

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Petition of Entergy Nuclear Vermont Yankee, LLC, and )  
Entergy Nuclear Operations, Inc., for amendment of their )  
certificates of public good and other approvals required )  
under 10 V.S.A. §§ 6501-6504 and 30 V.S.A. §§ 231(a), ) Docket No. \_\_\_\_\_  
248 & 254, for authority to continue after March 21, 2012, )  
operation of the Vermont Yankee Nuclear Power Station, )  
including the storage of spent-nuclear fuel )

SUMMARY OF PREFILED TESTIMONY OF JOHN GOODELL

Mr. Goodell’s testimony addresses the VY Station’s compliance with most aspects of the fifth criterion of Section 248, 30 V.S.A. § 248 (b)(5), which concerns the VY Station’s impact on land use and the natural environment—and includes most of the criteria from Act 250 to which the Board must give due consideration under Section 248—as well as non-radiological aspects of the VY Station’s impact on the public health and safety. Mr. Goodell concludes that continued operation of the VY Station will have no undue adverse effect on the natural environment and the public health and safety, with due consideration given to Act 250 criteria addressing air and water pollution, flooding, wetlands, solid-waste management, erosion, use of municipal and school services, impact on infrastructure, threatened and endangered species and rare or irreplaceable natural areas.

Mr. Goodell sponsors the following exhibits:

Exhibit EN-JG-1	Resume of John Goodell
Exhibit EN-JG-2	U.S. Geological Survey Map
Exhibit EN-JG-3	Aerial Photos of Site
Exhibit EN-JG-4	Site Plan
Exhibit EN-JG-5	Cross-Section of Site
Exhibit EN-JG-6	Floodplains Map
Exhibit EN-JG-7	National Wetlands Inventory Map and ANR Environmental Interest Locator Map

Exhibit EN-JG-8	Vermont Yankee Wetlands Map
Exhibit EN-JG-9	Permit # WW-2-1035
Exhibit EN-JG-10	Vernon Police Department Letter dated January 22, 2008
Exhibit EN-JG-11	Vernon Fire Department Letter dated January 21, 2008
Exhibit EN-JG-12	Vermont Agency of Natural Resources Letter dated February 14, 2008
Exhibit EN-JG-13	Site Plan with locations of observed species and natural communities
Exhibit EN-JG-14	State of Vermont Natural Resources Board Letter dated January 16, 2008

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Docket No. \_\_\_\_\_

PREFILED TESTIMONY OF JOHN GOODELL

- 1 Q1. State your name
- 2 A1. John Goodell.
- 3 Q2. What is your position, and by whom are you employed?
- 4 A2. I am a civil engineer with the firm of SVE Associates.
- 5 Q3. What are your qualifications to sponsor the testimony you intend to present?
- 6 A3. I am a licensed professional engineer in good standing in Vermont. Over the years, I
- 7 have had responsibility for preparing site plans, facilitating environmental permits,
- 8 preparing water, wastewater and stormwater-run-off designs and generally analyzing
- 9 environmental impacts on behalf of Entergy Nuclear Vermont Yankee, LLC, and Entergy
- 10 Nuclear Operations, Inc. (to which I refer in my testimony collectively as “Entergy VY”),
- 11 at the Vermont Yankee Nuclear Power Station (to which I refer in my testimony as the
- 12 “VY Station” or “Station”). I have previously testified in connection with the VY Station
- 13 before the Vermont Public Service Board on environmental matters in connection with
- 14 the VY Station in Docket Nos. 7082 and 7208.

1 Exhibit EN-JG-1 is my resume, which provides my qualifications.

2 Q4. What is the purpose of your testimony?

3 A4. My testimony will address the VY Station's compliance with most aspects of the fifth  
4 Section 248 criterion, which concerns the VY Station's impact on land use and the  
5 natural environment—and includes most of the criteria from Act 250 to which the Board  
6 must give due consideration under Section 248—as well as non-radiological aspects of  
7 the VY Station's impact on public health and safety.

8

9 In accordance with Rule 5.402(c), Exhibits EN-JG-2, EN-JG-3, EN-JG-4 and EN-JG-5  
10 are, respectively, a U.S. Geological Survey Map showing the location of the VY Station;  
11 aerial photographs of the site; the VY Station's site plan showing the existing facilities,  
12 topography, grades and significant natural and man-made features; and a cross-section of  
13 the site. Exhibit EN-HLD-3 includes relevant color photographs of the Station and the  
14 Station site from various locations prepared by Witness Harry Dodson.

