

VERMONT YANKEE’S RESPONSES TO MARCH 6, 2015 RFI REQUESTS

Request	Response (or Reasons Why a Response Cannot Be Provided at this Time)
<p>1. “Identify, fully describe, and provide all documents that refer or relate to non-radiological waste-related deconstruction activities that commenced on Site after December 29, 2014, through and including the date of your response to this request. . . .”</p>	<p>Since shutdown, seven structures on the site were identified as candidates for early removal:</p> <ol style="list-style-type: none"> 1) Power Uprate Building (modular office building removed in sections for salvage) 2) Maine Yankee Building (Domed post and beam structure disassembled for salvage) 3) Rotor Building – Demolished and debris removed from site 4) On-Site Storage Container (“OSSC”) Structure – Demolished to slab, debris remains on site and will be sent for off-site disposal as “Green is Clean” (debris will be assessed by vendor and disposed of as clean waste or exempt quantity radioactive waste. 5) Tan Modular Building – modular office building demolished and debris removed from site to clean landfill in Vermont. 6) Pipe Storage Building – demolition preparations in progress. Contractor has option of dismantling for reuse or demolition in place. 7) South Warehouse – demolition to slab in progress, debris will be removed from site to clean landfill in Vermont 7a) Two underground storage tanks (“UST”) located adjacent to the South Warehouse on the north side were removed as part of the demolition preparations. The USTs have installed Veeder Root monitoring systems that were powered from the Warehouse. The cost benefit analysis indicated it would be more cost effective to remove the tanks than to repower the Veeder Root monitoring. The tanks were not required to support dormancy conditions and

	<p>would have required either abandonment in place or removal. A closure report pertaining to the USTs has been transmitted to ANR on March 10, 2015.</p> <p>For each of the structures identified above, a hazard assessment was conducted by a trained and qualified employee and it was determined no hazardous waste resided in the structures. National Environmental Standards for Hazardous Air Emissions (“NESHAPS”) notifications were provided to U.S. Environmental Protection Agency (“EPA”) Region 1 and the Vermont Department of Environmental Conservation in accordance with Federal and State Regulations. The USTs were removed by a licensed contractor that notified the State in accordance with regulations and has prepared and will transmit a closure report.</p> <p>Copies of these NESHAPS and of the UST closure report that was transmitted to ANR on March 10, 2015 are enclosed.</p>
<p>2. “Identify each person, corporation, partnership, or other business entity (including sole proprietors) that is or has been charged with or is otherwise responsible for performing, managing, or overseeing Site non-radiological waste-related deconstruction activities. This response shall include:</p> <p>a. For each Entergy employee, the person’s name, job title, duties, qualifications, and contact information;</p> <p>b. For each corporation, partnership, sole proprietor, or other business entity acting as a consultant or contractor for such activities, the entity’s name, the scope of the entity’s work performed or to be performed on Site, the entity’s internal organizational chart, and contact information for the entity’s operations on Site.”</p>	<p>With regard to request 2(a), during the meeting on March 19, 2015, Vermont Yankee and ANR Staff agreed to designate single points of contacts regarding questions associated with the early demolition activities. Vermont Yankee has designated Mr. Joseph Lynch as the single point of contact. Mr. Lynch’s contact information and experience are summarized below.</p> <p>Joseph R. Lynch Manager – Government Affairs Entergy Vermont Yankee 320 Governor Hunt Road Vernon, VT 05354 Office: 802-451-3160 Mobile: 508-728-1421 Email: jlynch4@entergy.com</p> <p>Mr. Lynch has worked at two other nuclear decommissioning projects in New England with responsibilities for the oversight of physical</p>

decommissioning at Connecticut Yankee and was Site Closure Director at the Yankee Rowe Nuclear Power Station in Massachusetts. It was at that site Mr. Lynch work in collaboration with the State of Massachusetts and the agencies with jurisdiction over site restoration and closure.

The corporations and other business entities responsible for the relevant activities are listed below, along with the address, telephone number and scope of work for each:

Bernie LaRock and Son Construction Inc.
1266 Coolidge Highway Route 5
Guilford, VT 05301
Justin LaRock or Rocky LaRock (802) 254-4222

Scope – Provide demolition preparation and demolition services for Tan Modular Building, South Warehouse, and Pipe Storage Building. No internal organization chart available.

