

1 **NUCLEAR DECOMMISSIONING CITIZENS ADVISORY PANEL**
2 **Wednesday, May 24, 2017**
3 **Plymouth South High School, Cafetorium, Pilgrim, MA**
4 **Meeting Minutes**

5
6 Meeting called to order at 6:00 p.m. by acting NDCAP Chair Angela M. O'Connor.
7

8 **NDCAP Members Present:**

- 9 • Angela M. O'Connor, Commissioner of the Department of Public Utilities
- 10 • Michael Gorski, Department of Environmental Protection (designee of Matthew Beaton, Secretary of the Executive Office of Energy and Environmental Affairs)
- 11 • John Giarrusso, MEMA (designee of Kurt Schwartz, MEMA)
- 12 • H. Joseph Coughlin, Member of Plymouth Nuclear Matters Committee
- 13 • Jack Priest, Member of Department of Health Radiological Control Program
- 14 • Pat Ciaramella, Representative of Old Colony Planning Council
- 15 • John T. Mahoney, Representative of the Town of Plymouth
- 16 • Heather Lightner, Representative of the Town of Plymouth
- 17 • John G. Flores, Appointee of Governor Baker
- 18 • Kevin O'Reilly, Speaker of the House Appointee
- 19 • Pine DuBois, Speaker of the House Appointee
- 20 • Richard Grassie, Minority Leader of the House Appointee
- 21 • Hon. Daniel Wolf, President of the Senate Appointee
- 22 • Jessica Casey, President of the Senate Appointee
- 23 • David C. Nichols, Appointee of Governor Baker
- 24 • Sean Mullin, Minority Leader of the Senate Appointee
- 25 • Michael Twomey, Representative of Pilgrim Nuclear Power Station
- 26 • John Ohrenbeger, Representative of Pilgrim Nuclear Power Station
- 27 • Richard Sherman, Representative of UWUA Local 369

28
29 **NDCAP Members Not Present:**

- 30 • Secretary Marylou Sudders, Secretary of Health and Human Services
- 31 • Undersecretary John Chapman, Executive Office of Housing and Economic Development

32
33 **OPENING REMARKS:**

34 Acting NDCAP Chair O'Connor reviewed the duties of NDCAP set forth in Section 14 of Chapter 188 of the Acts of 2016. Chair O'Connor requested that each member of the panel introduce themselves. The panel introduced themselves, providing their name and appointing authority.
36
37

38 **APPROVE MINUTES:** No prior minutes to approve.
39

40 **ENTERGY PLANT OVERVIEW AND UPDATE ON DECOMMISSIONING PLAN**

41 Joseph R. Lynch, Government/External Affairs Manager, Entergy, provided an overview of the status of the Pilgrim Nuclear Station. This was followed by a presentation of Entergy's Decommissioning Planning for the plant. Mr. Lynch explained that Entergy will be forming a Decommissioning Planning Organization and that it would create a Decommissioning website to house information on the decommissioning process. Mr. Lynch explained that a Post-Shutdown Decommissioning Activities Report (PSDAR) will be submitted to the Federal Nuclear Regulatory Commission ("NRC"). Mr. Lynch

1 then provided an overview of the three decommissioning strategies available to a nuclear plant licensee:
2 DECON, SAFSTOR and ENTOMB. Mr. Lynch provided an overview of the reductions in plant personnel
3 that will occur as the plant transitions from operational status to decommissioning/dry fuel
4 management. Mr. Lynch explained that Entergy alerted the NRC and publicly announced its intention to
5 cease operations in 2015, and that Entergy has projected a June 1, 2019 shut down date. Mr. Lynch
6 generally described Entergy's Irradiated Fuel Management Plan whereby the Company will move fuel
7 from wet storage to dry storage. Mr. Lynch stated that TLG Services would be performing the cost
8 estimate for the decommissioning of the plant and the cost of maintaining the spent fuel on the site.
9 Mr. Lynch stated that as of March 31, there is about \$1B in the Pilgrim Nuclear Decommissioning Trust.
10 Finally, Mr. Lynch stated that Entergy would continue to give updates at the NDCAP's quarterly
11 meetings, it will continue to do community outreach, it will work with local media, it can provide site
12 visits while still operating, and it will be setting up a decommissioning website.
13

14 **QUESTIONS AND COMMENTS FROM THE PANEL**

15 *Question from Sean Mullin to Joseph Lynch: Could Entergy provide information about the reports of*
16 *exploratory discussions to transfer its license to a third party? Answer: Mr. Lynch confirmed that in the*
17 *case of Pilgrim, Entergy has been approached by Accelerated Decommission Partners (a NorthStar and*
18 *Areva Joint Venture) to explore the possibility of a future project.*
19

