

1                   **NUCLEAR DECOMMISSIONING CITIZENS ADVISORY PANEL (“NDCAP”)**

2                                   **Wednesday, January 16, 2019**

3                   **Plymouth Community Intermediate School (“PCIS”), Little Theatre, 117 Long Pond Road,**

4                                   **Plymouth, MA**

5                                   **Meeting Minutes**

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7 Meeting called to order at 6:30 p.m. by NDCAP Chair Sean Mullin.

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9 **NDCAP MEMBERS PRESENT:**

- 10                   • Pat Ciaramella, Representative of Old Colony Planning Council
- 11                   • H. Joseph Coughlin, Member from Plymouth Nuclear Matters Committee
- 12                   • Pine duBois, Speaker of the House Appointee
- 13                   • John G. Flores, Appointee of Governor Baker
- 14                   • John Giarusso, Massachusetts Emergency Management Agency
- 15                   • Jacqueline Horigan, Executive Office of Housing and Economic Development
- 16                   • David Johnston<sup>1</sup>, Department of Environmental Protection
- 17                   • Joseph Lynch, Representative of Pilgrim Nuclear Power Station
- 18                   • John T. Mahoney, Representative of the Town of Plymouth
- 19                   • Sean Mullin, Minority Leader of the Senate Appointee (Chair)
- 20                   • David C. Nichols, Governor Baker Appointee
- 21                   • John Ohrenberger, Representative of Pilgrim Nuclear Power Station
- 22                   • Kevin O’Reilly, Speaker of the House Appointee (Vice-Chair)
- 23                   • Jack Priest, Department of Public Health, Radiological Control Program
- 24                   • Richard Rothstein, Representative of the Town of Plymouth
- 25                   • Rick Sherman, Representative of UWUA Local 369
- 26                   • Senator Dan Wolf, President of the Senate Appointee

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28 **NDCAP MEMBERS NOT PRESENT:**

- 29                   • Jessica Casey, President of the Senate Appointee
- 30                   • John Chapman, Executive Office of Housing and Economic Development
- 31                   • Richard Grassie, Minority Leader of the House Appointee
- 32                   • Robert Hayden<sup>2</sup>, Department of Public Utilities
- 33                   • Robert Jones<sup>3</sup>, Executive Office of Health and Human Services
- 34                   • Kurt Schwartz, Massachusetts Emergency Management Agency

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36 **INTRODUCTION:**

37 Chair Mullin noted that not all members of the Panel received the November minutes, proposed  
38 deferring the discussion of them until the next meeting, and called for a motion to do so, which passed  
39 by unanimous vote of the members present.

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41 Chair Mullin stated that Pilgrim would cease operating in 135 days and noted that the focus of the  
42 upcoming meetings should be to hear updates from Holtec and Entergy with regard to the Panel’s  
43 recommendations. Examples of topics includes the millirem reduction from 25 to 10. Mr. Lynch stated

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<sup>1</sup> Designee of Secretary Beaton (EEA)

<sup>2</sup> Designee of Angela O’Connor (DPU)

<sup>3</sup> Designee of Secretary Sudders (Executive Office of Health and Human Services)

1 that Entergy would be able to do this. Mr. Coughlin supported Chair Mullin's proposal. Ms. duBois  
2 noted that the Panel has not received updates on all topics that it has requested updates on, including  
3 the historic site assessment. Chair Mullin also noted that the Panel should consider its 2019 annual  
4 report as a topic.

5  
6 Chair Mullin stated that the Town of Plymouth has been actively speaking with interested parties in the  
7 Pilgrim decommissioning, stated that he has spoken with the Attorney General's Office, and noted that  
8 the AG intends to intervene in the license transfer proceeding. He also stated that the AG is working  
9 with the interagency working group to obtain best possible terms for the state. He noted that the  
10 interagency working group is interested in learning about the Panel's recommendations that were not  
11 included in the annual report. He noted that the southeast MA congressional delegation is on board to  
12 advance legislation, and explained that the Panel can help the AG and the interagency working group  
13 develop their priorities.

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15 Mr. Mahoney pointed out that three additional members of the Board of Selectmen were in the  
16 audience and explained that the Board approved a two-year pilot extension with Entergy totaling  
17 \$13.5M in payments to Plymouth. Mr. Coughlin asked whether Holtec would honor this agreement  
18 post-sale, to which Mr. Mahoney responded that was his understanding. Senator Wolf asked whether  
19 the pilot payments would be withdrawn from the trust fund. Mr. Lynch responded that he would look  
20 into this. Mr. Nichols stated that the Panel should also hear concerns from other communities near the  
21 plant in addition to Plymouth.

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23 Chair Mullin stated that all parties, including elected officials, are on the same page, and that all parties  
24 need to speak with one voice in communications with Entergy and Holtec.