Triple T Trucking
437 Vernon Road
Brattleboro, VT 05301
Norman Mallory (802) 254-5388
Scope – Haul and dispose of demolition debris associated with the structures identified as scope for Bernie LaRock and Son Construction Inc. No internal organization chart available.

DB Environmental Consulting
PO Box 815
Brattleboro, VT 05302
David Balk, P.G., R. S. – (802) 258-0630
Scope – Removal of one 500 gallon and one 1000 gallon underground storage tank previously used for storage and dispensing of diesel fuel for site equipment and vehicles. No internal organization chart available.

David Manning, Inc.
103 Frost Place
Brattleboro, VT 05301
David Manning – (802) 258-3962
Scope – Subcontractor to DB Environmental

	<p>Consulting. No internal organization chart available.</p> <p>Renaud Brothers Construction 283 Forth Bridgeman Road Vernon, VT 05354 Mike Renaud – (802) 257-7383 Scope – Deconstruction for reuse of the Power Uprate Building and the Maine Yankee Building. Demolition of the Rotor Building and the On-Site Storage Containers (OSSC). No internal organization chart available.</p>
<p>3(a). “All reports and other identified sources of information on which the SAS relies, as requested in ANR – 1.”</p>	<p>Based on discussions with ANR Staff on 3/19/2015, Vermont Yankee understands that the references requested by this RFI request were for the Non-Radiological Historical Site Assessment, and not the Site Assessment Study. Those documents are as follows:</p> <p>1) Phase I and II Environmental Site Assessment, Vermont Yankee Nuclear Power Corporation, Environmental Compliance Services, Inc., June 4, 2001. This document was previously provided to ANR Staff during a VY Decommissioning Workshop conducted in 2014; the Appendices are provided consistent with Vermont Yankee’s response to RFI request 3(x).</p> <p>2) NUREG-1575 Rev.1, “MULTI-AGENCY RADIATION SURVEY AND SITE INVESTIGATION MANUAL (MARSSIM),” U. S. Nuclear Regulatory Commission, U. S. Environmental Protection Agency, U. S. Department of Energy, and U. S. Department of Defense, August, 2000, <i>available at</i> www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1575. Vermont Yankee respectfully directs ANR to where it may be downloaded from the NRC’s website, rather than providing it in hard copy.</p> <p>3) Vermont Yankee Nuclear Power Station Operating Procedure OP 2106, Rev. 33: Oil and</p>

Hazardous Materials Spill Prevention and Control. Due to the confidential or otherwise sensitive nature of Vermont Yankee's internal policies and procedures, Vermont Yankee does not enclose copies of them, but instead will make them available for ANR to inspect on-site upon request.

4) NEI 09-14 Rev 3, "GUIDELINE FOR THE MANAGEMENT OF UNDERGROUND AND PIPING INTEGRITY," Nuclear Energy Institute, April 2013, *available at* pbadupws.nrc.gov/docs/ML1313/ML13130A322.pdf. Vermont Yankee respectfully directs ANR to where it may be downloaded from the NRC's website, rather than providing it in hard copy.

5) SEP-UIP-VTY Rev 5, "VERMONT YANKEE UNDERGROUND COMPONENTS INSPECTION PLAN," Entergy Nuclear Engineering Programs, November, 2013. Due to the confidential or otherwise sensitive nature of Vermont Yankee's internal policies and procedures, Vermont Yankee does not enclose copies of them, but instead will make them available for ANR to inspect on-site upon request.

6) "UNDERGROUND STORAGE TANK CLOSURE AND SITE ASSESSMENT REQUIREMENTS," Vermont Agency of Natural Resources, Department of Environmental Conservation, Waste Management and Prevention Division, June, 2010. Because this document is authored by ANR and therefore already within its possession, Vermont Yankee does not enclose it.

