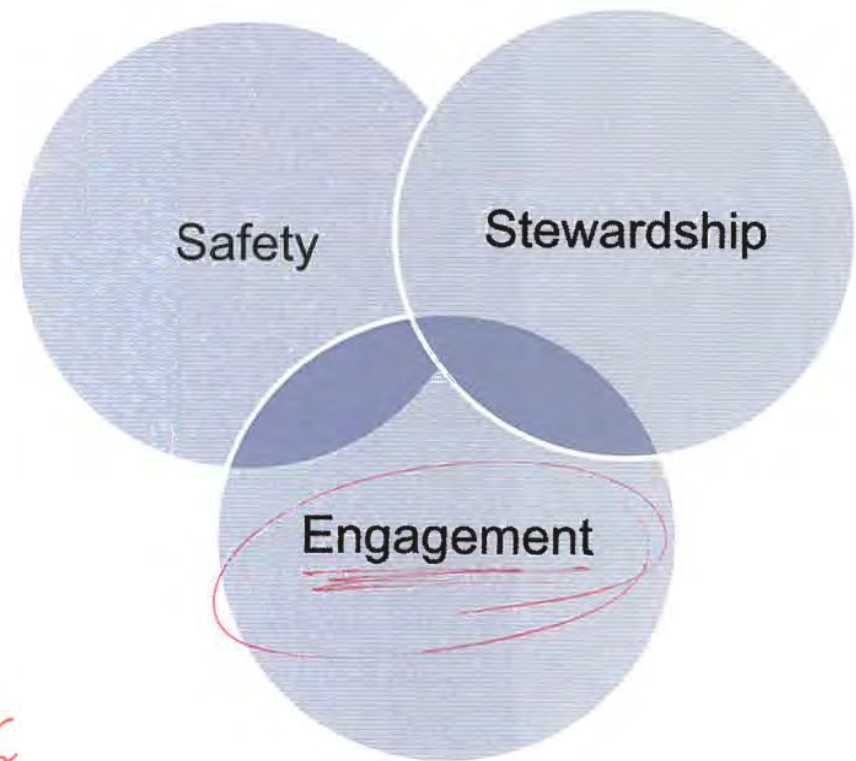
# Introductions

- Nuclear Regulatory Commission
- Southern California Edison



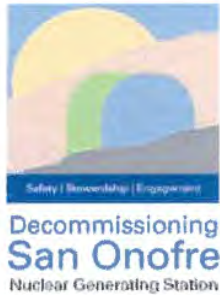
# Goal & Principles

Complete decommissioning in a safe, timely, transparent, & cost-efficient manner while maintaining high standards of environmental protection



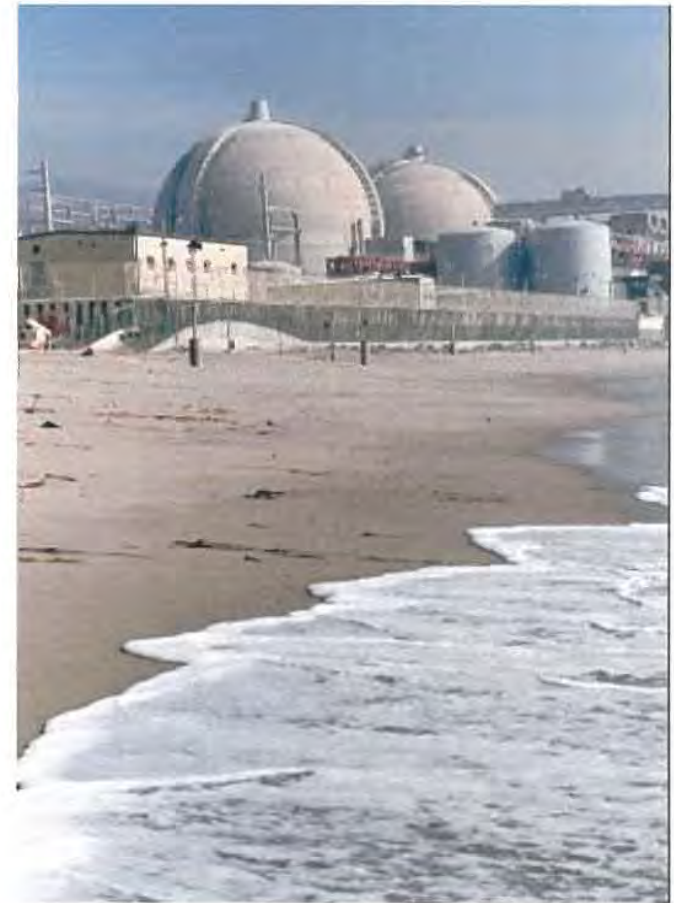
*RAD WASTE  
DISCHARGE  
VIDEO  
RELEASED*