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26 **NRC PRESENTATION ON REGULATORY PROCESS DURING LICENSE TRANSFER:**

27 Chair Mullin introduced presenters Bruce Watson, chief of the reactor decommissioning branch, and  
28 Amy Snyder, project manager for Pilgrim, from the NRC. Mr. Watson stated that Ray Powell, Will Smith  
29 and Bo Pham from the NRC were also present.

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31 Mr. Watson stated that he would discuss the Pilgrim PSDAR and license transfer process. He noted that  
32 the decommissioning regulations have been in place for 21 years, and they have decommissioned 10  
33 nuclear plants for unrestricted use. He noted that the remaining dry fuel storage at these plants is the  
34 responsibility of the federal government.

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36 Next, he explained the steps involved in decommissioning, and described the two approaches to  
37 decommissioning, which include SAFSTOR and DECON. SAFSTOR is a mothball state for a plant after all  
38 nuclear radiological materials are removed, but the structures remain standing. DECON is an active  
39 decommissioning state. He stated that currently there are 15 plants in SAFSTOR and 6 in DECON  
40 nationwide.

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42 Next he stated that NRC received the Pilgrim license transfer application on November 16, 2018, and  
43 both Holtec and Entergy submitted applications separately. He noted that Holtec proposed DECON and  
44 Entergy proposed SAFSTOR. The Holtec application is contingent on the license transfer and sale.

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46 He stated that license transfers are common in the industry but that sales are more rare. Recently, the  
47 NRC approved the sale of Vermont Yankee, and the sale was completed this month. He noted that the  
48 NRC looks at financial qualifications of the proposed buyer. If approved, the NRC will issue an order and

1 a conforming amendment after the sale is closed. He stated that license transfer reviews typically take  
2 one year.

3  
4 Next he described the PSDAR, which includes plans for post-shutdown activities, a schedule for those  
5 activities, and an environmental assessment. He explained that the PSDAR review process and noted  
6 that there are content requirements. He stated that it serves as a resource for the NRC's oversight, and  
7 informs the public of the activities. He stated that it is a report, and that it is not approved by the NRC.  
8 The NRC will send a request for additional information if a PSDAR is incomplete. He explained that the  
9 NRC is required to host a public meeting, and that Pilgrim's had taken place the previous night.  
10 Comments on the Entergy PSDAR are due on March 21, 2019. The license transfer application will have  
11 a 30-day comment period. The NRC will publish a summary of the comments received.

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13 **NDCAP MEMBER QUESTION AND ANSWER:**

14 Mr. Priest asked about the timeline for the PSDAR, specifically when the 12-month clock started. Ms.  
15 Snyder replied that the clock started on December 17, 2018, when the NRC sent a letter stating that the  
16 NRC received the document for review, and that review is expected to be complete in December 2019.  
17 Mr. Priest asked how much time elapsed between the LTA review and conforming letter during the  
18 Vermont Yankee License transfer proceeding. Mr. Watson replied that it took roughly 18 months  
19 because of financial issues with the application. Ms. Snyder noted that the NRC estimated that it needs  
20 12 months to review the license transfer application but stated that the NRC will try to complete it in 7  
21 months.

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23 Vice Chair O'Reilly asked what types of financial obligations the NRC looks for in its review. Mr. Watson  
24 replied that the review includes the amount of money in the fund and the spent fuel management plan  
25 and a determination that the funds are adequate to complete decommissioning. The NRC is also looking  
26 at Holtec's capabilities to be a licensee. Mr. Watson noted that this is a new company, and that the  
27 review includes a review of a new licensee to take over a license.

28  
29 Chair Mullin noted that Holtec has created an LLC with no assets other than the decommissioning fund,  
30 and stated that the Panel would provide Mr. Watson with written questions. Chair Mullin explained that  
31 Entergy and Holtec will not disclose the warranty period of the casks. Chair Mullin explained that the  
32 casks could develop problems, and may lack the funds to repair damaged casks. Mr. Watson explained  
33 that any costs associated with the casks are the responsibility of the licensee. He also explained that the  
34 NRC will monitor the spent fuel management plan and cost estimate.

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36 Senator Wolf noted that the NRC sees a connection between financial qualifications and safety. He  
37 noted that financial experts believe that the fund may be insufficient to complete decommissioning. Mr.  
38 Watson responded that the licensee is responsible for ensuring the safety of the fuel. Senator Wolf  
39 asked why the NRC would not choose a licensee with more assets. Mr. Watson responded that the NRC  
40 reviews the application before it. He noted that the NRC continuously monitors a licensee's  
41 expenditures. Ms. Snyder explained that the NRC has authority to monitor the decommissioning cost  
42 estimate and to direct a licensee to add money from the trust fund if the fund is inadequate.

