

Official Transcript of Proceedings
NUCLEAR REGULATORY COMMISSION

Title: Public Meeting to Gather Comments
on the Duane Arnold Post-shutdown
Decommissioning Activities Report

Docket Number: (n/a)

Location: Palo, Iowa

Date: Tuesday, September 28, 2021

Work Order No.: NRC-1669

Pages 1-18

NEAL R. GROSS AND CO., INC.
Court Reporters and Transcribers
1716 14th Street, N.W., Suite 200
Washington, D.C. 20009
(202) 234-4433

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
+ + + + +
PUBLIC MEETING TO GATHER COMMENTS ON THE
DUANE ARNOLD POST-SHUTDOWN
DECOMMISSIONING ACTIVITIES REPORT

+ + + + +
TUESDAY
SEPTEMBER 28, 2021

+ + + + +

The Public Meeting was convened in the Palo Community Center Gym, 2800 Hollenbeck Road, Palo, Iowa, at 6:00 p.m., Bruce Watson, NRC Reactor Decommissioning Branch Chief, presiding.

PRESENT:

- BRUCE WATSON, RD Branch Chief
- RHEX EDWARDS, Senior Health Physicist
- KIM CONWAY, Project Manager
- CHRISTIAN DENNES, Project Manager
- DAVID HILLS, Region III Office Branch Chief
- VIKTORIA MITLYNG, Office of Public Affairs

P R O C E E D I N G S

(6:00 p.m.)

1
2
3 MR. WATSON: Okay, I guess we'll get
4 started. I'm going to have to speak into the
5 microphone because Mr. LeGrand here is going to be
6 recording the meeting, and there will be a transcript
7 published of it and it will be made publicly available
8 on our ADAMS System. It will also be posted with a
9 meeting summary of the meeting that will also be
10 published, probably by Kim Conway and Christian Dennes
11 who are the two PMs in the back who are a part of my
12 branch.

13 Anyway, my name is Bruce Watson. I think
14 I know most of you, I've met you before. I'm Chief of
15 the Reactor Decommissioning Branch at headquarters,
16 NRC headquarters, in the Office of Nuclear Material
17 Safety and Safeguards. So, my branch is responsible
18 for the licensing functions and the overall
19 programmatic oversight of the decommissioning program,
20 in particular, the reactor decommissioning program.

21 I'm wearing a mask along with the NRC
22 employees because we are required to wear them. Since
23 this is considered an extension of our office, we're
24 required to wear them. But it's a Federal requirement
25 on us, not on the state or everybody else. You're

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 free to wear a mask or not. It doesn't really bother
2 anybody here I think. So, you know, I wish we could
3 play by your rules.

4 So, we had planned to hold this meeting
5 about over a year ago, and then we had the COVID-19
6 pandemic hit. So, we are required by Federal law to
7 hold this meeting in-person, and with all the
8 restrictions, we weren't able to come here in-person.
9 So, in July, we had some restrictions listed in New
10 York, and so we held a public meeting up there for the
11 Indian Point plant. Then we came out here, and we
12 still have one more to do that was submitted during,
13 right before the pandemic. Actually, we had planned
14 to do a public meeting in California the week we got
15 sent home from our offices with the pandemic.

16 So, anyway, to make a long story short,
17 I've already introduced Kim and Christian Dennes in
18 the back. From our Region III Office, we have David
19 Hills who is the Branch Chief for inspecting the
20 plant, and Senior HP Inspector is Rhex Edwards. Him
21 and Kim are actually performing an inspection of the
22 plant this week. I'm going to have to do something
23 with this.

24 So, with that, I'll go ahead and mention
25 we are here to collect or obtain -- oh, I'm going to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 have to get rid of this. Just scoot apart.