*[ONGO]  
COMMUNITY  
WEBSITE*



# San Onofre Plant History

- **Unit 1**
  - Online January 1968
  - Retired 1992, partially decommissioned
- **Units 2 and 3**
  - Online November 1983, April 1984
  - Retired June 7, 2013
- **Spent Fuel Storage**
  - Over 50 years of safe storage
  - Dry Cask Storage since 2003





Decommissioning  
**San Onofre**  
Nuclear Generating Station

# Oversight of Contractors

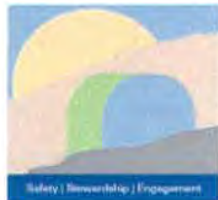


\* OPE SHARING WRT  
DECOM NOT VERY GOOD

# Oversight Model

- Decommissioning Agent Oversight
  - Contract Technical Representatives (new) – facilitative
  - Oversight Specialists – programmatic observations- strengthened
- Nuclear Oversight Division - NOD ("QA")
  - Parts 50 and 72 license compliance
  - Oversight of vendor QA requirements
- As we transition into Decontamination & Dismantlement (D&D)
  - DA Oversight will focus on radiological safety and compliance, and industrial safety
  - NOD oversees radiological, environmental, waste, and Independent Spent Fuel Storage Installation (ISFSI)

SCE



Decommissioning  
San Onofre  
Nuclear Generating Station

# Oversight Model

## Holtec work #

| HOLTEC Supervision (CLS/PM)                                                                                                                                                                                                                                                                                                                                                                               | Contractor Technical Representatives (CTR)                                                                                                                                                                                                                                                                                                      | Oversight Specialists (OS)                                                                                                                                                                                                                                                                                                                                                  | NOD / QA                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Responsible for command and control</li> <li>Lead pre-job briefs</li> <li>Provide direction to technicians</li> <li>Make field decisions when appropriate</li> <li>Responsible for nuclear, radiological, and industrial safety for individuals and work activities under their direction.</li> <li>Adhere to procedures</li> <li>Verify qualifications</li> </ul> | <ul style="list-style-type: none"> <li>First Line of Oversight</li> <li>Realtime, Direct, and Facilitative interaction / guidance with Holtec CLSs &amp; PMs to ensure program compliance.</li> <li>Provide forward looking feedback to ensure proper resources and materials are ready for execution.</li> <li>Review work packages</li> </ul> | <ul style="list-style-type: none"> <li>Second Line of Oversight</li> <li>Performs planned and structured oversight activities of select Holtec Activities to ensure program compliance.</li> <li>Performs "big picture" oversight of Holtec activities, including CTR interface, to ensure project is being executed in accordance to management's expectations.</li> </ul> | <ul style="list-style-type: none"> <li>Third line of Oversight</li> <li>Performs planned oversight activities of Holtec activities, focused on Holtec QA Plan, and the DQAP.</li> <li>Performs spot observations of the OSs/CTRs, to ensure that they are performing their responsibilities.</li> <li>Performs planned assessments of the Holtec Programs to ensure DQAP compliance.</li> </ul> |



# Spent Fuel Management



# Spent Fuel Management Strategy

1. Promptly offload fuel from pools to passive dry cask storage
2. Build a coalition to support all safe and reasonable options to remove spent nuclear fuel from San Onofre site
3. While onsite, SCE will safely manage the spent nuclear fuel and maintain it for transportation off site
  - Pioneering canister inspection & in-situ weld overlay repair techniques
  - Heated, full sized mockup Multi-Purpose Canister (MPC) for Aging Management
4. Prepare the documentation packages to demonstrate readiness for transport
5. Recover spent fuel storage costs from U.S. Department of Energy

# Fuel Transfer Status Restart

- Cleared canister incidental contact issues:
  - Examined 8 canisters in-situ; state of the art imaging
  - Revised 72.212 to account for incidental contact
  - NRC reviewed and found acceptable
- Extensive reviews prior to restart



# Fuel Transfer Status

44/73

- 14 downloads complete since 7/15/19 restart
- Effective Problem Identification & Resolution (PI&R) and continuous improvement
- Conservative bias towards reporting
- Safety over schedule
- Expected completion mid-2020