7) "INVESTIGATION AND REMEDIATION OF CONTAMINATED PROPERTIES," Vermont Agency of Natural Resources, Department of Environmental Conservation, Waste Management and Prevention Division, April 5, 2012. Because this document is authored by ANR and therefore already within its possession, Vermont Yankee does not

	<p>enclose it.</p> <p>8) Phase 1 Environmental Site Assessment Reports of Properties Off-Site from Vermont Yankee Nuclear Power Station. Due to the confidential or otherwise sensitive nature of Vermont Yankee’s internal policies and procedures, Vermont Yankee does not enclose copies of them, but instead will make them available for ANR to inspect on-site upon request.</p>
<p>3(b). “A list of all employees interviewed by Entergy for the SAS, and either a transcript of the interview or a list of questions posed to each employee as requested in ANR – 2.”</p>	<p>Vermont Yankee interprets “SAS” as used in this request to refer to the non-radiological HSA attached to the SAS.</p> <p>Consistent with the NRC’s Safety Conscious Work Environment policy, and to encourage employees to raise concerns, it is Vermont Yankee’s policy and practice to protect the identity of employees raising nuclear, environmental, or industrial safety concerns. It would be inconsistent with these policies and practices to publicly identify by name the individuals interviewed to support preparation of the Radiological and Non-Radiological Historical Site Assessments. In lieu of providing the interviewees’ names, a list of their job titles as well as the list of standard interview questions are provided below.</p> <p>Interviewees:</p> <p>Former Senior Operations Training Instructor Former Probable Risk Assessment Engineer Former Senior Radiation Protection (RP) Technician Former Plant Health Physicist, RP Superintendent, and RP Support Supervisor Former Chemistry Manager Former Senior Plant Mechanic Former Senior System Engineer – Mechanical Former System Engineer – Balance of Plant Mechanical Current Senior Project Manager Former Maintenance Services Superintendent</p>

Former Environmental Scientist/Biologist
Former Mechanical Maintenance Technician
Former Chemistry and Health Physics Engineer
Former Welder (2)
Former Licensed Reactor Operator
Former Assistant Plant Manager/ Reactor
Engineer/Operations Supervisor/Planning,
Scheduling & Outage Manger
Former Senior Environmental Specialist

**Interviews consisted of the following
information/questions:**

Date of Interview

Name of Interviewee

Name of Interviewer

1. What is/was your job title/position?
2. During what span of years have you worked or did you work at this site?
3. How many years have/did you work with radioactive materials, petroleum products, and/or chemicals?
4. Can you identify any locations/areas/buildings of known use or storage of radioactive materials, petroleum products or chemicals that are now used for something else?
5. Did your standard operating procedures address disposal of radioactive materials or waste? Are you aware of any disposal or incineration of radioactive material onsite or if radioactive waste was transferred to an industrial landfill as non-radioactive trash?
6. Describe what would happen if radioactive, petroleum products or chemical incident occurred. Whom would you tell? What special procedures would have been implemented?

	<p>7. Do you recall any instance of broken or leaking tanks, pipes or any other contamination incidents or accidents?</p> <p>8. Are you aware of any studies/reports that may have identified contaminated areas on or off-site?</p> <p>9. Are you aware of any chemical use/storage/spills/releases involving any type of solvents or fuels?</p> <p>10. Are there any other individuals you feel should be interviewed regarding any of the above items?</p> <p>11. What areas would you concentrate on if you were conducting a radiological or non-radiological close out survey of the site?</p> <p>12. Are you aware or have you heard of any area or areas outside the protected area where radioactive material or non-radioactive chemicals were used, stored, or disposed of?</p> <p>13. Can you think of anything else that needs to be addressed during the decommissioning process?</p> <p>14. Additional notes and comments:</p>
<p>3(c). “A detailed description of Entergy’s process for further characterization of potentially impacted areas as requested in ANR – 3.”</p>	<p>Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.</p>
<p>3(d). “A closure plan that identifies how Entergy will implement generator closure of the Site in accordance with the requirements for non-radiological materials in VHWMR § 7-309(c), as requested in ANR – 4. . . .”</p>	<p>Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.</p>
<p>3(e). “The process to be used to obtain or</p>	<p>At the time of additional characterization,</p>