2 We are here to obtain public comments on
3 the Duane Arnold Post-Shutdown Decommissioning
4 Activities Report, and so we'll have a presentation on
5 that. We are going to hold a virtual meeting next
6 Thursday, a webinar for those people who chose not to
7 come to this meeting. It's been kind of a tagalong
8 because there is some aversion to people coming to
9 public meetings. So, that will also be hosted by
10 myself and with the support -- I'm sorry, I forgot to
11 introduce Vikka, she's from our Office of Public
12 Affairs.

13 So, Vikka and I will be doing, along with
14 probably Rhex and some of my staff, doing that
15 particular webinar, as we have from the other plants
16 that are shut down. I think we did one here over a
17 year ago, two years ago maybe, when the plant
18 announced it was shutting down.

19 So, I think I've got all the preliminaries
20 out of the order, out of the way. Like I said, we're
21 here to collect your comments on the PSDAR, the Post-
22 Shutdown Decommissioning Activities Report. So, with
23 that, I'll go ahead and begin. Let's bring in Slide
24 1.

25 All right. So, again, our purpose is to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 collect comments on the post-shutdown decommissioning
2 activities. We have certain procedures we have to
3 follow. I've already done the introductions. We've
4 begun the NRC presentation, and then we'll go over
5 some ground rules which I don't think we're really
6 going to need many since we don't have a huge crowd
7 here. So, speakers, we'll give you plenty of time to
8 provide us comments.

9 We'll be looking, if there is any, elected
10 or state or local officials or Native American tribes
11 that want to make comments. We'll probably, we'll ask
12 for those first, and then we'll go to public comments.
13 Then we will close the meeting at 9:00 o'clock, if not
14 earlier, assuming that we don't have a giant crowd
15 show up in the next hour or so. So, with that, let's
16 go to the next slide.

17 The NRC has a lot of decommissioning
18 experience, and we have basically terminated almost 80
19 complex material sites. We include in that not only
20 the complex material sites that do uranium and thorium
21 work and other radioactive materials, but also we've
22 done 10 reactors that are included in that, power
23 reactors, and I think 18 research reactors. So, I
24 think we've got a lot of experience, at least I think
25 we've got more experience in any other country in the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 world at this point.

2 One of the things I wanted to point out is
3 that the regulations are performance-based and risk-
4 informed. So, we allow a lot of flexibility for the
5 licensees in determining their course of the
6 decommissioning activities. That includes, you know,
7 the completion of the decommissioning at the end of 60
8 years, and so it has to be done by then. It's not
9 allowed to go on. We just had a recent ruling vote
10 from the Commission reaffirming that 60-year rule for
11 a California plant that requested an extension to
12 that. So, it's been reaffirmed that it will stay at
13 60 years, and so we'll do that.

14 So, with the next slide, let's go. Right
15 now, the program has grown dramatically over the last,
16 I'll say since 2013 when Kewaunee first shut down. We
17 now have 17 units in active decommissioning, so we
18 have a lot of work going on in the country. Of
19 course, some of these are multi-unit sites but they
20 are in active decommissioning by our definition.
21 They're working to start either planning, at various
22 stages of the decommissioning, whether planning and
23 actively decommissioning, or in the process of either
24 planning or moving spent fuel to the dry fuel storage
25 which is generally one of the first steps in the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

(202) 234-4433

www.nealrgross.com

1 decommissioning process. There are nine units in
2 SAFSTOR and that would include Duane Arnold as of
3 today. So, next slide.

4 I'll turn it over to Rhex and let him talk
5 about the inspection program.

6 MR. EDWARDS: Thanks, Bruce, and good
7 evening, everyone. My name is Rhex Edwards. I am a
8 Spent Fuel Storage and Reactor Decommissioning
9 Inspector.

10 Shortly after Duane Arnold shut down, the
11 inspection responsibilities at the site were
12 transferred over to my team, which is consisting of a
13 group of inspectors in the NRC's Region III Office out
14 of Lisle, Illinois. As we all know, Duane Arnold
15 currently has a license issued by the NRC. For as
16 long as they have that license, we will be performing
17 inspections at the plant. These inspections will
18 continue to provide oversight of reactor
19 decommissioning activities, safe storage of spent
20 fuel, as well as security at the site.

