

1 **DRAFT Subject to Approval**

2 **Nuclear Decommissioning Citizen's Advisory Panel (NDCAP)**

3 **Thursday, June 23, 2016**

4 **Vernon Elementary School, Cafeteria Room, Vernon, VT**

5 **Meeting Minutes**

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7 NDCAP Members Present:

- 8 • Christopher Recchia, Commissioner of Public Service, ex officio
- 9 • Chris Campany, Executive Director of the Windham Regional Commission (WRC)
- 10 • Dr. William Irwin, Agency of Human Services- Department of Health
- 11 • George Desch, Deputy Commissioner, Department of Environmental Conservation
- 12 • Stephen Skibniowsky, representing the Town of Vernon
- 13 • Kate O'Connor (Brattleboro), Chair, citizen appointee of Governor Shumlin
- 14 • Martin Langeveld (Vernon), Vice-Chair, citizen appointee of Governor Shumlin
- 15 • Derrik Jordan (Putney), citizen appointee of Speaker of the House Shap Smith
- 16 • Jack Boyle, Decommissioning Director, Entergy Nuclear Vermont Yankee (VY)
- 17 • David Andrews, International Brotherhood of Electric Workers (IBEW); representing
- 18 present & former employees of Vermont Yankee
- 19 • James Tonkovich (of Wilder), citizen appointee of Senate President Pro Tempore John
- 20 Campbell
- 21 • David Deen, (Westminster), VT State Representative, citizen appointee of Speaker of the
- 22 House Shap Smith
- 23 • Diane Becker, Chief of Technological Hazards, New Hampshire Emergency Management
- 24 and Homeland Security

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26 The following NDCAP members were connected to the meeting via teleconference

- 27 • Patricia Moulton, Secretary of Agency Commerce and Community Development

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29 The following NDCAP members were absent from the meeting:

- 30 • Michael Hebert (Vernon), VT State Representative, member of the House Committee on
- 31 Natural Resources and Energy
- 32 • Paul W. Mark, MA State Representative, (Peru, MA), representing the Towns of
- 33 Bernardston, Colrain, Gill, Greenfield, Leyden, Northfield, and Warwick, Massachusetts
- 34 • Trey Martin, Deputy Secretary, Agency of Natural Resources
- 35 • VT State Senator Mark MacDonald, member of the Senate Committee on Natural
- 36 Resources and Energy
- 37 • Jim Matteau (Westminster), citizen appointee of Senate President Pro Tempore John
- 38 Campbell
- 39 • Mike McKenney, Technical Coordinator, Entergy Nuclear Vermont Yankee (VY)
- 40 •

1 The following members of the public were connected to the meeting via teleconference

- 2 • Aaron Kisicki, Attorney, VT Public Service Department
- 3 • Susan Smallheer, Reporter, Rutland Herald/Times Argus

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5 **MEETING CALLED TO ORDER AT 6:02 PM**

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7 **INTRODUCTIONS**

8 Panelists introduced themselves. Kate O'Connor introduced Elizabeth Acquaviva, the new  
9 meeting minute taker and announced presence and participation of guests representing  
10 Congressman Welch and Senator Sanders.

11

12 **APPROVE MINUTES:** *No prior minutes to approve.*

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14 **ENTERGY UPDATE ON DECOMMISSIONING ACTIVITIES**

15 *Joe Lynch, Government Affairs Manager, Entergy Vermont Yankee, gave an update on recent*  
16 *activities. (Complete presentation is available at [www.vydecommissioning.com](http://www.vydecommissioning.com) and*  
17 *[www.publicservice.vermont.gov](http://www.publicservice.vermont.gov).) Decommissioning preparation activities continue: System*  
18 *draining /lay-up continue. These are systems that were in place when the plant was operating,*  
19 *are no longer needed and are in final stages of shut down which has allowed minimization of*  
20 *needed power thus reducing overall cost. Expect all drained by the end of June, which is on*  
21 *schedule and budget. Joe gave an update on the continued ground water intrusion problem.*  
22 *The water has been coming in at 900 gallons per day. To date have shipped 193,000 gallons off*  
23 *site. Entergy has implemented a comprehensive water management plan to reduce ground*  
24 *water intrusion and has done so by approximately one third. He reported they hired industry*  
25 *consults to improve the reduction rate. Entergy is holding meetings with the Department of*  
26 *Health and Agency of Natural Resources to provide a status update weekly; answer any*  
27 *questions; and to look ahead and anticipate what the State needs.*

28

29 Most recent NRC quarterly inspection was conducted the week of 5/16/16. No issues or  
30 potential violations were identified. The NRC entered two decisions; 1) denied the State's  
31 appeal for a hearing request on the Permanently Defueled Emergency Plan (DPEP) which  
32 resulted in a license amendment and 2) denied State's petition for reconsideration of NRC's  
33 approval of exemptions. Joe reported the Emergency Area has shrunk.