20 *Question from Mr. Flores to Joseph Lynch: In light of past operating issues, how can Entergy guarantee*
21 *that everything presented by Mr. Lynch to NDCAP is going to happen? Answer: The NRC has deemed the*
22 *plant safe to operate. Entergy's focus is the safe decommissioning of the plant.*
23

24 *Question from Ms. Lightner to Joseph Lynch: Does the Company have a plan for where the second*
25 *storage pad will be located and would there be any possibility of Entergy working with the community to*
26 *locate it farther away from Cape Cod Bay? Answer: Entergy has not made a determination of where the*
27 *pad will be located and Entergy will reach out to the community as one of the stakeholders in that*
28 *process.*
29

30 *Question from Mr. Giarrusso to Mr. Lynch: From now until when the plant shuts down will Entergy*
31 *continue to have campaigns to place fuel from the spent fuel pool into dry cask storage?*

32 *Answer: Entergy is looking at both short and long term fuel management plans and as part of that it is*
33 *ensuring that it has ample space so that the casks on the pad are sufficient.*
34

35 *Question from Mr. Priest to Mr. Lynch: Please explain the difference between the current reactor*
36 *oversight process and the decommissioning inspection process after the cessation of operations. Answer:*
37 *Under the reactor oversight process the NRC looks at about 8 functional areas (e.g., emergency plan,*
38 *security, operational—specific things like the ability to operate continuously with events like SCRAMs),*
39 *many of which go away after shut down. The decommissioning inspection process focuses primarily on*
40 *those activities associated with fuel storage and radiological safety.*
41

42 *Question from Ms. DuBois to Mr. Lynch: How much of the \$54 million invested during the Refueling*
43 *Outage was associated with fuel? Answer: I believe the \$54M does not include the cost of fuel. Question*
44 *from Ms. DuBois: Is the projected shut-down date of June 1, 2019 a date certain? Answer: That is a "no*
45 *later date" that Entergy will not exceed. Question from Ms. DuBois regarding the NRC's Confirmatory*
46 *Action Letter. Answer: The NRC's Confirmatory Action Letter will outline the elements it wants Entergy to*
47 *complete after which the NRC will come in and evaluate the plant and determine whether it can*
48 *transition out of Column Four into Column One. Entergy's focus is on transitioning out of Column Four*

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1 and meeting all requirements of the Confirmatory Action Letter. Question from Ms. Dubois: So it's
2 Entergy's intention to operate in Column One until June 1, 2019? Answer: Entergy will operate in Column
3 Four and do everything it can to transition into Column One before June 1, 2019. Question from Ms.
4 Dubois: Can I ask that Entergy involve the community in its plans for spent fuel; and to further
5 acknowledge the considerable concern about the placement of wet fuel and ultimately dry casks in such
6 close proximity to Cape Cod Bay? Answer: The community will have the opportunity to make comments
7 on Entergy's submittal. The placement of the first pad complies with all regulations and Entergy expects
8 the same for the second pad.

9

10 Question from Mr. Mahoney to Mr. Lynch: The Pilgrim Nuclear Decommissioning Trust currently contains
11 about \$1B, how much does it cost to decommission the plant safely, and if you don't have that number
12 right now, when will you know what it is? Answer: Entergy does not have a firm number on the cost of
13 decommissioning, coming up with that figure will be Entergy's job over the next two years.

14

15 Question from Mr. Gorski to My. Lynch: The objective for the decommissioning of Yankee Rowe was to
16 return the site to unrestricted use status, is this the same objective for Pilgrim Nuclear plant? Answer:
17 Entergy has not determined the end state but we will follow all state regulations as well as the NRC
18 guidelines on the process.

19

20 Question from the Hon. Dan Wolf to Mr. Lynch: With respect to the decision of whether to do DECON or
21 SAFSTOR, what is the weighted criteria that goes into that decision? Answer: Entergy would not go
22 forward with DECON unless the company had enough money to see it through until the end. The amount
23 of money available in the Decommissioning Trust Fund informs that decision. Question from the Hon.
24 Dan Wolf: To be clear, there is no safety risk analysis involved in that decision making? It is purely a
25 financial analysis? Answer: Economics are taken into account in that decision. Question from the Hon.
26 Dan Wolf: Are the types of dry casks being used in storage transportable or non-transportable? Answer:
27 Entergy is using what is known as the Holtec 100 system and that is what is known as an intermodal
28 system; so you can remove the inner container, put it into a shielded transportation cask and ship it to an
29 alternate disposal site.

30

31 Comment from Mr. Twomey to Mr. Lynch: The NDCAP is a little different than other state-run panels in
32 that Entergy is a member of the panel. And given that the members are going to be together for a long
33 time, it would be constructive if we did not have ad hominem attacks on Entergy.

