1	DRAFT Subject to Approval (prepared for approval at March 22, 2018 meeting)
2	Nuclear Decommissioning Citizens Advisory Panel (NDCAP)
3	Thursday, October 26, 2017
4	Brattleboro Area Middle School – Multipurpose Room- 109 Sunny Acres, Brattleboro, VT
5	Meeting Minutes
6	
7	NDCAP Members Present:
8	 Jack Boyle, Decommissioning Director, Entergy Nuclear Vermont Yankee (VY)
9	 Mike McKenney, Technical Coordinator, Entergy Nuclear Vermont Yankee (VY)
10	 Derrick Jordan (Putney), citizen appointee of VT Speaker of the House Mitzi Johnson
11	• Lissa Weinmann (Brattleboro), Citizen appointee of VT State President Pro Tempore Tim
12	Ashe
13	 Stephen Skibniowsky, representing the Town of Vernon, VT
14	Katie Buckley, Commissioner, Department of Housing and Community Affairs
15	(representing the Agency of Commerce and Community Development)
16	June Tierney, Commissioner of Public Service Department
17	Kate O'Connor (Brattleboro), Chair, citizen appointee of (former) Governor Peter
18	Shumlin
19	Martin Langeveld, Vice Chair (Vernon), citizen appointee of Governor Phil Scott
20	Peter Walke, Deputy Secretary, Agency of Natural Resources
21	 Jim Matteau (Westminster), citizen appointee of (former) Senate President Pro Tempore
22	John Campbell
23	 David Andrews, International Brotherhood of Electric Workers (IBEW); representing
24	present & former employees of Vermont Yankee
25	VT Representative Laura Sibilia, member of the House Committee on Energy and
26	Technology, appointed by Speaker of the House Mitzi Johnson
27	 David Deen, (Westminster), VT State Representative, citizen appointee of (former)
28	Speaker of the House Shap Smith
29	 Chris Campany, Executive Director of the Windham Regional Commission (WRC)
30	 VT State Senator Mark MacDonald, member of the Senate Committee on Natural
31	Resources and Energy
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33	The following NDCAP members were connected to the meeting via teleconference:
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35	 Robert Gustafson, Assistant Planning Chief, Radiological Emergency Preparedness, New
36	Hampshire Emergency Management and Homeland Security (NH HSEM), representing
37	the Towns of Chesterfield, Hinsdale, Richmond, Swanzey, and Winchester, NH, interim
38	appointee of the NH Governor's Office
39	 Dr. William Irwin, designee for the Secretary of the Agency of Human Services

The following NDCAP members were absent from the meeting:

- Massachusetts State Representative Paul W. Mark (Peru, MA), representing the Towns
 of Bernardston, Colrain, Gill, Greenfield, Leyden, Northfield, and Warwick,
 Massachusetts, appointee of (former) MA Governor Deval Patrick
- 4 Meeting called to order at 6:02 pm; A video recording of the meeting is available online at
- 5 http://publicservice.vermont.gov/electric/ndcap and at
- 6 https://www.brattleborotv.org/vt-nuclear-decommissioning-citizens-advisory-panel/vt-ndcap-
 - 102617-mtg.

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INTRODUCTION OF THE PANELISTS AND OVERVIEW OF THE AGENDA:

- 10 The Panel introduced themselves and the Chair gave an overview of the agenda.
- 11 The Chair's introduction begins at 00 hours, 00 minutes & 01 seconds, 00:00:01, into the
- meeting recording. Individual Panelist introductions begin at 00:00:29 into the meeting
- recording. Overview of the meeting agenda begins at 00:02:31 on the meeting recording.

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- **Approval of Meeting Minutes:** Approval of September 28, 2017 minutes. *Approval of the*
- 16 September 28 meeting minutes begins at 00:03:10 on the meeting recording.