43  
44 Mr. Priest noted that the NRC monitors the spend down rate annually, and asked what would happen if  
45 there is a gap in the spend down rate showing that the fund will run out of money prior to the  
46 completion of decommissioning. Mr. Watson replied that the NRC could issue an order to add money to  
47 the fund or take action to ensure that funds remain adequate to complete decommissioning on  
48 schedule.

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Chair Mullin noted that there is no income coming during decommissioning other than interest on the fund. Mr. Watson responded that the licensee would have a parent company, could use bonds, and will have funds coming through DOE litigation. Chair Mullin also asked how much money is transferred between the seller and buyer, noting that Plymouth would like to receive the land at Pilgrim as a gift from Holtec. Ms. Snyder responded that the NRC makes information available to the public, but that some is confidential and not publicly available. Mr. Watson noted that the NRC is not part of the sale, only the license transfer.

Senator Wolf asked what the NRC considers to be a reasonable profit, and noted that there is a need for transparency. He stated that the Panel deserves to know what the profit is and whether there is a cap on how much profit Holtec could make, because those funds should be returned to the ratepayers who paid into the fund. Mr. Watson responded that the NRC does not regulate commerce in the state, and that the state should be asking those questions about the sale.

Mr. Rothstein asked whether the NRC has different regulations for DECON versus SAFSTOR. Mr. Watson responded that the radiation protection programs are the same for both, but that licensees are expected to follow the ALARA (as low as reasonably achievable) principle. Mr. Rothstein also asked about radiation levels during DECON, and what were the implications by a reduction in the EPZ. Mr. Watson responded that a licensee is required to request an exemption for a reduction in the EPZ based on risk. He explained that the NRC reviews plans to ensure that they are compliant with NRC regulations and have a rigorous environmental protection program that keeps doses within safety limits.

Mr. Nichols asked how the inspection schedule will change during decommissioning. Mr. Watson responded that one resident inspector will be onsite for about 6 months during defueling. After defueling, inspectors are onsite frequently, particularly during higher risk activities. He noted that inspections ramp up again toward the end of decommissioning, when a licensee is nearing license termination. He noted that inspections may be monthly or quarterly during more routine aspects of decommissioning.

Mr. Mahoney asked which site has been in SAFSTOR the longest. Mr. Watson responded that Millstone 1 has been in SAFSTOR for about 20 years, and that it is within the security footprint of the operating Millstone reactors. Mr. Watson explained that Millstone has not decommissioned because it may be more efficient to decommission it after the operating reactors cease operations.

Mr. Coughlin asked whether the NRC reviews the proposed location of the new ISFSI and how the dry casks will be moved there. Mr. Watson responded that the NRC will inspect the new ISFSI to ensure that it, along with the new roads needed to transport the casks, are constructed to standards. Mr. Coughlin also asked whether the new NRC regulations would have an impact on the Pilgrim decommissioning. Mr. Watson responded that the change from handling an EPZ change request from an exemption to a regulation may be implicated. Mr. Coughlin noted the possible elimination of exemption requests to increase efficiency, and asked how public safety would be lessened by those changes. Mr. Watson responded that the inspection process would ensure public safety.

Ms. duBois noted that the NRC does not seem to take into account sea level rise in its assessment of possible effects at Pilgrim, and explained that sea level rise should be taken into considered in evaluating the Pilgrim PSDARs. Mr. Watson responded that the NEPA process deals with impacts associated with plant operations and the decommissioning, but do not address the longer term issue of

1 rising sea levels. Bo Pham of the NRC noted that the EIS process documents the impact of the plant on  
2 the environment, and not the impact of the environment on the plant. He also explained that the NRC  
3 issued orders after Fukushima for each licensee to report on the hazards at each plant. Ms. duBois  
4 responded that the NRC should focus more on the future of the site because of the Pilgrim site's  
5 vulnerability to sea level rise.

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7 Mr. Flores noted that Cape Cod is within a 50-mile radius of Pilgrim. He also noted that Entergy's  
8 estimate for the cost to decommission Pilgrim through SAFSTOR and Holtec's estimate for DECON are in  
9 excess of the funds available in the decommissioning fund, and asked how the shortfall would be made  
10 up. Mr. Watson responded that the estimates are likely to take into account future escalation  
11 estimates. He explained that the NRC would review the estimates closely. He also noted that there are  
12 separate funds for fuel management and site restoration. Mr. Flores also expressed concern with the  
13 Holtec LLC arrangement vis a vis liability. Mr. Watson responded that although LLCs can make it more  
14 difficult to obtain funds from a parent company through litigation, it is nevertheless possible.