21 This slide provides a bit of background on
22 our decommissioning inspection program. Certain
23 inspections are going to happen every year at the
24 site, we refer to those as core inspections. Then
25 other inspections will be done as needed, as

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 conditions are appropriate. We refer to those as
2 discretionary inspections. We scale our inspections
3 relative to the work that's occurring on site. So,
4 when there's more active decommissioning activities
5 occurring, we are on site more for those activities.

6 Spent fuel at Duane Arnold is being stored
7 at both spent fuel pool as well as a dry cask storage
8 facility or an independent spent fuel storage
9 installation. As indicated in the Post-Shutdown
10 Decommissioning Activities Report, the site is making
11 preparations to move all of that spent fuel out of the
12 spent fuel pool and into dry cask storage beginning in
13 2021. To support this, an additional storage pad has
14 been constructed north of the existing pad. NRC had
15 inspectors review the design of that part of
16 construction, and then we were also on site to observe
17 some of the key construction activities.

18 Once the movement of fuel from the spent
19 fuel pool begins into dry cask storage, we'll have an
20 inspector periodically on site to observe those
21 lowering operations until the fuel is moved into, or
22 all the fuel is moved out of the pool and is in the
23 independent spent fuel storage installations. Then
24 after that, even when the fuel is all in dry cask
25 storage, NRC inspectors will periodically return to

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 the site and evaluate the monitoring of those
2 canisters containing fuel.

3 With that, Bruce, back to you.

4 MR. WATSON: Okay, one of the key things
5 that I want everyone to understand is the NRC doesn't
6 go away just because a plant is shut down. We're
7 going to be here until all the radioactive material is
8 removed and meets our standards for terminating the
9 licenses. By that, I mean, the reactor site and the
10 dry fuel storage, no matter how
11 long it takes to get it out of there.

12 So, a few facts about Duane Arnold. It
13 started operating in 1974. The license was renewed in
14 2010. On August 10th, due to the derecho, it was shut
15 down permanently on August 10th, 2020.

16 So, with that shutdown, NextEra submitted
17 a number of certifications. One was they had
18 permanently ceased operations, and they also certified
19 that they permanently removed the fuel from the
20 reactor. With that second certification, they could
21 no longer load the fuel back in the reactor and
22 operate it. So, it's very clear that they're in
23 decommissioning. They'd have to reapply to operate
24 the plant again.

25 So, they submitted the Post-Shutdown

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 Decommissioning Activities Report, or we call them
2 PSDAR, on August 2nd, 2020. You can find that, if
3 you're familiar with our NRC archival system for
4 documents, this is the ML number, the ADAMS ML number
5 is on the slide. So, if you're familiar with that,
6 you can find that, and it's available on our public
7 website. Just go to ADAMS and put in that number.

8 So, what is a Post-Shutdown
9 Decommissioning Activities Report? It's basically a
10 report and it's really to align a number of things.
11 Number one, it aligns the NRC resources, knowing what
12 the future is at the site so we can align our
13 resources to meet the inspection requirements and
14 licensing requirements. The PSDAR should contain a
15 description of the planned decommissioning activities.
16 It will have a high-level schedule of planned
17 decommissioning activities. It is required to have a
18 site-specific decommissioning estimate, and also a
19 review of the environmental impacts of the
20 decommissioning. Basically, that is generally a
21 reaffirmation of the environmental assessment that's
22 been done on the plant that allowed it to operate.
23 So, most of those things don't change after the plant
24 is shut down, but there could be some new information
25 that would be included.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 So, the PSDAR review process, we noticed
2 it in the Federal Register, and we request public
3 comments. So, it's been there since 2020 and has been
4 available for people to make comments through the
5 Federal Register. It also schedules a public meeting,
6 which is us, and we're here tonight to discuss the
7 PSDAR and obtain your comments. We have a number of
8 documents which provide some guidance on the content
9 of the PSDAR and the decommissioning process, and so
10 just a couple of regulatory guides. You could find
11 those on our public website in Regulatory Guide 1.184
12 and Regulatory Guide 1.185 which specifically spells
13 out the information we would like to have in the
14 PSDAR.