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- 18 Robert Gustafson noted that his name and title should be moved from the "Members Present"
- 19 list to the "Members Absent" list. He also noted that he was not appointed by NH Governor
- 20 Chris Sununu, but by his boss, Perry Plummer, Director of NH HSEM and that he is covering for
- 21 Diane Becker, who has retired from NH HSEM. He has been assured that his appointment from
- 22 the New Hampshire Governor's Office can be obtained if deemed necessary.

23

- 24 Page 2, line 19 "tanker" not "takard"
- 25 Page 3, line 27 "the state of Vermont" (not Scott State)
- 26 Page 5, line 13 "aggregate" not "arrogate"
- 27 Page 7, line 10 "mrem" not "mg"
- 28 Page 9, line 13 "graded" not "grated"
- 29 Page 9, line 17 "graded" not "grated"
- 30 Page 9, line 31 insert "from Chuck Schwer" after the word "Question"
- 31 Page 12, line 7 "stake" not "state"

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Motion to approve the minutes as corrected (at 00:07:27 on the meeting recording) passed

with no "nays" or abstentions heard

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- 36 Entergy Update on Decommissioning Activities at VY: Joe Lynch, Government Affairs
- 37 Manager, Entergy Vermont Yankee, gave an update on recent activities. The presentation
- 38 slides for this update are available online at http://publicservice.vermont.gov/electric/ndcap
- and http://vydecommissioning.com/ndcap/. This presentation begins at 00:07:54 on the
- 40 meeting recording.

- State of Vermont Update on VY Decommissioning Activities: Steph Hoffman, Special Counsel
 in the VT Public Service Department, provided a verbal update on recent State of Vermont
- activities related to Vermont Yankee's Decommissioning. This update summarized the status of
 proposed Vermont Yankee sale to NorthStar Group Holdings case currently before the Vermont
- 5 Public Utilities Commission (PUC). Filings related to this PUC case are available online at
- 6 https://epuc.vermont.gov (Case #8880). This presentation begins at 00:18:00 on the meeting recording.

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QUESTIONS AND COMMENTS FROM THE PANEL: On Entergy & State Decommissioning Updates

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Several questions to Joe Lynch were asked by Panelists Derrik Jordan and Lissa Weinmann regarding Joe's summary of Entergy's recent efforts to address groundwater intrusions at the Vermont Yankee site. *These questions begin at 00:22:49 on the meeting recording.*

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Additional questions to Joe Lynch were asked by Panelists Lissa Weinmann and David Deen regarding other portions of Joe's presentation. *These questions begin at 00:26:48 on the meeting recording.*

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Questions for Steph Hoffman and Joe Lynch were asked by Panelists Lissa Weinmann, Peter Walke and Chris Campany. *These questions begin at 00:28:10 on the meeting recording.*

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- On Technical Assistance for Brownfields Review of Non-Radiological Site Restoration Proposal
- 24 Kate O'Connor briefly outlined how NDCAP made contact with the New Jersey Institute of
- 25 Technology and subsequently GEI Consultants to learn more about brownfields and non-
- 26 radiological site restorations. Additionally, Susan McMahan, Associate Director of the
- 27 Windham Regional Commission, was asked to define brownfields for the Panel. Brownfields
- were described as "Land and buildings whose expansion redevelopment or reuse may be
- 29 complicated by the presence or potential presence of hazardous substance, pollutant or
- 30 contaminant." This overview begins at 00:31:25 on the meeting recording.

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34 35 Andrea Poinsett, Project Professional at GEI Consultants, and Sue Boyle, Senior Consultant at GEI Consultants, provided a verbal summary of a review they performed of the Vermont Yankee proposed decommissioning and site restoration scenario documentation they had received on behalf of the Panel. The summary also outlined typical steps in a site restoration effort. *This overview begins at 00:36:25 on the meeting recording.*

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39 40 There are typically 5 basic steps before clean-up resulting either in a No Further Action Designation or a Clean Up Complete Designation. The five phases consist of an Environmental Site Assessment, a Site Investigation, a Remedial Investigation (aka a Corrective Action Plan in Vermont), Remediation, and Redevelopment.