34

35 On 6/16/16 Entergy learned the Public Service Board (PSB) issued the Certificate of Public Good  
36 (CPG) and the order approving installation of the second pad and back up emergency  
37 generator. Entergy will now be able to mobilize the transfer of spent nuclear fuel as scheduled  
38 for the next four years to dry casks and maintain the schedule of completion by 2020. Joe also  
39 provided an update on the Nuclear Decommissioning Trusts. Entergy is maintaining their  
40 commitment of \$25M to the Trusts overall and have provided \$15M so far. Entergy continues  
41 to engage with community communication and outreach.

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**STATE OF VERMONT UPDATE ON DECOMMISSIONING ACTIVITIES**

*Anthony Leshinskie, Vermont State Nuclear Engineer gave an update on recent activities. (Complete presentation is available at [www.publicservice.vermont.gov](http://www.publicservice.vermont.gov) or [www.vydecommissioning.com](http://www.vydecommissioning.com).)* Tony notified the Panel that as part of ongoing activities and appeals, the State filed a petition with the NRC regarding questions of the valid use of the decommissioning funds. Reply pending. The NRC denied the State’s appeal for a hearing to reduce the Emergency Plan Zone. The elimination of offsite Emergency Plan zone remains. The State will review the ruling for alternate action. Vermont Emergency Management and Homeland Security continue to rework the State Radiological Emergency Plan to address Energy’s Emergency Response position. On 6/1/16 the NRC vacated the prior ruling of the Atomic Safety Board to eliminated Entergy’s 30 day notice of withdrawing money from the Decommissioning Trust Fund. With other safeguards still in place there is no immediate impact on the State.

On 6/17/16 the VT Public Service Board awarded a Certificate of Public Good for the construction of the second dry cask storage pad. The State continues to monitor the NRC and Department of Energy (DOE) for matters relevant to VY. There is a pending webinar regarding lessons learned from the Fukushima disaster particularly concerning ground water. Tony will provide further notification once received if will be available. There have been joint briefings on the future industry efforts with the NRC Commissioners Briefing and Project AIM and others. New consideration is whether to mothball plant vs. decommission if the latter is not economically viable. Tony is active in the National Transportation Stakeholders Forum, a working group for rail/routing transportation of high level waste fuel. Sandia National Labs has a presentation on severe accident modeling of how to contain spent fuel pool fires. On 7/21/16 there is a webinar with Project Aim and the NRC on realigning resources.

Remotely Aaron Kisicki, attorney for the Public Service Department, gave a brief presentation on the most recent Circuit Court of Appeals decisions rejecting the States challenge of the Waste Confidence Rule. The Circuit Court of Appeals argued that the generic impact rule was sufficient.

**QUESTIONS AND COMMENTS FROM THE PANEL:**

*Question from Dr. William Irwin to Joe Lynch of Entergy: Explain installation of another generator. What is the use of the two previous ones? Answer: Original diesel generators are no longer in service. New “Station Black Out” generator is a requirement for emergency backup and will also be used as an upgraded generator for security systems and dry cask system.*

*Question from Chris Recchia to Joe Lynch of Entergy: Where are the other diesel generators? A lot of money was spent for their installation. Are we buying them through trust fund or getting any credit for them? Answer: They are on site to my knowledge and do not know current plans.*

1 *Question from Martin Langeveld to Joe Lynch of Entergy: What is prognosis for all that water*  
2 *remaining in sealed containers for a long time? Is there a time frame in which there will be a*  
3 *solution to this matter? Answer: Entergy has a comprehensive plan. The magnitude is high but*  
4 *the methods for storage are adequate. Entergy is looking at storage vs. shipping. There is no*  
5 *time frame to resolution at this time.*

6  
7 *Question from Derrik Jordan to Tony Leshinskie of the State: Explain option between mothball*  
8 *vs. decommission. Answer: Mothball means plant taken off line stored in a way for reuse of*  
9 *future electricity. This is a very preliminary stage of consideration. Other plan is for*  
10 *replacement of systems before use again and current market conditions would very likely be the*  
11 *reason to go this route.*