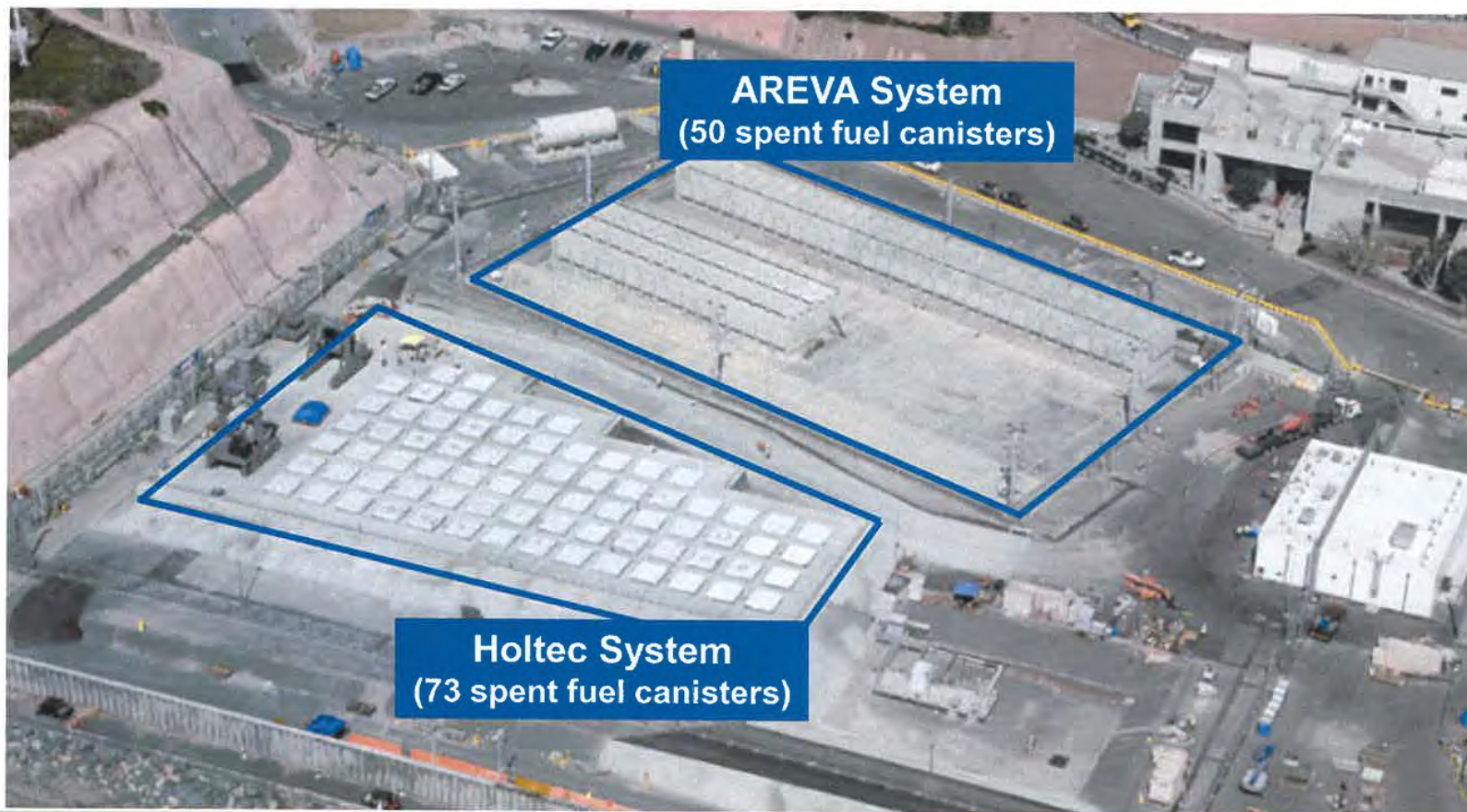
## Lessons Learned #

- Oversight model needs to be facilitative and appropriately critical
- A comprehensive systematic approach to training is needed for dry storage operations
- Management's recognition and support for the craft's needs is paramount
- Procedural development is continuous