QUESTIONS AND COMMENTS FROM THE PANEL: On Technical Assistance for Brownfields Review

- Questions for Andrea Poinsett and Sue Boyle were asked by Panelists Kate O'Connor, Jack
- 5 Boyle, Mark MacDonald, Lissa Weinmann, Derrik Jordan, David Andrews and Stephen
- 6 Skibniowsky. Additional discussion between Panelists Kate O'Connor, Mark MacDonald, Peter
- 7 Walke, Chris Campany, June Tierney and Bill Irwin also ensued. These questions and exchanges
 - begin at 00:51:52 on the meeting recording.

QUESTIONS AND COMMENTS FROM THE PUBLIC: On Technical Assistance for Brownfields

Public comments begin at 01:25:35 on the meeting recording.

- Comment from Deb Katz, Citizen's Awareness Network: Before 1996, the decommissioning of nuclear reactors was covered by the National Environmental Policy Act (NEPA). Because of that, NRC worked directly with the EPA directly through decommissioning, working on both radiological and non-radiological issues. This has changed with the NRC taking over oversight of all decommissioning actions, leaving the EPA to deal with ground water contamination. The
- 19 major issues in contaminations (at plants such as Connecticut Yankee and Yankee Rowe) were
- 20 PCB, TCE, lead and asbestos. As far as Deb knows, Yankee Rowe still cannot be released
- 21 because of PCB contamination. The work done regarding chemical contamination issues took
- 22 place after radiological contamination issues were dealt with. The NRC has control of this,
- 23 which made it difficult for the DEP in Massachusetts and Connecticut to get needed information
- in terms of non-radiological contamination.

Comment from Bob Leach (Brattleboro): After reviewing almost the same document that Susan and Andrea (GEI Consultants) did, ANR came up with very similar recommendations for NorthStar. NorthStar has hired a company called Haley and Aldrich to conduct all of the tests the State of Vermont has requested.

Comment from John Tutthill (New Hampshire): Andrea (GEI Consultants) mentioned waste substances leaving the site needed to be delineated. Have standards changed since 2001 for the demarcation line for non-radiological material vs. radiological waste. Also, what exactly do we refer to when we say substances are leaving the site? Sue Boyle (GEI Consultants) response: A site is not just shaped by the property's boundaries. It is emanating on to adjoining properties and would need to be remediated there as well. We were not talking about the transportation of material offsite but rather the natural movement of materials off the site through media (i.e. soil and groundwater).

At the end of this Q&A period Kate O'Connor thanked and acknowledged the guests from GEI.

OVERVIEW OF FILINGS: By Intervenors in Public Utility Commission Docket 8880 (Certificate of Public Good (CPG) Entergy Vermont Yankee License Transfer to NorthStar)

Representatives for several of the Intervenors briefly summarized their positions / concerns in the Docket 8880 CPG case:

Rich Holschuh, Elnu Abenaki Tribe,

Clay Turnbull, New England Coalition (NEC),

Bob Spencer, Town of Vernon Planning & Economic Development Commission, Chris

Campany, Windham Regional Commission (WRC)

The Intervenors' presentations begin at 01:31:50 on the meeting recording.

Rich Holschuh (Elnu Abenakis) provided a verbal summary:

The major concern is the protection of the land itself. The Abenaki people were unable to speak up until about 20 years ago as Vermont only recently recognized its natives. Because of that, there was never a study done to prove that there was a burial site (on or near the Vermont Yankee site). The damage is done, but, going forward, actions should be taken in a circumspect manner. We think our concerns are reasonable and would like to have them addressed. Scott State (NorthStar CEO) has already agreed to this.