<p>update additional information in Entergy’s Non-Radiological Historic Site Assessment, and how the State and members of the public will be notified and consulted of such changes, as requested in ANR – 6.”</p>	<p>Vermont Yankee will assess the results of the characterization samples/surveys and determine if the data collected during the characterization efforts warrants publishing a revision to the Non-Radiological HSA. Vermont Yankee will update the Non-Radiological HSA at its sole discretion and is not committing to any fixed periodicity for the updates. When it determines that an update to the Non-Radiological HSA is appropriate, Vermont Yankee anticipates the process will include providing a draft preview of the Non-Radiological HSA to ANR prior to making the revised document available to the public on the vydecommissioning.com website.</p>
<p>3(f). “A detailed description of the need for any further investigation of soils that have been or may be impacted by petroleum identified during the 2010 tritium release investigation, and include the justification for the conclusion, as requested in ANR – 7.”</p>	<p>Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.</p>
<p>3(g). “A work plan for identification and management of lead waste identified on the Site (including such wastes resulting from any abatement activities) as requested in ANR – 8, to include specific sources of actual or suspected lead contamination, and ultimate disposition of any lead waste encountered on Site.”</p>	<p>Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.</p>
<p>3(h). “A work plan for identification and management of PCB contamination or waste identified on the Site, to include management of any PCBs in wire sheathing, caulking, paints, or other materials, as requested in ANR – 9.”</p>	<p>Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.</p>
<p>3(i). “A work plan for additional investigation and necessary remedial work at the area where there was a release from a 5,000-gallon fuel oil underground storage tank (UST), and where petroleum constituents may remain (Sites No. 99-2617), as requested in ANR – 11.”</p>	<p>Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.</p>

<p>3(j). “A work plan for further sampling at and around the oil-water separator(s) on the Site to ensure that the separators do not contribute to the contamination of surrounding soils or other environmental media, as requested in ANR – 12.”</p>	<p>Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.</p>
<p>3(k). “A work plan for additional investigation to determine whether any residuals or contaminants of concern (including PCBs and PFOAs) remain on Site as a result of fire-fighting foam application, as requested in ANR – 13 and ANR – 26.”</p>	<p>Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.</p>
<p>3(l). “Information clarifying which 2003 leak is referenced in Section 1.5 of the SAS (whereby impacted soils may remain), and if any additional non-radiological remediation is needed at or around this location, as requested in ANR –14.”</p>	<p>Section 1.5 of the SAS includes a subsection entitled “<u>Main, Spare Main, Auxiliary, and Auto Transformers</u>” (pp. 16-17). The 2003 event described in this section occurred in the Auto Transformer located in the 345 KV switchyard. The Non-Radiological HSA discusses this event on Page 9 where it is stated, “A leak in the Auto transformer occurred in 2003. The spill was remediated by excavation and removal of approximately 25 cubic yards of impacted soil. However, inaccessible impacted soil may remain beneath the concrete pad on which the Auto transformer sits.” The 345 KV transformer yard was sold to Vermont Electric Power Co. (“VELCO”) in May 2009 and the equipment in the yard (including the Auto transformer) remains in service as part of the 99 year lease agreement between Vermont Yankee and VELCO. Detailed characterization will be performed in this portion of the site when VELCO removes the 345 KV switchyard from service permanently.</p>
<p>3(m). “A detailed description of the historical purpose and use of the Site chemistry laboratory, including what activities, testing, and analytical methods were conducted in the lab; and what materials and chemicals were used or managed in the lab, as requested in ANR – 15.”</p>	<p>The site Chemistry laboratory has been used to analyze process fluids from various plant systems. The primary analysis method used is ion chromatography, which uses small amounts of base or weak organic acid as eluent to release analytes from the stationary phase. Analysis of various process streams for metals, both soluble and insoluble, has been conducted by inductively-coupled plasma optical emission</p>