15

16 **Act 250 Criterion 1: Air and Water Pollution**

17 Q5. Will the VY Station result in undue air pollution?

18 A5. No. The VY Station will not cause undue air pollution.

19

20 The VY Station is a registered source as defined by Section 5-801 of the State of  
21 Vermont Air Control Regulations and makes the required reports and payment of fees for  
22 the annual renewal of its Air Source Registration. The VY Station's allowable emissions

1 are less than 10 tons per year, and therefore it does not require an Air Pollution Control  
2 Construction or Operating Permit. Entergy VY does, however, file an annual Air  
3 Emissions Inventory Report with the Air Pollution Control Division of the Vermont  
4 Department of Environmental Conservation (to which I refer in my testimony as  
5 “VDEC”) of the Vermont Agency of Natural Resources (to which I refer in my testimony  
6 as “ANR”).

7  
8 There are other sources of emissions, including two oil-fired boilers (to which I refer in  
9 my testimony as the “house-heating boilers”) that heat the turbine building, reactor  
10 building, administrative building, stores building and AOG building, which are  
11 considered “significant” sources of allowable emissions under the Vermont Air Pollution  
12 Regulations (adopted through April 27, 2007). The VY Station also has the following  
13 minor sources of allowable emissions: an oil-fired, hot-air furnace in the North  
14 Warehouse, an oil-fired boiler in the PSB building, an oil-fired boiler in the receiving  
15 building and three diesel-powered electric generators. These minor sources are typical  
16 systems for heating and backup power for a commercial/industrial site and are not  
17 directly related to the production of electricity.

18  
19 As of September 2007, Entergy VY burned only ultra-low-sulfur diesel, even in the  
20 Station’s most significant emissions source, the house-heating boilers.

1 In Docket No. 6976, Entergy VY received approval from this Board to construct a  
2 parking area or areas at the VY Station with a total parking capacity of 991 vehicles, less  
3 than the 1,000 motor-vehicle minimum that would require an indirect source permit  
4 under Section 5-503 of the State of Vermont Air Pollution Control Regulations.

5 Q6. Will the Station result in undue water pollution?

6 A6. No. Continued operation of the VY Station will not cause undue water pollution as I will  
7 testify in more detail with respect to specific Act 250 criteria that the Board must  
8 consider under Section 248(b)(5). The Station's permits issued by VDEC regulating  
9 water supply, domestic wastewater disposal and stormwater runoff will be maintained,  
10 and their conditions will continue to govern the Station's use of water.

11 Q7. Does the VY Station use water for its operations?

12 A7. Yes. I should first note, as described in greater detail in the testimony of Witness Thayer,  
13 that the VY Station uses water for the purpose of creating steam to generate electricity.  
14 This water is circulated in a closed-cycle, and there will be no change in this closed-cycle  
15 system after 2012.

16  
17 In addition, the VY Station withdraws water from the Connecticut River for purposes of  
18 cooling the closed-cycle water used to create steam. That water withdrawal is subject to  
19 regulation by ANR as authorized by the federal Clean Water Act under serially-issued  
20 NPDES Permits, VT0000264, No. 3-1199. The current National Pollutant Discharge  
21 Elimination System (or "NPDES") Permit was issued, as amended, by ANR on  
22 September 28, 2004, to Entergy VY, and the permit is administered by the Wastewater

1 Management Division of ANR. That NPDES permit limits the discharge of thermal  
2 effluent by the VY Station to the Connecticut River.

3  
4 In February 2003, Entergy VY filed an application with ANR seeking a one-degree  
5 Fahrenheit increase in the VY Station's thermal-discharge limitations—as compared to  
6 the thermal discharge authorized in the VY Station's pre-existing permit—from May  
7 16th to October 14th each year. Entergy VY's request was submitted under Section  
8 316(a) of the Clean Water Act, 33 U.S.C. § 1326(a), 40 C.F.R. §§ 125.70-.73 and  
9 applicable Vermont law.