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16 Mr. Nichols asked whether other LLCs are decommissioning nuclear plants elsewhere. Mr. Watson  
17 responded that he knows of two such examples, but in those cases the license was transferred for the  
18 purpose of decommissioning, but there was not a sale.

19  
20 Mr. Ciaramella asked whether the PSDARs include cost estimates for each phase of the closing, and  
21 asked if the NRC has best practice costs for those phases. Mr. Watson responded that decommissioning  
22 costs vary wildly based on a wide variety of factors. Ms. Snyder noted that there is documentation on  
23 decommissioning costs based on previous decommissionings that she could provide to the Panel.

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25 **PUBLIC QUESTION AND ANSWER:**

26 Jim Lampert noted that the Town of Duxbury has financial concerns about the decommissioning, and  
27 asked when the Panel would hear those concerns. He also noted that the new licensee's only assets will  
28 be the trust fund and the land at Pilgrim and explained that funds recovered from DOE do not go into  
29 the trust fund, but rather go back to Holtec. He also asked how interventions in the license transfer  
30 could affect the review schedule. Mr. Watson responded that an intervention could delay the process,  
31 but could not estimate how long the delay would be.

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33 Henrietta Consentino expressed concern about the NRC's lack of consideration of environmental effects,  
34 such as sea level rise, on the site. She also noted concerns with the safety of dry cask storage and  
35 Holtec's finances. She asked the NRC representatives what concerns they have taken away from their  
36 local meetings. Mr. Watson responded that he understands the concerns over Holtec's finances and  
37 qualifications and explained that the NRC has follow-up work to do on that subject. He also explained  
38 that the NRC will review the license transfer closely and explained that the NRC shares environmental  
39 concerns.

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41 Jim Lampert stated that he has concerns about the PSDAR cost estimate. First he noted that the cash  
42 flow represents a slim profit margin and may be based on inappropriate assumptions, and may include  
43 faulty inflation assumptions. He also expressed skepticism about Holtec's estimate for spent fuel  
44 removal and the cost assumptions associated with it. He also disagreed with classifications of the  
45 Pilgrim site as clean, and stated that certain environmental documents may omit critical information  
46 about contamination at Pilgrim. He stated that the public will be responsible for any cost overruns.

APPROVED AT 2/20/19 MEETING

1 David Agnew stated that there may not be enough money in the decommissioning fund to complete  
2 decommissioning, and asked if the NRC could guarantee that the public will not have to pay for any  
3 overruns. Mr. Watson responded that the licensee is responsible for providing any shortfall in funds in  
4 excess of those available in the trust fund. He explained that the legal system would also be used to  
5 obtain these funds, and he noted that the NRC reviews the licensee's finances on an annual basis.  
6

7 David Noyes, a long-time Pilgrim employee, thanked the NRC for providing decommissioning  
8 information. He noted that the licensee and NRC are responsible for seeing through the  
9 decommissioning. He stated that the NRC regulations have proven effective at decommissioning, and  
10 that it is therefore unnecessary and unreasonable to impose more stringent requirements, including  
11 increased radiological standards and donation of land, on the Pilgrim decommissioning. He stated that  
12 these additional measures do not represent responsible uses of the trust fund, and that any additional  
13 requirements should have sound scientific bases. Mr. Priest responded that the increased radiological  
14 standard of 10 millirem has a strong scientific basis.  
15

16 John Garley asked whether the steel used in the casks can crack in salt water, and asked what the plan is  
17 if a cask cracks. Mr. Watson responded that a certain type of steel used in casks is susceptible to stress  
18 corrosion cracking, that the NRC has issued notice of this, and that the NRC is reviewing the longevity of  
19 the casks. However, he noted that all casks in service are intact. He also stated that casks do not need  
20 to be underwater to be safe, and that they are safe in dry casks. He stated that the casks are safe, that a  
21 program is being put into place to monitor degradation of the steel containers in the casks, and that  
22 there are plans underway to make sure the casks can maintain their integrity if there is a problem. Mr.  
23 Pham noted that the notice gave possible degradation as an example of something that could happen to  
24 steel, but that it has not happened, but that degradation has been observed in the piping system but not  
25 in the casks.  
26

27 Diane Turco asked if the trust fund pays taxes. Mr. Watson responded that it does pay taxes as part of  
28 decommissioning. Ms. Turco stated that public and environmental safety are the most important  
29 priorities. She cited terrorism and sea level rise as issues that need to be addressed in decommissioning.  
30

31 **WRAP UP AND ADJOURN**

32 Chair Mullin thanked the NRC representatives for their time, and noted that he would follow up with  
33 written questions.  
34

35 Chair Mullin called for a motion to adjourn. It was so moved and seconded.  
36

37 ***Meeting adjourned at approximately 8:45 p.m.***