<u>Clay Turnbull (NEC)</u> provided a PowerPoint presentation and verbal comments. The presentation can be viewed at http://publicservice.vermont.gov/electric/ndcap. Clay's presentation begins at 01:37:37 on the meeting recording.

NEC is interested in how the (VY sale) proposal can be improved, both in terms of timing and quality of the decommissioning. Our options are to return the land to the quality it was before VY or leave the land as an orphaned industrial site. We believe that VY should follow the examples of Maine Yankee, Connecticut Yankee and Yankee Rowe and adopt site restoration standards of 10 millirem (per year) from all pathways and 4 millirem (per year). In looking at other sites, the currently proposed VY standards are not as good. VY standards should be at least as clean as other New England (decommissioned reactor) sites. We believe the land should be left as a nature preserve with no commercial, industrial or residential use. The Maine and Connecticut Yankee nature preserves, found deep pockets of contamination on land which raised the decontamination cost significantly. NorthStar should be required to have a \$200 million performance bond to assure complete radiological and non-radiological cleanup of the site. The site has Native American cultural, ceremonial and ancestral significance. If over a million cubic feet of (rubblized) debris is to be buried onsite, NorthStar should be required to

<u>Bob Spencer (Vernon Planning & Economic Development Commission)</u> provided a verbal summary. *Bob's presentation begins at 01:41:39 on the meeting recording.*

- 41 Our main point this evening is to clarify and amend the Town of Vernon's testimony to the PUC.
- 42 A meeting was held last night (10/25/17) that clarified our testimony. There's been confusion
- around terminology about restricted use, residential use and greenfield. Our testimony uses
- 44 the term "Unrestricted Residential," meaning that the site should be remediated without

get a permit governing solid waste disposal.

limitation for all relevant or appropriate Vermont cleanup standards. Were any other standards to be used for any portion of the site, the Town would want input on which portions of the site were best suited for these standards to assure consistency with the Town Plan. Note also that since 2014 the intent of the Town Plan is to explore the industrial reuse of the VY site. We do not expect any residential use of the site.

The Town has also investigated the proposed clean-up standards for the site. A report prepared by Bob Leach (Vernon's Technical Expert in the PUC case) concluded that rubblization is safe and has environmental advantages to the town provided that the rubble is clean and meets the (site restoration) standards. (Bob Leach's report is available online at https://epuc.vermont.gov (Case #8880)).

We would like to develop a new town plan with help from Windham Regional Commission that pursues redevelopment of the site, allowing it to continue to generate tax base and jobs. Multiple uses for the land, including education, river front access, historical acknowledgement of the site, a place accessible to children, etc. will be considered.

<u>Chris Campany (WRC)</u> provided a verbal summary. *Chris' presentation begins at 01:48:20 on the meeting recording.*

WRC has advocated for immediate decommissioning in previous VY-related dockets to assure the best use of the Decommissioning Trust Fund and to retain as many of the "VY legacy" employees during decommissioning. The main questions that WRC is looking at in the docket are the implications for the site restoration standards for redevelopment, the basis for decommissioning and site restoration cost assumptions including the completeness of the site characterizations, the financial capacity of NorthStar to complete the decommissioning and site restoration, and related financial guarantees, and finally what are the implications if the funds are expended and decommissioning and site restoration are not complete due to unforeseen circumstances. Some of the brown sites we talk about today were developed for industrial use well over 100 years ago. Our decisions will affect many generations from now.

QUESTIONS AND COMMENTS FROM THE PANEL: For Interveners in Docket 8880

Panelists questions to the Intervenors and related exchanges begin at 01:51:48 on the meeting recording.

Panelist David Andrews directed a question to Clay Turnbull regarding NEC's proposed radiological cleanup standards.