# SONGS Independent Spent Fuel Storage Installation

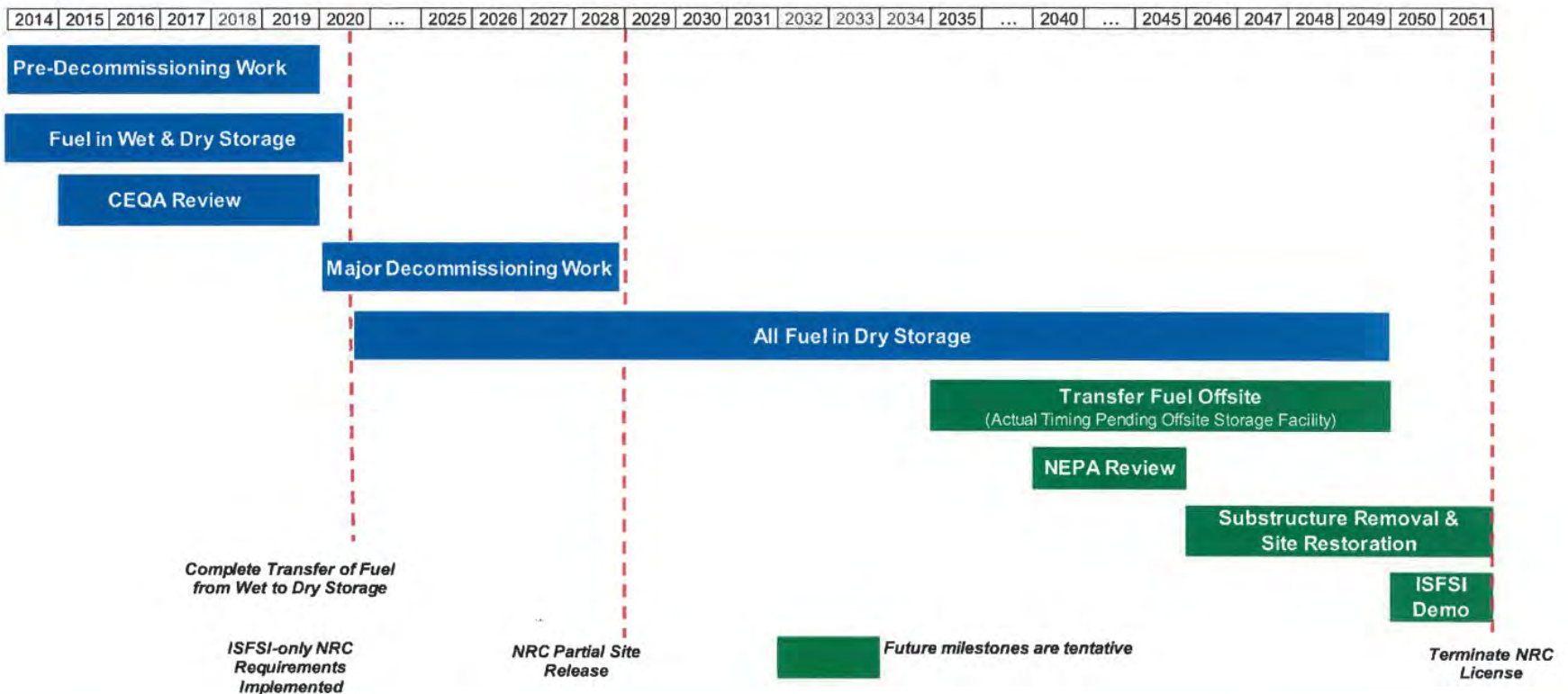
Provides Passive Dry Cask Storage for Spent Fuel While On Site



# Decontamination and Demolition

# Decommissioning Plan

## SONGS Decommissioning Plan





# Onshore Post-Decommissioning

Switchyard

ISFSI

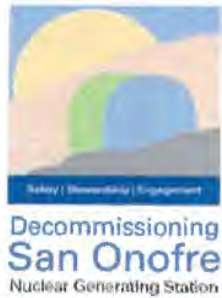
Seawall, Walkway and Riprap

*At completion of the on-shore decommissioning work only the ISFSI, Switchyard, and seawall/walkway/rip-rap will remain*



Decommissioning San Onofre Nuclear Generating Station Safety | Stewardship | Engagement





# Permitting Plan #

## **Approved ISFSI (2015 to 2035)**

Ongoing ISFSI operation and maintenance approved under existing Coastal Development Permit (CDP)

## **Proposed Project (2019 to 2028) – Analyzed in Environmental Impact Report (EIR)**

Prompt D&D of onshore facilities to meet NRC requirements for unrestricted use of site and disposition offshore conduits

## **Future Activities (~2035) – Subject to future California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) reviews**

ISFSI removal, additional substructure removal (Units 1/2/3), shoreline structure disposition (seawall, walkway, and riprap), and final site restoration (2035 or later)\*