12  
13 *Question from Chris Campany to whoever may want to answer: Is there an option as to where*  
14 *the water sits? Can it stay where it naturally ends? Answer from Joe Lynch of Entergy: It is not*  
15 *an option at this time due to electrical equipment in the same location and the impact of the*  
16 *water sitting at that location for so long.*

17  
18 *Question from Chris Campany to Chris Recchia: In settlement agreement or MOU is there a*  
19 *clause that the State has first right of refusal to property that applies to anything other than*  
20 *land? Answer: Only land.*

21  
22 *David Deen to Joe Lynch of Entergy: Regarding the reference to Entergy's comprehensive water*  
23 *management plan, is it a published document? This Panel has never seen it to his knowledge.*  
24 *Answer: We have ongoing weekly discussions with the State about the status. No it is an*  
25 *internal engineering plan. I can do a future presentation if you would like.*

26  
27 *David Deen to Joe Lynch of Entergy: Does the comprehensive water management plan address*  
28 *water sources on the entire foot print of the plan or just leakage from a particular location?*  
29 *Answer: The plan only covers leakage in a specific location. The water does not come from one*  
30 *place, but a few and we continue to move with our processes to drain and analyze for solutions*  
31 *just as we have for other similar matters. This is new to us as we did not have this problem*  
32 *when the plant was running. The water seeping problem is byproduct of plant shut down.*

33  
34 *David Deen: I will request this to become agenda item when appropriate.*

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36 *Diane Becker to Joe Lynch of Entergy: Regarding the collection and shipping of the water, is all*  
37 *the water shipped, or is some of it still on site? Where is it being shipped? Answer:*  
38 *Approximately 20,000 gallons per week are shipped off site to Tennessee and South Carolina.*  
39 *This includes intrusion and process water.*

40  
41 *Kate O'Connor to Joe Lynch of Entergy: Is there an issue with water being shipped to Idaho?*  
42 *Answer: We are pending approval from the NRC to ship water to US Ecology, which I believe is*  
43 *in Idaho. This is mostly process water, which is more contaminated then ground water.*

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**CONGRESSIONAL UPDATE AND DISCUSSION:**

Haley Pero represents and works on outreach and environmental issues for Senator Sanders. She gave an update on what the delegation has been participating in the last six months; which much of the same concerns the Panel has; NRC rule making issues, increased public meetings, community involvement, decommissioning funds, spent fuel transportation, site restoration, storage options.

George Twigg also does outreach and environmental work for Congressman Welch. Cong. Welch is working on the many of the same matters; supporting the Nuclear Plan Act, enhancing public input, supporting Dry Cask Storage Act, Interim Consolidation Waste Storage Act, and still reviewing the newer item of decreasing property values and how hosting municipalities are affected.

**QUESTIONS AND COMMENTS FROM THE PANEL**

*Kate O'Connor added that on the last piece of legislation they are putting together a coalition with people of the Plymouth, MA plant.*

*Various Panel members thanked Haley and George for coming, acknowledged the great congressional representation we have and asked if there was anything we can do.*

*Martin Langeveld to Haley Pero: Is there any way to alleviate the taxation of the Decommissioning Trust Fund of 20% on earnings of fund, paid in by utility customers of Vermont and are really the owners of the fund? It is dragging the ability to grow the fund to become a sufficient size to cover the many years to decommission cost yet to come. Answer: This would be a tough nut to crack, but she will look into it.*

**OVERVIEW OF ENVIRONMENTAL AND HEALTH REGULATIONS IMPACTING VERMONT YANKEE:**

*(Complete presentation is available at [www.vydecommissioning.com](http://www.vydecommissioning.com) and [www.publicservice.vermont.gov](http://www.publicservice.vermont.gov).) George Desch, Deputy Commissioner, VT Department of Environmental Conservation, presented an overview of the State environmental regulations. Vermont has been authorized by the EPA to administer a Hazardous Waste program where hazardous waste is handled according to EPA standards from generation to disposal. This is dictated through the Resource Conservation and Recovery Act (RCRA), establishing the of management standards for generation, transportation and treatment of storage or disposal. Vermont does not have a treatment or disposal facility that is permitted for this. Under the Vermont Hazardous Waste Management Regulations Entergy is the generator of mixed waste (hazardous and radioactive), thus permitted to treat and dispose of it and is responsible for the cost of the treatment or disposal. This includes notification and collaboration of how low level radioactive waste mixed with hazardous waste. The discharge permit to allow for thermal discharge of noncontact cooling water going into Connecticut water still exists although plant is shut down. Detailed information regarding this and other permits can be found on the website.*