10 Q8. Please describe the NPDES permit proceedings and their current status.

11 A8. The initial application contained an "Initial 316(a) Demonstration" and an "Initial  
12 Hydrothermal Modeling Report," documents that were later revised following  
13 commentary by ANR and other reviewers. Entergy VY's request contained a predictive  
14 study of the proposed thermal discharge and, alternatively, a retrospective assessment of  
15 the Station's thermal discharges during the period from 1991 (when the VY Station was  
16 first permitted to discharge regularly during the May 16th-to-October 14th period) to  
17 2002. Thus, Entergy VY essentially performed two Section 316(a) demonstrations.

18  
19 ANR substantially granted Entergy VY's request and issued an amendment to its pre-  
20 existing NPDES Permit on March 30, 2006, thereby finding that the proposed discharge  
21 conforms to the State of Vermont's Water Quality Standards and other regulatory  
22 requirements. The amended NPDES permit allows a one-degree-Fahrenheit increase in

1 the thermal-discharge limits applicable to the Station from June 16th to October 14th.  
2 Following the issuance of the amended NPDES Permit, Connecticut River Watershed  
3 Council, New England Coalition and Entergy VY filed notices of appeal.

4  
5 The parties submitted prefiled testimony in June 2007, and a trial took place before Judge  
6 Wright of the Vermont Environmental Court (specially sitting in Newfane, Vermont)  
7 in July 2007. Following additional, post-trial briefing, each party submitted proposed  
8 findings of fact and conclusions of law to the court. Entergy VY and the other parties  
9 await the court's decision, which is pending.

10 Q9. Are there other water discharge issues related to the VY Station?

11 A9. Yes. In terms of other discharges, direct or indirect, to the Connecticut River, the VY  
12 Station is located in an area covered with sections of pavement, stone and grass on a  
13 sandy plateau above the river. The riverbank area between the VY Station and the  
14 Connecticut River is a developed area covered with areas of grass, stone fill and  
15 pavement. Surface water in the VY Station area either leaches into the ground and  
16 travels a short distance through the sandy soil to the Connecticut River, where it  
17 discharges along the riverbank, or is collected in the existing storm-drain system and  
18 discharged directly to the river. The surface water does not have the opportunity to reach  
19 the bedrock aquifer in any significant amounts, and the VY Station is thus not located in  
20 a significant aquifer-recharge area.

1 I discuss the discharge of stormwater under ANR stormwater permits in greater detail  
2 later in my testimony. Entergy VY also has approval to discharge wastewater indirectly  
3 under Indirect Discharge Permit ID-9-0036, which I also discuss later in my testimony.

4  
5 In summary, continued operation of the VY Station will not in any way change the nature  
6 of impact in terms of air emissions or water pollution and will comply with applicable  
7 regulations adopted by ANR.

8

9 **Act 250 Sub-Criterion 1(A): Headwaters**

10 Q10. Is the VY Station in a headwaters area?

11 A10. No. The VY Station area is not located in the headwaters of applicable watersheds,  
12 characterized by steep slopes and shallow soils, and is located in a drainage area, the  
13 Connecticut River, greater than 20 square miles. The VY Station area is not over 1,500  
14 feet in elevation—the elevation is approximately 252 feet above sea level—and is not the  
15 watershed of a public-water supply as designated by the VDEC's Water Supply Division.  
16 As I discuss previously, surface water at the VY Station area does not have the  
17 opportunity to reach the bedrock aquifer in any significant amounts, and the VY Station  
18 is thus not located in a significant aquifer-recharge area.

1 **Act 250 Sub-Criterion 1(B): Waste Disposal**

2 Q11. Will the VY Station meet applicable regulations regarding the disposal of waste adopted  
3 by the VDEC, and does it involve the injection of waste materials or harmful or toxic  
4 substances into groundwater or wells?

5 A11. The VY Station will continue to meet all applicable VDEC regulations regarding the  
6 disposal of waste. As I understand there will be no physical changes to facilities,  
7 continued operation will not create new, construction-related waste material or non-  
8 radiological harmful or toxic substances, and the VY Station will continue to dispose of  
9 any non-radioactive waste at a certified, solid-waste-management facility in Vermont or  
10 another state. Entergy VY is a Small Quantity Generator of hazardous waste and will  
11 continue to dispose of these wastes under EPA RCRA Id. No. VTR 000504167.