15 Keep in mind, the PSDAR is not a Federal
16 action. It is merely a report from the licensee
17 telling us their plans and giving us the opportunity
18 to see where the decommissioning fund is and what
19 their schedule is in making sure the environment stays
20 safe.

21 So, like I said, the site permanently
22 ceased operation in August 2020. They are preparing
23 the plant for SAFSTOR and the transfer of the spent
24 fuel to dry storage by 2023, probably maybe a little
25 bit longer than that, 2024. It's really up to their

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 schedule. With all the plants shutting down, there's
2 been some supply problems getting casks and other
3 things. But the fuel will have been in storage long
4 enough and will meet all the heat transfer
5 requirements for that to happen. As a matter of fact,
6 I think they're probably qualified now to do that.

7 So, we're expecting by the DOE schedule,
8 that all the spent fuel will go to DOE by 2059.
9 That's not the NRC's proclamation but the Department
10 of Energy's. So, they expect a complete radiological
11 decommissioning by 2080, which is a 60-year window.
12 So, the site will remain in SAFSTOR.

13 So, in the PSDAR, they've put in the 2019
14 cost estimate, and they estimated the balance to be
15 \$568 million, and that was in 2018 dollars. They
16 estimated at that time the cost to complete the
17 radiological decommissioning would be around \$724
18 million. In their annual report, because they're
19 required to submit an annual report, now that they're
20 shut down, to us each year, in March of each year
21 reporting on the previous year's status of the
22 decommissioning fund, so in March of 2021, they
23 reported that the 2020 decommissioning trust fund
24 balance was about \$633 million. They then estimated
25 the cost to complete the radiological decommissioning

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 at \$747 million, and that was at that time. So,
2 there's some room for the trust fund to grow and
3 they've got plenty of time for the horizon to meet
4 that funding.

5 So, like I said before, one of the key
6 things I want to bring out is that the NRC oversight
7 continues until the license is terminated. We will
8 continue with licensing activities at the site to
9 ensure the safety requirements are maintained. The
10 NRC, mainly out of our Region III Office, will
11 continue inspections of the facilities commensurate
12 with the safety risks and activities.

13 So, as Rhex said, in plain language, if it
14 were in SAFSTOR and there's nothing happening at the
15 plant, we will be here at least once a year to look at
16 some basic safety requirements that the plant is being
17 maintained in a safe condition. If activities start
18 up where they're starting to do some dismantling work,
19 then we'll be here to observe that work and work
20 closely with the licensee to make sure it's done
21 safely and compliantly with the regulations. Next
22 slide.

23 For the PSDAR review, we do a technical
24 review of the decommissioning strategy and schedule.
25 We have a special group of financial people who do the

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 analysis of the decommissioning trust fund and the
2 spent fuel trust funds if they're separate, they could
3 be in one fund. But they do an analysis of the trust
4 funds to make sure there's a reasonable assurance that
5 there's adequate funds to do the decommissioning.
6 Also, we do an environmental review to ensure that the
7 plant decommissioning strategies will be bounded by
8 the existing environmental reports. If not, then
9 those will be supplemented. Next slide.

10 So, how do you provide comments on the
11 PSDAR? Well, you can provide them to us in this
12 public meeting. As I said, Mr. LeGrand over here is
13 recording the meeting for the transcript, so we'll get
14 your comments that way. We are holding a webinar on
15 October 6th, from 5:00 to 7:00 p.m.