A second question by David Andrews to Rich Holschuh regarding previous historical site use investigations for the VY land prompted a discussion of State requirements for site historic investigations. Panelist Katie Buckley (Department of Housing and Community Affairs Commissioner) provided background on historic investigations by the Department of Historic Preservation and noted that relevant comments were recently filed by the State Historic Preservation Officer. (Chair Kate O'Connor noted that perhaps David Andrew's question should be addressed to State Historic Preservation Officer.) Panelist June Tierney (Public Service

Commissioner) also noted that since Docket 8880 was a section 248 proceeding, the archeological standard will be applied by the PUC. The discussion also prompted a comment from Panelist David Deen regarding the likely federal government action regarding a federal investigation for a site with potential historic impact. This resulted in additional Panel discussion between David Deen, June Tierney, Chris Campany and Jim Matteau.

Panelist Lissa Weinmann directed several questions to Bob Spencer regarding the amount necessary to securely store the spent fuel canister (aka dry casks) at the VY site. The questions and their initial replies prompted discussion between Lissa, Bob, Panelist Mike McKenney (Entergy), Panelist Chris Campany (WRC) and an additional comment from Clay Turnbull (NEC). These questions and the related exchanges begin at 02:09:53 on the meeting recording.

At the conclusion discussion (at ~02:17:41 on the meeting recording), Panel Chair Kate O'Connor noted that further discussion on the VY available space and the space required for onsite spent fuel storage will be held at a future meeting. Kate thanked Bob Spencer, Clay Turnbull and Rich Holschuh for their participation in the meeting.

Meeting Schedule for 2017 and 2018

Panel discussion on the future meetings schedule begins at 02:18:12 on the meeting recording.

Kate O'Connor noted that a Panel meeting set for November 16. There is no plan to meet in December.

 Lissa Weinmann stated that the Panel had taken a position on Centralized Interim Storage in a letter on November 27, 2015. NDCAP joined four other communities when calling for this. Centralized Interim Storage means that eventually, all the casks will be moved out somewhere off site to a centralized facility rather than what the federal law now dictates which is a Centralized Geologic Storage Facility. She does not remember hearing anything about the merits of Centralized Interim Storage vs. long term Geologic Storage vs. onsite storage in past meetings. This is a big issue that requires a change in federal law, and in my research, there are quite a lot of complications to Centralized Interim Storage. Let's discuss Centralized Interim Storage since most people will want the radiological material to be gone as soon as possible. Let's consider discussing this at the November meeting.

Additional Panelist discussions ensued on this topic as well as other topics related to the ongoing Vermont Yankee sale case before the PUC. Further discussion on moving early 2018 meeting dates so as not to conflict with the PUC's Technical Hearings schedule for the Vermont Yankee sale case also occurred.

In response to the discussions on Centralized Interim Storage, Panelist (and Public Service Commissioner) June Tierney asked State Nuclear Engineer Tony Leshinskie whether he could discuss details on Centralized Interim Storage and spent fuel transportation plans to such a facility. Tony indicated that he could and agreed to provide a presentation on these topics at the November Panel meeting.

PUBLIC COMMENTS

The meeting's final Public Comments session begins at 02:40:20 on the meeting recording.

Peter Van der Does (Brattleboro): The State Archeologist was called in in the early 1970s to identify bones found in Vernon which were identified as Paleo-Indian. There are also Paleo-Indian carvings under water in Brattleboro (which can be found on Google Images). There would be a huge public outcry if today's graveyards were dug up. I would like to remind you that (the NRC) release (criteria) for industrial use allows for 100 mrem (per year) and release for residential use allows for 25mrem (per year). 100 mrem for industrial use is accepted under the assumption that a worker will only be on site for one shift a day. 25mrem for residential use assumes that one will live there full time. The difference represents about 7 people per 10,000 who would be susceptible to cancer according to the Biological Effects Ionizing Radiation report (BEIR 7). This study is accepted by the Nuclear Regulatory Commission and the Environmental Protection Agency.

UPDATES, WRAP UP AND ADJOURN:

Next meeting: November 16th, 2017

MEETING ADJOURNED AT 8:55 pm