12  
13 Domestic wastewater will continue to be disposed in the plant's septic systems and leach  
14 fields in accordance with Water Supply/Wastewater Disposal Permit WW-2-1035-3,  
15 Indirect Discharge Permit ID-9-0036 and Residuals or Solid Waste Management  
16 Certification F0405, Facility ID 253, issued by ANR. I discuss the discharge of  
17 stormwater later in my testimony.

18  
19 I note that my testimony addresses regulations applicable to the VY Station that do not  
20 involve the disposal of radiated materials, which are subject to the NRC jurisdiction. I  
21 understand—as more fully addressed in Witness Cloutier's testimony—that the VY  
22 Station will have to be decommissioned whether it ceases operation in 2012 or at a later

1 date; therefore, the VY Station's decommissioning will be subject to regulation and  
2 oversight by the NRC and will occur whether the VY Station continues to operate after  
3 2012 or not.

4  
5 **Act 250 Sub-Criterion 1(C): Water Conservation**

6 Q12. During its continued operation, will the VY Station, whenever feasible, consider water  
7 conservation, incorporate multiple use or recycling where technically and economically  
8 practical, utilize the best available technology for such applications, and provide for  
9 continued efficient operation of these systems?

10 A12. Yes. Witness Thayer testifies on the incorporation of conservation and the recycling of  
11 water drawn from on-site wells for use in the reactor and other operations at the VY  
12 Station.

13  
14 The VY Station's supply and use of water is governed by Water Supply/Wastewater  
15 Disposal Permit WW-2-1035-3 and Public Water System Permits to Operate WSID  
16 #20738 NEOB (BSB) PIN N575-0006.06, #8332 PIN N575-0006 and #20559 COB PIN  
17 N575-0006. Water Supply/Wastewater Disposal Permit WW-2-1035-3 approves the uses  
18 and water flows and requires the use of low-flow plumbing fixtures, as applicable, in the  
19 VY Station's buildings.

1 **Act 250 Sub-Criterion 1(D): Floodways**

2 Q13. Will the continued operation of the VY Station restrict or divert the flow of flood waters,  
3 or endanger the health, safety and welfare of the public or riparian owners during  
4 flooding?

5 A13. No. Other than the river-intake structure, the Station's structures are well outside of the  
6 100-year and 500-year floodplains comprising of the floodway and the floodway fringe,  
7 which are shown on Exhibit EN-JG-6. The VY Station and related improvements are  
8 built at an elevation generally around 252 feet above sea level, a level in excess of the  
9 FEMA 100- and 500-year flood elevations, which are approximately 226.3 and 230.9 feet  
10 above sea level at the VY Station's intake structure (based on FEMA Flood Insurance  
11 Study Profile and Mapping, effective September 28, 2007).

12

13 **Act 250 Sub-Criteria 1(E) and (F): Streams and Shorelines of Rivers**

14 Q14. Will continued operation of the VY Station maintain the natural condition of streams and  
15 not endanger the health, safety or welfare of the public or of adjoining landowners, and  
16 will the VY Station, which is located on the shoreline of the Connecticut River, have any  
17 additional impact on the shoreline or adjacent waters, affect recreational and other access  
18 to the water, remove vegetation or destabilize the shoreline's bank?

19 A14. Other than a small and unnamed, intermittent-stream-drainage channel approximately  
20 500-feet long and located west of the VY Station area, the only waterway near the VY  
21 Station area is the Connecticut River. This seasonal stream is not likely to be impacted  
22 by the continued operation of the VY Station as it has been receiving plant runoff since

1 the original plant's construction and remains in a stable condition with stormwater  
2 outfalls well armored with stone fill. Stormwater runoff to the Connecticut River is  
3 through overland flow and from the existing stormwater system discharging directly to  
4 the river. Runoff to the Connecticut River is regulated under Stormwater Discharge  
5 Operating Permits, issued under Vermont General Permit 3-9015 and by the Station's  
6 NPDES permit. I previously discussed the Station's NPDES permit to discharge cooling  
7 water.

8  
9 Continued operation of the VY Station will require periodic trimming of brush along the  
10 shoreline for security purposes; however, this security maintenance activity is not likely  
11 to destabilize the soil. While the VY Station is protected by a security fence that prevents  
12 access to the site, the VY Station's continued operation requires no changes that will  
13 further restrict access to the Connecticut River, and the public will continue to have  
14 access to the river at other locations and may continue recreational use of the river  
15 adjacent to the VY Station.

