

STATE OF VERMONT
PUBLIC SERVICE BOARD

Petition of Entergy Nuclear Vermont Yankee,)
LLC, and Entergy Nuclear Operations, Inc., For a) Docket No. 8300
Certificate of Public Good Pursuant to 30 V.S.A.)
§ 248 and 10 V.S.A. § 6522 to Construct a Second)
Independent Spent Fuel Storage Installation)
("ISFSI") at the Vermont Yankee Nuclear Power)
Station)
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PREFILED SURREBUTTAL TESTIMONY OF STEVE SIMOES

On Behalf of the Vermont Agency of Natural Resources, Department of Environmental
Conservation, Hazardous Waste Management Program

Summary of Testimony

Mr. Simoes' testimony responds to the testimony of Entergy witness George Thomas regarding management of the North Warehouse building and waste-oil burner as low-level mixed waste under the Mixed Waste Rule. Additionally, Mr. Simoes addresses Mr. Thomas' Prefiled Rebuttal Testimony regarding sheathing on underground cables on the ENVY site. This testimony supplements Mr. Simoes' Pre-filed Direct Testimony filed in this proceeding.

1 **Q1. Please state your name.**

2 A1. My name is Steve Simoes.

3

4 **Q2. Have you previous testified in this docket?**

5 A2. Yes. I have submitted Prefiled Direct Testimony in this proceeding.

6

7 **Q3. What is the purpose of your testimony?**

8 A3. My testimony addresses and responds to recent information from Entergy witness George
9 Thomas regarding Entergy's management of the North Warehouse building materials and
10 structural components and the used oil waste burner as radioactively contaminated low-
11 level mixed waste (LLMW) under the Nuclear Regulatory Commission's Mixed Waste
12 Rule.

13

14 **Q4. Entergy has recently indicated that it plans to manage, transport, and dispose of the**
15 **North Warehouse and the waste-oil burner as low-level mixed waste under the**
16 **Environmental Protection Agency's "Mixed Waste Rule".**

17 **Are you familiar with the Mixed Waste Rule and its general requirements?**

18 A4. Yes. Though I am not a lawyer and cannot explain the legal aspects of the Mixed Waste
19 Rule, I am familiar with the requirements of the rule from a technical perspective as it
20 applies to my position and duties as Environmental Analyst VII with the Agency's
21 Hazardous Waste Program. The Mixed Waste Rule ("MWR") referenced in Mr.
22 Thomas' pre-filed rebuttal testimony refers to regulations codified in Subpart N of 40

1 CFR Part 266 (Storage, Treatment, Transportation and Disposal of Mixed Waste), which
2 are incorporated into Vermont's authorized RCRA hazardous waste program through
3 VHWMR § 7-109(b)(2).

4 The MWR provides increased flexibility to NRC-licensed facilities that generate, treat, or
5 handle low-level mixed waste (waste that is characterized as both low-level radioactive
6 waste and a RCRA hazardous waste) by exempting those facilities from RCRA
7 hazardous waste requirements provided they manage LLMW under NRC requirements
8 and meet certain conditions. More specifically, the MWR provides conditional
9 exemptions from RCRA requirements for the storage and treatment of, and transportation
10 and disposal of, eligible LLMW wastes.

11 The exemption for storage and treatment of LLMW under the MWR allows the facility to
12 store and treat the waste in tanks or containers that comply with the requirements of the
13 facility's NRC license for storage and treatment of low-level radioactive waste provided
14 that specific conditions are met. Waste that is eligible to be managed under the storage
15 and treatment exemption is LLMW that is generated and managed under a single NRC
16 license, and that is managed in accordance with the conditions in 40 C.F.R. § 266.230 for
17 notification to the Agency of the facility's intent to claim the conditional exemption for
18 storage and treatment of eligible LLMW stored on the facility site, storage, treatment,
19 certification for personnel training, inventory, and emergency planning requirements.