	<p>spectroscopy, which uses an acid matrix to digest and process the sample. The last major analysis type performed in the chemistry lab is boron measurement via a titration methodology using base and mannitol. Wastes from all these analyses are put into the plant liquid radiological waste system for processing. Radiochemical detection of gamma-emitting isotopes is performed on the water samples collected without use of any chemical additives, and therefore the samples themselves go into the waste stream after analysis. Radiochemical detection of beta-emitting isotopes uses a cocktail that is disposed of in solid waste after analysis and is not put into the liquid waste stream.</p> <p>Various other chemicals are used in small quantities for investigational purposes or new methods development and do not constitute a significant portion of the normal waste from the chemistry lab. There are no chemicals currently in use that contain preservatives that contain mercury or other toxins. Given that the sample matrix for almost all samples analyzed by our technicians is water of varying degrees of purity, no chemicals that are toxic and susceptible to bioaccumulation are needed for analytical purposes. Only water and water-soluble chemicals are disposed of through the chemical lab liquids waste stream for processing and reuse in plant systems.</p>
<p>3(n). “A detailed description of the timing and scope of further investigation of the chemistry laboratory’s leaking sink drain, to include a list of the non-radiological contaminants and chemicals that will be sampled or analyzed for, as requested in ANR – 16.”</p>	<p>Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.</p>
<p>3(o). “A work plan for investigation and remediation of any releases from operations conducted in the Former Edson’s Gulf garage (Sites No. 93-1485) once the garage is no longer used for maintenance activities, as</p>	<p>Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of</p>

requested in ANR – 17. ”	Vermont.
3(p). “Clarification of what is meant by ‘contaminated materials’ and ‘release criteria’ in Section 3.2.3 of the SAS, as requested in ANR – 19. ”	The terms “contaminated materials” and “release criteria,” as quoted in Request No. 3(p) of the RFI and in ANR Comments on Vermont Yankee Vermont Yankee Site Assessment Study dated December 2014 (ANR-19), do not appear in Section 3.2.3 of the Site Assessment Study. However, as used in other sections of the Site Assessment Study, these terms are intended to refer, respectively, to radiologically contaminated materials and radiological release criteria. For example, both terms appear in Section 3.2.4 of the SAS in regards to the removal and disposal of plant components of which the majority of components in the Radiologically Controlled Area are considered potentially contaminated but can be surveyed for unrestricted release from radiological controls. Examples of these types of materials would be electrical breakers and control cabinets.
3(q). “A work plan for investigation of areas that contain non-radiological hazardous materials (e.g., oil reservoirs, battery storage areas, aboveground storage tanks, and other systems) that are abandoned during the decommissioning process for possible releases, to include a plan for sampling and analyses to identify areas that will require further characterization, as requested in ANR – 20. ”	Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.
3(r). “A detailed description of further non-radiological site characterization and remediation activities that will be necessary based on the designated future use of the Site, as requested in ANR – 22. ”	Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.
3(s). “A work plan for additional investigation and necessary remedial work at the area where the former dry cleaner operated at the facility, including characterization and remediation of any contaminated soils and groundwater that was impacted by perchloroethylene released	Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.

from this dry cleaning operation, as requested in ANR – 23. ”	
3(t). “A work plan for the additional investigation of all manholes (MH-A, MH-B, and MH-C) and oil/water separators for releases of TPH and PCBs, to include all work activities to be performed, as requested in ANR – 24. ”	Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.
3(u). “A work plan for additional investigation and remediation of all soils contaminated with TPH, as requested in ANR – 28. ”	Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.
3(v). “A work plan for additional characterization of the dry well and hydraulic lift cylinder during removal of the Former Edson’s Gulf (Site No. 93-1485) to including all work activities to be performed, and associated timelines, as requested in ANR – 29. ”	Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.
3(w). “A work plan for additional non-radiological investigation and remediation of any areas of concern referenced in the ECS 2001 Report that are not specifically addressed in the SAS, as requested in ANR – 30. ”	Vermont Yankee cannot provide a response to this item until other information becomes available, including the development of site restoration standards, which have not yet been negotiated by Vermont Yankee and the State of Vermont.
3(x). “Copies of the Appendices from the ECS 2001 Report, including Appendix S Lab Results, as requested in ANR – 31. ”	See Enclosures. Vermont Yankee in this response has limited its production to those Appendices which pertain to non-radiological matters. Thus, for example, Vermont Yankee does not provide Appendix S of the ECS 2001 Report, which is entitled “Laboratory Results of Radiological Analyses.” If Appendix S is still required as part of your review, a copy will be provided upon request.