16  
17 **Act 250 Sub-Criterion 1(G): Wetlands**

18 Q15. Will the VY Station's continued operation violate any rules of the Water Resources  
19 Board relating to significant wetlands?

20 A15. No. Based on our review of the National Wetlands Inventory Mapping, dated October  
21 1975, there are no significant, Class I or Class II, wetlands on the operational portion of  
22 the VY Station site as depicted on Exhibit EN-JG-4, the VY Station's site plan. Exhibit

1 EN-JG-7 is a copy of the National Wetlands Inventory Map and the ANR Environmental  
2 Interest Locator Map showing the state-designated (Class I or Class II) wetlands in the  
3 northwestern, non-operational portion of the VY Station site.

4  
5 The operational portion of the VY Station site depicted on Exhibit EN-JG-4, the VY  
6 Station's site plan, does contain several Class III wetlands that are subject to the U.S.  
7 Army Corps of Engineers' jurisdiction; however, these wetlands are located in areas of  
8 the site that see little activity. To ensure these Class III wetland areas are not  
9 inadvertently impacted in the future, they have been mapped to allow easy review prior to  
10 any site projects. Exhibit EN-JG-8 is a copy of the Vermont Yankee Wetlands Map.

11  
12 **Act 250 Criteria 2 and 3: Availability of Water and Burden on Existing Water Supply**

13 Q16. Is there sufficient water available for the reasonably foreseeable needs of the VY Station,  
14 will such needs unreasonably burden an existing supply and will the VY Station's  
15 continued operation conserve water and recycle water where technically and  
16 economically practical using best available technology for continued, efficient operation?

17 A16. As I previously testified, the VY Station draws water from the Connecticut River for  
18 purposes of cooling and, depending on the operational mode, discharges the river water  
19 back into the river. As I previously testified, with the exception of the evaporative loss  
20 via the operation of the Station's cooling towers in the summer months, this process  
21 "recycles"—or returns—the river water to the Connecticut River. As I also mentioned,

1 the water used to create steam to generate electricity is contained in a closed-cycle (not  
2 river water).

3  
4 Again, I note that the VY Station has a NPDES permit and as such the volume and  
5 availability of water that it uses and discharges is subject to regulation by ANR.

6 Additionally, I understand that an amount of water withdrawn from the Connecticut  
7 River between May and October when the cooling towers are in operation is not returned  
8 to the river because of evaporation. I understand that about 5,000 to 6,000 gallons per  
9 minute may be withdrawn at times when thermal demand is high.

10  
11 Last, the VY Station has several wells used to provide potable water for the plant's  
12 buildings as authorized under Water Supply/Wastewater Disposal Permit WW-2-1035-3  
13 and Public Water System Permits to Operate WSID #20738 NEOB (PSB) PIN NS575-  
14 0006.06, #8332 PIN N575-0006 and #20559 COB PIN N575-0006, issued by ANR. The  
15 permitted water flow for each of these water systems is shown on Exhibit EN-JG-9. The  
16 VY Station's wells are located at least 450 feet from the nearest neighbor's well, and  
17 there has been no history of complaints or expression of concerns about adverse impacts  
18 on these wells' capacity or quality.

19  
20 Each of the wells is tested quarterly as required by the ANR Water Quality Division, with  
21 the test results provided to the Water Quality Division.

1 **Act 250 Criterion 4: Erosion Control**

2 Q17. Will the VY Station cause unreasonable soil erosion or reduction in the capacity of the  
3 land to hold water?

4 A17. The VY Station is located on a relatively flat site located above the Connecticut River  
5 and over the years has been engineered to establish stormwater-drainage systems and  
6 other erosion-stabilizing features subject to applicable ANR stormwater-operating  
7 permits. Current stormwater discharges from construction activity related to the Dry-  
8 Fuel-Storage (to which I refer in my testimony as “DFS”) Project are authorized under  
9 Construction General Permit 3-9020 (Authorization of Notice of Intent #3653-9020).  
10 Ongoing stormwater discharges at the Station are authorized under Authorization to  
11 Discharge #4213-9015 for the DFS pad approved by the Board in Docket No. 7082 and  
12 Authorization to Discharge #3653-9015 for the access road and parking lot approved by  
13 the Board in Docket No. 6976.