34

35 Question from Ms. Casey to Mr. Lynch: Would you explain to the panel how decommissioning breaks
36 down in terms of the cost of radiological versus non-radiological tasks and what aspects of
37 decommissioning the fund needs to cover? Answer: Decommissioning is divided into three tasks: (1)
38 license termination [removal of physical structures], (2) site restoration, which is more focused on non-
39 radiological restoration, and (3) spent fuel containment, the cost of which will ultimately be recovered
40 through the Department of Energy. Question from Ms. Casey: And how do the decommissioning costs
41 break out into those three tasks? Answer: Using VT Yankee as an example, license termination was
42 \$817M, site restoration was \$57M, and spent fuel management was \$368M. Comment from Ms. Casey:
43 At a future meeting it would be good for Entergy to give a sense of the loss of jobs and community
44 involvement that will be associated with the plant shutting down.

45

46 Question from Mr. Grassie to Mr. Lynch: With respect to plant staff transitioning to decommissioning,
47 and using VT Yankee as an example, is it correct that there are 550 personnel at VT Yankee versus 620 at
48 Pilgrim. Answer: When Entergy was operating Vermont Yankee, it had about 600 people and it lost a

1 number of employees in the transition to plant shut-down. Question from Mr. Grassie: Entergy is
2 currently considering a NorthStar acquisition at Vermont Yankee, is it for the reactor license only?
3 Answer: It would be for the transfer of the operator license and license to possess/oversee dry fuel
4 storage. Question from Mr. Grassie: How would NorthStar assuming those licenses impact the staffing
5 composition (i.e., how many employees would be NorthStar employees versus Entergy employees and
6 what is the economic impact of potentially losing local employees in Plymouth)? Answer: Entergy can't
7 speculate on what will happen at Pilgrim, but at Vermont Yankee, one of the elements of the plan was
8 for Entergy to first transition its security force to a private security company (Securitas). There will be a
9 small number of VT Yankee employees that will transition to NorthStar employees if they so desire.
10 Question from Mr. Grassie: You stated that Entergy would provide a PSDAR much sooner than 2 years
11 after plan shutdown, can we depend on that? Answer: At VT Yankee, Entergy submitted a PSDAR before
12 shut-down, and Entergy has every confidence that it will be the same for Pilgrim.

13
14 Question from Mr. O'Reilly to Mr. Lynch: Do the exploratory discussions with Accelerated Decommission
15 Partners include any land outside the plant fence? Answer: Not aware of whether those discussions
16 include the land.

17
18 Question from Mr. Coughlin to Mr. Lynch: In light of the inactivity at the federal level to create a
19 repository for spent fuel storage, what is your experience with regard to the ability of companies like
20 NorthStar to find temporary fuel storage and do they have the ability/expertise to transfer spent fuel
21 from a temporary storage location to a permanent location once that become available? Answer: There
22 is the possibility that there could be a more permanent federal storage location sooner and Entergy is
23 following that very closely. NorthStar would have the capability to both oversee the fuel and to
24 eventually address its ultimate disposal.

25 26 **COMMENTS FROM THE PUBLIC**

27 Elaine Dickinson, Member Cape Downwinders: Public safety is our shared concern. We ask that Entergy
28 and the NRC consider the location of the dangerous spent fuel pool and that the NDCAP consider this a
29 top priority.

30
31 Susan Carpenter, Member of Cape Downwinders: Would like to know if the cost of decommissioning
32 includes the waivers that Entergy is pursuing. Answer by NDCAP member Mr. Twomey: Those waivers
33 are routinely requested and frequently granted by the NRC.

34
35 Margaret Rice Moir: The NRC has been ineffective in responding to public criticism of the Pilgrim plant.
36 On behalf of the health and safety of the Commonwealth, we have fought on many fronts: creative,
37 traditional, legal, and through civil disobedience. We now have a decommissioning panel which has also
38 been fought for. I ask that the members of the panel consider the question: who are you here for?

39
40 Mary Lampert, Town of Duxbury Nuclear Advisory Committee: Request that NDCAP advise that the spent
41 fuel casks be moved to higher ground, put in place mitigation measures for security, encourage the state
42 to adopt a more conservative clean-up standard than the federal government, retain off-site emergency
43 planning funded by the licensee, support the current bill requiring outside emergency planning and
44 prohibit the use of nuclear decommissioning trust funds for that purpose. We would like the Department
45 of Public Health to be able to continue and expand offsite radiological monitoring, we advise that NDCAP
46 supports HB 33, we advise that NDCAP ask the Governor to support SB 1837, NDCAP should advise that
47 the nuclear decommissioning trust fund be used for decommissioning only, we recommend that NDCAP
48 make it more convenient for the public and town officials to interact with and submit information to

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1 NDCAP members, and last, we recommend that NDCAP amend the current legislation to create funding
2 for NDCAP's work.