\* Subject to availability of suitable offsite fuel storage facility





# Decommissioning Next Steps

## Years 1- 5 #

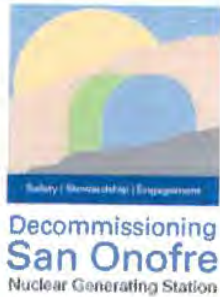
### Present - 2020

- Complete fuel transfer from wet to dry storage
- Transition from a plant site to a construction site
- Early building demolition
- Upgrade rail spurs, create laydown area for materials

### 2021 - 2025

- Large component removal
  - Reactor vessels, steam generators, pressurizers
  - Remove radiological hazards
- Dispose of components and materials
- Complete radiological releases to the ocean

*400 to 600 construction jobs will be needed for decommissioning*



# Decommissioning Next Steps

## Years 6 – 10 #

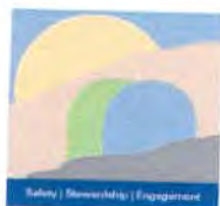
### 2026 - 2029

Following hazard removal/mitigation

- Open air demolition work
- Major building demolition
- Backfill and site grading
- NRC license modified to ISFSI-only
- ISFSI, switchyard and shoreline protection features remain

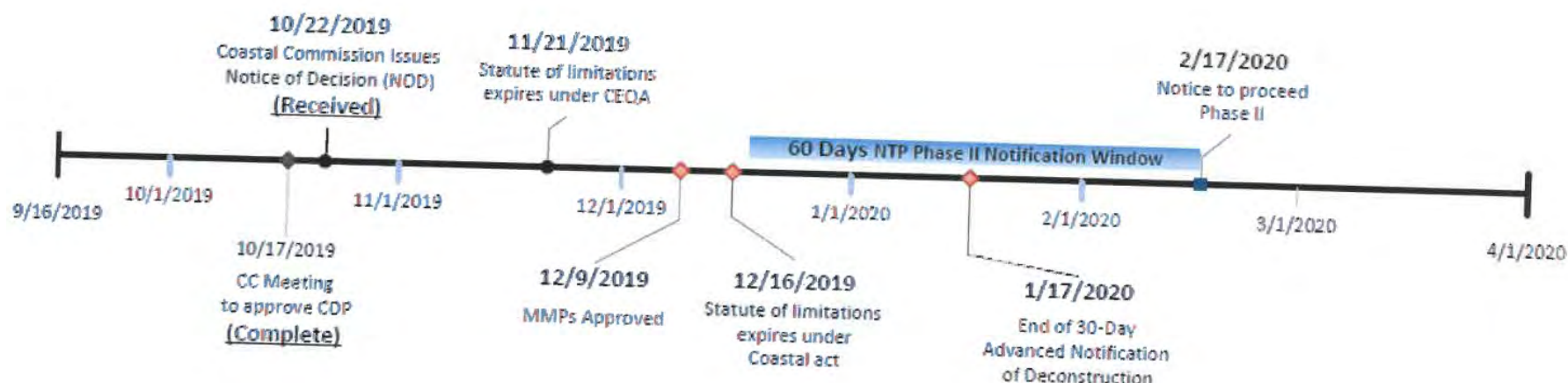
### Subsequent milestones

After fuel is transferred, ISFSI demolished and site restored per Navy and Coastal Commission requirements



Decommissioning  
San Onofre  
Nuclear Generating Station

# Near-Term Timeline to start D&D





# Examples of Oversight Focus Areas during D&D ##

- **CAP** – ensure contractor CAP has sufficiently low threshold and the timeliness and effectiveness of corrective actions
- **On-boarding of personnel** – Correct level of “nuclear” training and safety training
- **Heavy load handling** and rigging activities
- **Containment Prep work** – Asbestos abatement, missile shield removal, de-tensioning containment tendons, cut access hole in containment
- **RVI cutup** – tooling design and performance, load handling, radiological management
- **Unit 1 RPV shipment**
- **Waste Handling and Disposal**

# External Engagement

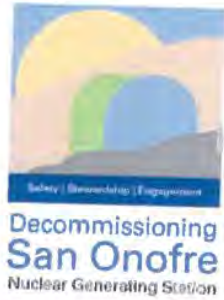




# Education and Mobilization

SCE uses several methods to educate the public on decommissioning and mobilize efforts to move the spent fuel to an offsite location

- Community Engagement Panel, quarterly
- Public Walking Tours
  - Local residents
  - High School and College STEM classes
  - Boy Scouts
  - Local politicians
- Coalition, providing local, state and federal legislation support
- Experts Team and 3<sup>rd</sup> party consultants
  - Strategic Plan Development
  - Conceptual Transportation Plan