14  
15 The VY Station has also obtained coverage under a Multi-Sector Permit for Stormwater  
16 Discharges Associated with Industrial Activity (or “SGP”) through Permit #3653-9003,  
17 which covers the entire Station. Entergy VY has submitted a draft Stormwater Pollution  
18 Prevention Plan (or “SWPPP”) to the VDEC Stormwater Section for review and is in the  
19 process of finalizing its SWPPP. These systems and features ensure that the VY  
20 Station’s operation—and therefore its continued operation—will not cause unreasonable  
21 soil erosion or reduction in the capacity of the land underneath the VY Station to hold

1 water. The continued operation of the VY Station after 2012 will not change these  
2 systems and features.

3

4 **Action 250 Criterion 5: Transportation**

5 Q18. Will the VY Station cause unusual congestion or unsafe conditions with respect to  
6 transportation?

7 A18. No. Continued operation of the VY Station will not change the nature of traffic to and  
8 from the Station. Daily traffic to and from the VY Station is about 873 vehicles; that  
9 number will not change materially during the VY Station's continued operation after  
10 2012. Traffic to and from the Station during planned outages adds approximately 1,200  
11 vehicle trips per day to and from the VY Station for a period of several weeks.

12

13 The local and State highway system located near the VY Station is able today to handle  
14 this local traffic without noticeable congestion or unsafe conditions. Continued operation  
15 of the VY Station after 2012 will not change these effects.

16

17 **Act 250 Criterion 6: Education Services**

18 Q19. Will the VY Station cause an unreasonable burden on the ability of the Town of Vernon  
19 to provide educational services?

20 A19. No. Continued operation of the VY Station will have no additional impact on  
21 educational services: I understand from Entergy VY that it will not change the number of

1 employees and contractors at the VY Station and therefore the number of employee and  
2 contractor children educated in the area.

3  
4 **Act 250 Criterion 7: Municipal or Governmental Services**

5 Q20. Will continued operation of the VY Station place an unreasonable burden on the ability  
6 of the Town of Vernon to provide municipal or governmental services?

7 A20. No. Entergy VY has reviewed its plans for continued operation of the VY Station with  
8 the Chief of the Vernon Police Department, the Chief of the Vernon Volunteer Fire  
9 Company, the Vernon Selectboard and the Vernon Planning Commission. The Vernon  
10 Police Department found that (i) it can adequately provide law-enforcement-protection  
11 services for the VY Station without interfering with the Police Department's regular  
12 scheduling and other duties and (ii) continued operations will have not have an undue  
13 adverse effect on the public health and safety. Similarly, the Vernon Volunteer Fire  
14 Company found that (i) it can provide adequate, fire-protection services to the VY Station  
15 without unduly burdening the Fire Company and (ii) continued operation of the VY  
16 Station will not have an undue adverse effect on the public health and safety. Exhibits  
17 EN-JG-10 and EN-JG-11 are letters from the Chief of the Vernon Police Department and  
18 the Chief of the Vernon Volunteer Fire Company, respectively.

19  
20 As Witness Dodson has testified, by letter dated December 4, 2007, the Vernon  
21 Selectboard stated that upon review of Entergy VY's plans for continued operation of the  
22 VY Station, the Selectboard found that such operation will not unduly interfere with the

1 orderly development of the region or overburden municipal and governmental services in  
2 the Town of Vernon. Exhibit EN-HLD-10 is the letter from the Vernon Selectboard.

3  
4 As Mr. Dodson has also testified, by letter dated December 8, 2007, the Vernon Planning  
5 Commission stated that upon review of such plans, the Commission found that continued  
6 operation of the VY Station will not unduly interfere with the orderly development of the  
7 region or overburden municipal and governmental services in the Town of Vernon.

8 Exhibit EN-HLD-9 is the letter from the Vernon Planning Commission.

9  
10 The continued operation of the VY Station will not require municipal sewer or water-  
11 supply services, new public roads or additional road maintenance.

12  
13 **Act 250 Sub-Criterion 8(A): Wildlife and Endangered Species Habitat**

14 Q21. Are there significant habitats or rare plants or animals at or near the VY Station site?

15 A21. Mr. Everett Marshall of the Vermont Fish and Wildlife Department Nongame and  
16 Natural Heritage Program has reviewed the Department's database for documented  
17 occurrence of rare, threatened and endangered species and significant natural  
18 communities in the vicinity of the VY Station site. Exhibit EN-JG-12 is Mr. Marshall's  
19 letter dated February 14, 2008, with the list of occurrences of rare species and significant  
20 natural communities organized by survey site; an explanation of ranking and status of  
21 species and natural communities; two maps indicating the locations of species and natural  
22 communities for the areas above, below and in the vicinity of the Vernon Dam; and a

1 summary of the occurrence data for each record of rare species and significant natural  
2 community.