1 Entergy is developing plan to characterize and discharge intrusion water to existing storm water  
2 system vs. shipment of intrusion water to several states. We asked them to document and  
3 analyze the contaminants (eight of them) and include in management plan as well as include  
4 notification to public. George gave update on hazardous site cleanup. There are 4000 sites in  
5 VT running from gas tank spills to Entergy. Due to criteria requirements, there is no federal  
6 superfund dollars for cleaning up the hazardous waste generated by Entergy. Discussion  
7 ensued around site restoration including site characterization, investigation, risk evaluation,  
8 feasibility study, corrective action plan, instituted controls and monitoring.

9

10 *Dr. William Irwin from Vermont Department of Health presented on the DOH Radiological*  
11 *Health Rule. (Complete presentation is available at [www.vydecommissioning.com](http://www.vydecommissioning.com) and*  
12 *[www.publicservice.vermont.gov](http://www.publicservice.vermont.gov).) Dr. Irwin advised the Panel that the most current revision of*  
13 *this rule was made effective in 2010 and it applies to “all persons who receive, possess, use or*  
14 *transfer sources of ionizing radiation” in Vermont. The ruling provides standards for protection,*  
15 *requires registration, transport notice and the participation rights of DOH in these matters. Dr.*  
16 *Irwin presented in detail found on the slides the acceptable dosing criteria for specific*  
17 *exposures for persons in unrestricted areas were presented and reviewed. Dr. Irwin presented*  
18 *how the State independently determines compliance of dosing and exposure in unrestricted*  
19 *areas via environmental surveys, sampling and other measures to determine compliance.*

20

21 **PANEL QUESTIONS/COMENTS ON REGULATORY ISSUES:**

22 *David Andrews to Dr. Irwin: What are the federal limits of dosing? Answer: 100 millirem/year*  
23 *with exception of EPA guidance of 25 millirem/year. Determine compliance by dosimeters at site*  
24 *boundary at station that measure radiation and have other far from site and measure radiation*  
25 *there and have a formula to obtain exposure for compliance.*

26

27 *David Andrews to Dr. Irwin: Who established the VT DOH rule and how is it done? Answer:*  
28 *Through Administrative Procedure Act. The Department makes rules that are submitted to*  
29 *Secretary of State, then followed for Public comment, followed by interagency for input,*  
30 *followed by legislative committee who holds public hearings for public comments and are to be*  
31 *addressed.*

32

33 *Chris Campany for George Desch: What is process for site restoration? Answer: Do not have*  
34 *one developed yet. Certainly have interest in including community for public involvement.*

35

36 *Chris Recchia added: PSB has to approve site restoration agreement.*

37

38 *Derrick Jordan to George Desch: Existing storm water system releases water into the Connecticut*  
39 *River and how will be monitored? Answer: Yes it is proposed. No monitor of radiological*  
40 *contaminants water in storm water currently. Proposal is to discharge intrusion water and*  
41 *asked for testing of various contaminants.*

42

1 *Kate O'Connor to George Desch: Is this water the same water that is in the bladders? And does*  
2 *it need to be shipped? Answer by Jack Boyle: Yes, it is the same water and it does not need to*  
3 *be shipped if can be discharged, but shipping out of caution, as investigation is not complete.*  
4 *Discussion ensued regarding the various permits, status and ensuring the water is clean.*

5  
6 *David Deen to Agency: What is public notice requirement? There cannot be any change*  
7 *without full public review before going to storm water. Answer: George Desch will follow up.*

8  
9 *Dr. Irwin to George Desch: When storm water goes through building is it contaminated after it*  
10 *gets into the building or contaminated prior? Answer by Stephen Skibinowsky: Water is*  
11 *sampled. Comment made by another Panel member is to say that is why we are asking for*  
12 *analyticals.*

13  
14 *David Andrews to George Desch: How clean is clean. Is drinkable? No detected activity?*  
15 *Intrusion water is not storm water. What analytical methods used to determine? Answer:*  
16 *Work in progress.*

17  
18 *Jim Tonkovich to Dr. Irwin: With funding decreasing how will carry out DOH rules.*  
19 *Decommissioning oversights can recoup costs; Agency Natural Resources, DOH, Dept of Public*  
20 *Safety can bill back facility owner and seek reimbursement quarterly.*

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22 *Chris Campany: Site restoration standards need to be addressed as that is one of the main*  
23 *reasons for which this Panel exists.*