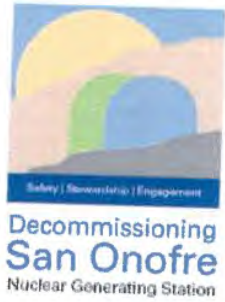
# Staying Informed

## **SONGSCommunity.com website provides the following information**

- Community Engagement Panel meeting dates
- Public Walking Tour dates and sign ups
- Decommissioning blog and news updates

## **Decommissioning Monitoring (*available starting 1Q2020*)**

- Radiological monitoring reports, via the CA Depart of Health
- Ocean discharge release notifications
- Truck traffic updates



# Decommissioning Principles

**Southern California Edison and co-owners committed to:**

***Safety***

***Stewardship***

***Engagement***

# Questions



**From:** [Vaaler, Marlayna](#)  
**To:** [Browder, Rachel](#); [Evans, Robert](#); [Anderson, Stephanie](#)  
**Cc:** [Katanic, Janine](#); [Watson, Bruce](#)  
**Subject:** FW: RE: Availability for Meeting Regarding SONGS Decommissioning Issues  
**Date:** Friday, August 17, 2018 1:19:52 PM  
**Attachments:** [image001.jpg](#)  
[image002.jpg](#)  
[image003.jpg](#)  
[image004.jpg](#)

---

Good afternoon everyone!

Some of you might remember that the San Diego Regional Water Quality Control Board had a public meeting back in June regarding the decommissioning activities at SONGS, and it got a little heated. Ever since then they have been trying to get the NRC to come out and talk to the Water Board members about our role in the decommissioning process (among other things, see **highlighted** questions below). We have been politely putting them off or offering teleconferences in lieu of meetings because our travel budget and schedule in general is not overly supportive of running out to California whenever one of the State agencies has questions.

However, it looks like SCE has invited them to tour SONGS and discuss some of these follow-up questions in September, and since the Water Board folks know we are also conducting an inspection in September, they are wondering if they could take the opportunity to speak to some of the NRC staff as well. So I figured I would check in with you to see if this is something you are willing to entertain on top of your other planned inspection activities for that week...especially given the pending special inspection and general swirl of activity surrounding SONGS right now.

If so, I can work with the Water Board folks to figure out a schedule and an agenda for this visit and try to figure out what questions they really have for the NRC (while noting that none of us are experts in ALL the decommissioning areas at once so may not be able to answer all questions). If not, that is fine as well, just let me know and I will pass along the message to the Water Board representative, but I at least wanted to do my due diligence and ask!

In any case, let me know what you think, give me a shout if you have any questions or need anything additional, and have a wonderful weekend!

Cheers,  
Marlayna

301.415.3178

---

**From:** Barker, David@Waterboards [mailto:David.Barker@waterboards.ca.gov]

**Sent:** Friday, August 17, 2018 1:48 PM

**To:** Vaaler, Marlayna

**Cc:** Neill, Ben@Waterboards ; Outwin-Beals, Brandi@Waterboards

**Subject:** [External\_Sender] RE: Availability for Meeting Regarding SONGS Decommissioning Issues

Hi Marylayna – I wanted to check in with you regarding scheduling the meeting with our Board members we were discussing. Since we last talked David Asti of SCE has invited our Board Members for a tour of the SONGS facility. We are looking to schedule the tour sometime in the latter part of the September time frame. **I was wondering if we might be able to coordinate having NRC staff meet with the Board Members at the SONGS facility on the same day of the tour.** Perhaps it could a joint meeting with SCE staff present as well.

We have accepted SCE's offer for the tour and are looking to set the date in the near future. Let me



know your thoughts.

Thanks,  
David

---

**From:** Barker, David@Waterboards  
**Sent:** Monday, July 16, 2018 8:33 PM  
**To:** 'Vaaler, Marlayna' <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Cc:** Neill, Ben@Waterboards <[ben.neill@waterboards.ca.gov](mailto:ben.neill@waterboards.ca.gov)>; Outwin-Beals, Brandi@Waterboards <[Brandi.Outwin-Beals@waterboards.ca.gov](mailto:Brandi.Outwin-Beals@waterboards.ca.gov)>  
**Subject:** RE: Availability for Meeting Regarding SONGS Decommissioning Issues

Thank you for the follow-up Marlayna. I am on leave and will return to work on August 1. We can resume our discussion on setting up a meeting at that time.