3  
4 The VY Station is wholly located in an area that has been previously and extensively  
5 developed since the late 1960s. Based on our review of the data provided by Mr.  
6 Marshall, it appears that the locations of the observed species and natural communities  
7 included in the Vermont Fish and Wildlife Department's data base are not within the  
8 operational portion of the VY Station site. Exhibit EN-JG-13 is a copy of VY Station's  
9 site plan, with the approximate locations of the observed species and natural communities  
10 referenced in the attachments to Mr. Marshall's letter.

11  
12 As Entergy VY has done in the past, any significant modifications to its ongoing  
13 operations will include a review of the potential impacts, if any, to the species and natural  
14 communities included in the Vermont Fish and Wildlife Department's data base provided  
15 by Mr. Marshall for the Board's review and evaluation.

16  
17 **Act 250 Sub-Criterion 9(K): Public Investment**

18 Q22. Will the VY Station unnecessarily or unreasonably endanger the public or quasi-public  
19 investment in or materially jeopardize or interfere with the functioning, efficiency or  
20 safety or the public's use or enjoyment or access to the Connecticut River?

21 A22. No. A significant public-utility facility is the VY Station itself. The other public or  
22 quasi-public facilities, services or lands in the VY Station's area are the New England

1 Central Railroad's mainline, the hydroelectric station located at Vernon Dam, the  
2 Connecticut River and the Town of Vernon's roads.

3  
4 Continued operation of the Station will have no impact on operation of the New England  
5 Central Railroad, and several trains including Amtrak's Vermonter pass near (about  
6 1,100 feet at the closest point) but outside of the VY Station's site daily. The Vernon  
7 hydroelectric station is approximately 450 feet from the VY Station's fence and functions  
8 today without impact from the VY Station, other than the minimal evaporation of cooling  
9 water that is not discharged to the Connecticut River above the dam.

10  
11 Continued operation of the VY Station is not expected to have any new or adverse effects  
12 on the Connecticut River. I note, as well, that access to the river through the VY  
13 Station's lands is already restricted. The continued operation of the Station will not,  
14 however, change the public's ability to pass up and down the Connecticut River safely as  
15 they do today.

16  
17 The testimony of Witness Dodson addresses the aesthetic impact of the VY Station on the  
18 views from the Connecticut River as well as the public's ability to access the river from  
19 other locations.

1 Continued operation of the VY Station will not require a significant change in the number  
2 of vehicles traveling to and from the plant during daily operations and will therefore not  
3 cause any significant new impacts to town and state roads.

4  
5 **Subsection 248(b)(5): Public Health and Safety**

6 Q23. Will the VY Station have an undue adverse effect on the public health and safety?

7 A23. No. As I previously testified, the Chief of the Vernon Police Department and Chief of  
8 the Vernon Volunteer Fire Company have reviewed the continued operation of the VY  
9 Station and determined that such continued operation will not have an undue adverse  
10 effect on the public health and safety; as noted in Exhibits EN-JG-10 and 11.

11  
12 **Outstanding Resource Waters**

13  
14 Q24. Under Section 248(b)(8) and 10 V.S.A. § 1424a(d)—incorporated into Section 248 by  
15 Section 248(b)(5)—the Board must also find that the project does not involve a facility  
16 affecting or located on any segment of waters of the state that have been designated as  
17 outstanding resource waters. In your opinion, do the criteria for designating outstanding  
18 resource waters apply to continued operation of the VY Station?

19 A24. No. The VY Station is located on the Connecticut River, which has not been designated  
20 an outstanding resource water. Exhibit EN-JG-14 is a letter from the Chair of the Water  
21 Resources Panel of the Natural Resources Board confirming that the Connecticut River is  
22 not currently designated as outstanding resource waters by the Water Resources Board or

1           the Water Resources Panel of the Natural Resources Board and that there are no pending  
2           petitions to consider designation of the Connecticut River as outstanding resource waters.

3   Q25.   Does this conclude your testimony?

4   A25.   Yes.