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25 ***PUBLIC QUESTIONS/COMENTS ON REGULATORY ISSUES:***

26 *Deb Katz of Citizens Awareness Network (CAN) to Dr. Irwin: How much tritium evaporates from*  
27 *bladder while waiting to be transported? Answer: The bladders are sealed, not under heat*  
28 *causing evaporation. Bladders are also in a ventilated building scrubbing the air and monitoring*  
29 *is ongoing to ensure.*

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31 *Deb Katz: CAN does not support the notion of interim storage and that should be noted. Her*  
32 *experience comes from living between Rowe and Entergy and sees that although no one wants*  
33 *waste in their back yard, interim storage targets poor rural areas and it is no better sending*  
34 *high level waste somewhere else. We need an entirely sound and permanently solution to*  
35 *handling the waste. The decommissioning fund is for NH, MA AND VT.*

36  
37 *Ann Darling (Easthampton, MA) of Safe and Green Campaign to Dr. Irwin: Is testing done by*  
38 *DOH similar to VY and how have comparisons faired? Answer: Testing confirmed compliant*  
39 *results by Entergy and NRC reports.*

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41 *John Tuthill (Acworth, NH) to Dr. Irwin: Where is the demarcation line between radioactive*  
42 *waste and solid waste? How handled, track and reported? Answer: Mixed and non mixed are*

1 *sampled, tested and separated radioactive vs. not and placed according to NRC guidelines for all*  
2 *materials to be dismantled and disposed of.*

3  
4 *Megan Buchanan (Guilford, VT) to Entergy. In Joe Lynch's presentation he said Entergy is*  
5 *working with consultants can we have name of firms disclosed. Answer from Jack Boyle: Can*  
6 *get and become record.*

7  
8 *Harvey Schaktman of Citizens Awareness Network to Dr. Irwin: Can you confirm that the tritium*  
9 *collected in bladders is not evaporating, as I understand a system to dispose of contaminated*  
10 *water is to evaporate. Answer VY not using evaporation system.*

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12 **UPDATE ON US DEPT OF ENERGY'S CONSENT-BASED SITING PROCESS:**

13 Chris Campany and Kate O'Connor participated in conference on consent-based siting. Focus  
14 was on public participation and where to store waste. Best to have host and plant communities  
15 have citizen advisory panels help establish performance standards, utilization of resources and  
16 address how interim is interim? Why still talking interim waste solutions when really want and  
17 should be talking about permanent solutions.

18  
19 Chris Recchia: It is untenable to move ahead with technology without a solution in place. We  
20 have at least 50 years of waste compared to thousands years of generations who have to live  
21 with it.

22  
23 **UPDATE ON KATE'S VISIT TO PLYMOUTH, MA**

24 Kate announced she went site in Plymouth, MA where another Entergy plant will be  
25 decommissioned and who does not have a panel yet but want one. She shared what the VT  
26 Panel does, what we learned, what we didn't know and shared they want to work with us as  
27 they go through process.

28  
29 **PUBLIC COMMENTS**

30 Guy Page (Berlin) Interim storage one's waste is one's treasure. Time in Texas and there is fear  
31 about this, the same as wind farms. We have to think of environmental justice. It is not  
32 acceptable to store waste in remote areas where there is a low economy that is not adequately  
33 represented by state. We should look at recycling, as France does. They have reduced carbon  
34 ratio due to recycle power.

35  
36 Ned Chiles (Dummerston) of NE Coalition: France is going bankrupt; dumping waste in English  
37 Channel. Should have left ore in ground. Uranium has no value. Electricity is a byproduct. It  
38 was never cheap, never green. You are wrong. How about not taking apart spent fuel pool?  
39 We do not have way to repair casks if they fail.

40  
41 **WRAP UP AND ADJOURN**



1 Next meeting: Kate asked and confirmed that the Panel wants to take July and August off and  
2 then next meeting will be September 22, 2016. Suggestion made to have presentations in  
3 advance of meeting date and has hand-outs.

4

5 Agenda items for September meeting:

6 1) Briefing from Dept of Safety and home land security emergency management

7 2) Water problems

8 3) Site Restoration

9 4) Federal taxation of nuclear decommissioning trust funds

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11 **MEETING ADJOURNED AT 9:00 PM**

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13 NOTE: Video of meeting will be available at [brattleborotv.org](http://brattleborotv.org). Slides of all presentations are  
14 available at [vydecommissioning.com](http://vydecommissioning.com) or [www.publicservice.vermont.gov](http://www.publicservice.vermont.gov).