–David

---

**From:** Vaaler, Marlayna  
**Sent:** Monday, July 16, 2018 10:10 AM  
**To:** 'David.Barker@waterboards.ca.gov' <[David.Barker@waterboards.ca.gov](mailto:David.Barker@waterboards.ca.gov)>  
**Cc:** 'Ben.Neill@waterboards.ca.gov' <[Ben.Neill@waterboards.ca.gov](mailto:Ben.Neill@waterboards.ca.gov)>; 'Brandi.Outwin-Beals@waterboards.ca.gov' <[Brandi.Outwin-Beals@waterboards.ca.gov](mailto:Brandi.Outwin-Beals@waterboards.ca.gov)>  
**Subject:** RE: Availability for Meeting Regarding SONGS Decommissioning Issues

Hi David et al!

I hope that you all had a great weekend! I didn't want you to think I had forgotten about the request below...now that we are back from SONGS I am trying to work out with my management what the best path forward is regarding the Board's questions and a potential meeting with members of our staff at some point in the not too distant future.

In the meantime, if it helps I have attached a letter we sent back at the end of 2015 in response to a request to attend a meeting on the SONGS NPDES permit. It contains a high level overview of the NRC's effluent monitoring requirements during decommissioning and might be of some help to your board members.

Please let me know if you have any questions or need anything additional in the meantime!

Marlayna  
301.415.3178

---

**From:** Barker, David@Waterboards [<mailto:David.Barker@waterboards.ca.gov>]  
**Sent:** Friday, July 06, 2018 5:27 PM  
**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>  
**Cc:** Neill, Ben@Waterboards <[Ben.Neill@waterboards.ca.gov](mailto:Ben.Neill@waterboards.ca.gov)>; Outwin-Beals, Brandi@Waterboards <[Brandi.Outwin-Beals@waterboards.ca.gov](mailto:Brandi.Outwin-Beals@waterboards.ca.gov)>  
**Subject:** [External\_Sender] RE: Availability for Meeting Regarding SONGS Decommissioning Issues

Hi Marlayna,

Thank you for your efforts in coordinating a meeting. We would prefer the possibility of scheduling a face-to-face meeting with NRC sometime during NRC's planned inspection of the SONGS facilities in September if that can be worked out. Let's try to plan a date for September.

As previously discussed San Diego Water Board had an informational item update at their June 20, 2018 meeting on the decommissioning process underway at SONGS and the storage of spent fuel at the site. Both Southern California Edison and Board staff provided an update on issues. Several Board Members had questions that were not answered at the Board Meeting in sufficient detail on various issues outlined below.

The Board Members would be interested in NRC's perspective and regulatory framework for the decommissioning process underway at SONGS, including status of the spent nuclear fuel storage, operation and maintenance of the Independent Spent Fuel Storage Installation, and any planned intended releases of effluent containing radioactive materials or byproducts from SONGS during the decommissioning process.

There was some discussion by Board members to consider development of a new Water Board strategy to participate in on-going efforts by others to compel a federal solution to the final disposition and storage of spent nuclear fuel from SONGS. The Board members would be interested in hearing NRC's perspective on the status of the federal process for selecting, and developing repositories suitable for off-site interim storage and/or off-site permanent disposal of spent nuclear fuel from SONGS Units 1,2 and 3.

Some other ancillary issues of interest to some Board members included the following:

1. How many curies of radioactivity are stored on SONGS site relative to the curies of radioactivity stored at Chernobyl and Fukushima as well as released from the nuclear accidents at those sites? What is the status of the area around the accident sites out to 20 kilometers?
2. Detail on calculation of decommissioning costs presented by Southern California Edison and if the estimated costs included inflation.

That's' it for now.

--Regards

David Barker

Direct Line: (619) 521-3007

E-mail: [David.Barker@waterboards.ca.gov](mailto:David.Barker@waterboards.ca.gov)

---

**From:** Vaaler, Marlayna [<mailto:Marlayna.Vaaler@nrc.gov>]

**Sent:** Thursday, July 05, 2018 7:23 AM

**To:** Barker, David@Waterboards <[David.Barker@waterboards.ca.gov](mailto:David.Barker@waterboards.ca.gov)>

**Cc:** Neill, Ben@Waterboards <[Ben.Neill@waterboards.ca.gov](mailto:Ben.Neill@waterboards.ca.gov)>; Outwin-Beals, Brandi@Waterboards <[Brandi.Outwin-Beals@waterboards.ca.gov](mailto:Brandi.Outwin-Beals@waterboards.ca.gov)>

**Subject:** Re: Availability for Meeting Regarding SONGS Decommissioning Issues

Hi David!