3
4 *Jim Lampert, Town of Duxbury Nuclear Advisory Committee: Are there any circumstances under which
5 Pilgrim will not close by June 1, 2019? Answer by NDCAP member Mr. Twomey: I am not aware of any
6 circumstance under which the plant would operate beyond May 31, 2019. Jim Lampert: There was a case
7 in upstate New York where the plan operated beyond its projected closing date. Answer by NDCAP
8 member Mr. Twomey: Pilgrim presents a different situation because of the commitment that has to be
9 made to the ISO-NE forward capacity market. Jim Lampert: Tonight we heard that Entergy has not
10 decided whether it will use SAFSTOR yet, but in the past we have been told that Entergy will use
11 SAFSTOR. Has it been decided yet? Answer by NDCAP member Mr. Twomey: The only time the company
12 will declare the decommissioning method is in the PSDAR, which is likely to be filed around the time of
13 the shutdown. Jim Lampert: And that will be prepared by TLG, a wholly-owned subsidiary of Entergy?
14 Answer by NDCAP Member Mr. Twomey: A component of the PSDAR is the decommissioning cost
15 estimate that will be developed by TLG which is a subsidiary of Entergy. Jim Lampert: The number to
16 decommission Pilgrim nine years ago was \$914M. The cost estimate to decommission VT Yankee
17 increased about 50%, and industry studies show that these costs could increase as much as 60%.
18 Applying this to the \$914M amount in the nuclear decommissioning trust is \$1.5B, or substantially more
19 than is in the fund. Finally, it would be extremely helpful to us if this panel had a website on which all
20 documents and the e-mail addresses of the NDCAP members are posted.*

21
22 *Sandra Hammond, Plymouth Resident: I am very concerned about the safety issues that this dangerous
23 facility poses to my family and to the community.*

24
25 *Diana Price, Plymouth Resident: Is the Holtec intermodal system that was referenced earlier actually
26 used anywhere? Answer from NDCAP Member Giarrusso: It is used by the U.S. Navy.*

27
28 *Djamil Graham, Boston Resident: Fukushima Daiichi currently has three plants in meltdown that have not
29 been addressed. On this continent we have the Hanford site where nuclear fuel is being stored and
30 leaking. A plant in Spain was closed for four years and they are trying to reopen it with much
31 consternation in the community. The NRC has shown total disregard for nuclear decontamination.*

32
33 *Henrietta Costino: We are a traumatized community as we are now and for the foreseeable future a
34 nuclear waste dump. It is important for the NDCAP to consider both the location of the dry cask storage
35 and that dry casks degrade in 30 years or less.*

36
37 *Sheila Lynch: I am concerned that the nuclear decommissioning trust fund is underfunded and that
38 Entergy could put off decontaminating the site due to a lack of funding. Pilgrim is different than other
39 sites (e.g., VT Yankee, Yankee Rowe) because it is in an international flight zone, because of the
40 population in the area, and because of the cultural resources in the area. Chernobyl has a 30 mile radius
41 that cannot be entered by humans for 20,000 years. That should be considered in the cost/benefit
42 decommissioning analysis.*

43
44 *Comment by panel member Mr. Towmey: To clarify, DECON and SAFTOR are two different versions of the
45 same thing. DECON is prompt decommissioning. SAFSTOR is deferred decommissioning. The NRC
46 requires that SAFSTOR be completed within a maximum of 60 years but it could be shorter. The selection
47 of the decommissioning method, DECON or SAFSTOR, has no impact on the plant shutdown date.*

48

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1 *Bruce Taub: By statute, the NDCAP can act in an advisory capacity only. Request that all meetings be*
2 *publicized, open, and recorded. I hope the NDCAP members and the public will be educated in this*
3 *process.*

4
5 *Ken Tavares, Chair, Plymouth Board of Selectmen: We appreciate all of you working on this panel and*
6 *when we made our appointments we focused on diversity. Ask the tough questions. This is a very*
7 *complex process. Your work is going to set the table for what happens at the Federal level.*

8

9 **WRAP UP AND ADJOURN:**

10

11 Sean Mullin, made a motion that the NDCAP meet more than the quarterly meetings set forth in
12 Chapter 188 of the Acts of 2016. Pat Ciaramella seconded the motion. Chair O'Connor tabled that
13 motion until the next NDCAP meeting to allow for discussion by the panel and its elected chair to
14 consider logistical issues this may pose.

15

16 Comment from Sean Mullin: The Section 14 of Chapter 188 of the Acts of 2016 provides that NDCAP
17 annually shall elect a chair or co-chairs, and a vice chair, commencing with its first meeting. Comment
18 from Chair O'Connor: The panel should table that election and formally take it up at a future meeting.

19

20 Meeting adjourned at approximately 8:10 p.m.

21

22 **DOCUMENTS USED AT MEETING:**

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- PowerPoint Presentation by Entergy – “Pilgrim Nuclear Power Station Plant Status and Decommissioning Plant Update”