16 You can submit your comments by mail, and
17 that's to our Office of Administration and it's a
18 really simple mail stop, TWFN-7-A60M. Of course,
19 there is the NRC address, you can just send it to
20 Program Management Announcements. Then you could
21 always go to the Federal Rulemaking website,
22 regulations.gov, and all you've got to do is search
23 the docket which is NRC-2020-0148, and you can provide
24 comments that way by uploading them into the Federal
25 Register notice -- Federal Rulemaking website, sorry.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 Your comments are due to us by December
2 20th. Now we've had to extend the comment period
3 because we couldn't hold a public meeting for a long
4 time. But in recognition of that, you still have a
5 couple more months to get the comments in to us.

6 If we find the, at our final review of the
7 PSDAR, we find it acceptable and meets our context
8 requirements and information, then we'll just be
9 notifying the licensee that we thank them for
10 submitting their PSDAR report. Like I said, it is not
11 a Federal action, it is not a license amendment, it's
12 not an exemption where, you know, there's opportunity
13 for a hearing and other things that could go on with
14 a Federal action.

15 So, with that, I wanted to thank you for
16 being here. I know, you know, it's sometimes tough to
17 get away and come out to public meetings, especially
18 in the evenings. But we're here to listen to your
19 comments. As I said, the meeting is being
20 transcribed, it will be publicly available. We'll
21 also publish a meeting summary, and we'll do our best
22 to answer any questions you have. I don't guarantee
23 we can answer all the questions, but we try to answer
24 them with reasonably good information. Generally, if
25 it's a general question, we can generally answer it,

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 but we can't always answer all questions.

2 So, with that, I'd like to ask if there's
3 any elected officials who would like to make any
4 comments?

5 (No response.)

6 MR. WATSON: So, we don't have anybody?
7 State Senate or Federal, whatever, representatives?

8 (No response.)

9 MR. WATSON: Okay, do we have any
10 government officials that would like to make any
11 statements?

12 (No response.)

13 MR. WATSON: No? No state or locals?

14 (No response.)

15 MR. WATSON: Okay, and do we have any
16 Native American tribes represented tonight that would
17 like to make a statement?

18 (No response.)

19 MR. WATSON: Okay, so let's go to public
20 comments.

21 Kim, do you have the list? Did anybody
22 sign up to make any comments, Or you can just raise
23 your hand, it's not a big crowd.

24 MR. EDWARDS: Maybe we should do an audio
25 check, Bruce.

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS
1716 14th STREET, N.W., SUITE 200
WASHINGTON, D.C. 20009-4309

1 Can everybody hear us okay? Just
2 checking.

3 MR. WATSON: I mean, we accept throw
4 comments, too, but you know, we rarely get them.

5 Yes, I'll just say that the most recent
6 meeting, public meeting we had was up at, and you
7 don't need to record this, but it was up at Indian
8 Point. We had, oh, about 60 people in the audience,
9 and we previously had what we call a government-to-
10 government meeting. We had about 60 or 70 people
11 there, too. So, the evening meeting went about 3.5
12 hours. We limited people to two to three minutes for
13 their comments. So, we have plenty of time tonight if
14 anybody has a prepared speech or something.

15 We can't drag anybody off the street
16 either.

17 Well, you know, the NRC staff is required
18 to be here, I'm going to say at least another hour or
19 so. So, with that, we'll just close down the mics and
20 we can just chat with people if you wish if you have
21 no specific comments to make on the PSDAR.

22 So, all right. So, we'll just leave it
23 there for now.

24 (Off the record.)

25 MR. WATSON: Well, in conclusion, I'd like

1 to thank everybody for coming. Appreciate you coming
2 out tonight and participating at the meeting. We're
3 going to take into consideration all your comments,
4 and those will be incorporated into our meeting
5 summary for this meeting.

6 Again, I'd like to remind you that we're
7 having the virtual meeting on October 6th, and we hope
8 you will be able to, people that were unable to attend
9 will be able to attend that. Thank you very much.
10 Have a good night, bye-bye.

11 (Whereupon, at 7:11 p.m., the above-
12 mentioned public meeting was concluded.)
13
14
15
16
17
18
19
20
21
22
23
24
25