I had a chance to chat with my supervisor this morning, and unfortunately I am not sure we will be able to support an in person meeting on short notice next week. This is mostly due to the fact that we are also escorting five foreign nationals from Korea during the inspection, so it is going to be hard for either of us to sneak away and come down to San Diego for a face-to-face meeting.

In lieu of that could we set up a phone call with your board members and try to answer any of their questions? After that we can definitely provide any additional information or background that they may be interested in regarding decommissioning, inspections, effluent monitoring, etc.

Please let me know what you think, and if any of these options will work for you, and we can figure it out from there! Give me a shout if you need anything in the meantime, and I will talk to you soon!

Cheers,



Marlayna  
301.415.3178

---

On: 03 July 2018 22:43,  
"Barker, David@Waterboards" <[David.Barker@waterboards.ca.gov](mailto:David.Barker@waterboards.ca.gov)> wrote:

Hi Marlanya,

During your phone conversation on June 28 with me and Ben Neill, you indicated you were planning on being at SONGS the week of July 9. I wanted to do a preliminary check on your availability to meet with San Diego Water Board Executive Officer, Dave Gibson, and a couple of Board Members sometime in the week of July 9 and give them a general overview on NRC's role and overall status on the decommissioning and the storage of spent fuel at SONGS.

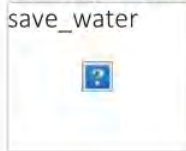
Please let me know your availability for such a meeting and where it might fit on your schedule. I will be discussing the possibility of scheduling this on Thursday July 5 with our Executive Officer and can get back with you on what would work schedule wise on this end.

Thanks,

David Barker  
David Barker P.E., Chief  
Surface Water Protection Branch



2375 Northside Drive, Suite 100  
San Diego, CA 92108  
Direct Line: (619) 521-3007  
Front Desk: (619) 516-1990  
E-mail: [David.Barker@waterboards.ca.gov](mailto:David.Barker@waterboards.ca.gov)  
San Diego Water Board Website: [http://www.waterboards.ca.gov/sandiego/save\\_water](http://www.waterboards.ca.gov/sandiego/save_water)



---

**From:** Vaaler, Marlayna [<mailto:Marlayna.Vaaler@nrc.gov>]  
**Sent:** Thursday, June 28, 2018 10:59 AM  
**To:** Neill, Ben@Waterboards <[Ben.Neill@waterboards.ca.gov](mailto:Ben.Neill@waterboards.ca.gov)>  
**Subject:** RE: RE: Discussion of SONGS Meetings

Hi Ben!

As discussed, please find attached the readily available information I could track down on the 2006 groundwater contamination at SONGS 1. I believe the NRC response letter to the Surfrider organization does the best job of summarizing the event, describing follow-up activities, and outlining the NRC regulatory practices / responsibilities. I have also included the NRC Inspection Report the letter references as it contains more detailed information. The other documents also have some interesting tidbits on all the questions we received on this topic from various stakeholders, so I am including them just in case you are interested! Please let me know if you have any questions or need anything additional and have a great



day!  
Cheers,  
Marlayna  
301.415.3178

---

**From:** Neill, Ben@Waterboards [<mailto:Ben.Neill@waterboards.ca.gov>]

**Sent:** Thursday, June 28, 2018 12:50 PM

**To:** Vaaler, Marlayna <[Marlayna.Vaaler@nrc.gov](mailto:Marlayna.Vaaler@nrc.gov)>

**Subject:** [External\_Sender] RE: Discussion of SONGS Meetings

Hi Marlayna,

David Barker would like to join our phone discussion. Could you please call his office? And I will be in his office with him.

David's phone number is (619) 521-3007.

Ben Neill

Office: (619) 521-3376

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

**From:** Vaaler, Marlayna [<mailto:Marlayna.Vaaler@nrc.gov>]

**Sent:** Tuesday, June 26, 2018 9:46 AM

**To:** Vaaler, Marlayna; Neill, Ben@Waterboards

**Subject:** Discussion of SONGS Meetings

**When:** Thursday, June 28, 2018 1:00 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:** Teleconference Only

Hi Ben!

Since it seems like things are crazy for both of us this week I thought it might be best to have an "official" time set up to chat about SONGS. Please feel free to propose another time if this one doesn't work for you...I am free any time after 7 AM PST on Thursday ☺ I can plan to call you if that is easier, or if other folks want to join we can use a bridge line... just let me know and I can update this scheduler as needed!

Hope all is well in the meantime and I will talk to you soon!

Marlayna

301.415.3178