20 The exemption for transportation and disposal of LLMW under the MWR allows the
21 waste to be transported and disposed under MWR transportation and disposal

1 requirements. Waste that is eligible to be managed under this exemption is LLMW that
2 meets waste acceptance criteria of a Low Level Radioactive Waste Disposal Facility
3 (LLRWDF). As conditions of the exemption, the waste must also meet or be treated to
4 meet applicable Land Disposal Restriction (LDR) treatment standards, which are
5 identified in Subpart D of 40 C.F.R. Part 268, and incorporated into the VHWMR
6 through § 7-106. Additionally, the facility must manifest and transport the waste in
7 accordance with the NRC regulations, and the waste must be disposed of at a LLRWDF.
8 Like the MWR storage and treatment exemption, the facility is required to notify the
9 Agency of the facility's intent to claim the conditional exemption for transportation and
10 disposal of LLMW stored on the facility site. The facility is also required to notify the
11 destination LLRWDF of each shipment of waste sent for disposal prior to the shipment.

12 Also of note, the MWR requires that a facility intending to comply with either of the
13 conditional exemptions also maintain records to demonstrate compliance with the
14 conditions of the exemption(s), and notify the Agency of any noncompliance with any
15 applicable condition.

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20 **Q5. How is the Mixed Waste Rule administered in Vermont?**

21 A5. The Vermont Agency of Natural Resources and the Vermont Department of Health share
22 regulatory authority over aspects of radiological mixed waste in Vermont. Vermont is

1 authorized to administer the federal RCRA program, which includes the MWR (Subpart
2 N of 40 CFR Part 266) incorporated in its entirety through VHWMR at § 7-109(b)(2) and
3 § 7-203(f). In the case of Entergy's intention to manage LLMW under the MWR, the
4 Agency and Department have consulted and have confirmed that the Agency will
5 administer the applicable provisions of the MWR as a part of the State's federally
6 delegated RCRA program.

7 **Q6. Are there regulatory standards adopted in the VHWMR that are relevant to the**
8 **management of eligible LLMW under the MWR's conditional exemptions?**

9 A6. Yes. As a condition of the exemption outlined in 40 C.F.R. § 266.315, eligible LLMW
10 transported or disposed of under the MWR must meet or be treated to meet applicable
11 LDR treatment standards. In Vermont, the LDR, including the LDR treatment standards,
12 has been incorporated into the State's hazardous waste program through VHWMR § 7-
13 106. In determining which LDR treatment standards apply to the LLMW, the generator
14 of the waste must characterize the non-radiological hazardous waste component of the
15 LLMW. If any treatment standards do apply to the non-radiological hazardous waste
16 component, the exemption condition requires that the LLMW meet the standard or be
17 treated to meet the standard prior to the waste being disposed at a LLRWDF.

1 Additionally, facilities claiming either the storage and treatment exemption or the
2 transportation and disposal exemption are required to identify the RCRA hazardous waste
3 code(s) that would otherwise apply to the wastes, in accordance with VHWMR § 7-
4 109(b)(2) and the federal regulation. The RCRA hazardous waste codes that the facility
5 would be required to refer to are specified in Subchapter 2 of the VHWMR.

6
7 **Q7. What are the requirements for notifying the State of compliance with the**
8 **conditional exemptions of the Mixed Waste Rule?**

9 A7. Basically, the requirements for notification for claiming the MWR storage and treatment
10 exemption are outlined in 40 C.F.R. § 266.230, which is incorporated by reference
11 through VHWMR § 7-109(b)(2). Notification must include specific information about
12 the facility, and the hazardous waste code(s) and the specific storage unit(s) for which the
13 facility seeks the exemption. The notification must be made within 90 days of when a
14 storage unit is first used to store exempt LLMW.

15 Similarly, a facility claiming the transportation and disposal exemption under the MWR
16 is required to notify the Agency prior to the first initial shipment of exempted LLMW in
17 accordance with 40 C.F.R. § 266.345(a), which is incorporated by reference through
18 VHWMR § 7-109(b)(2). Notification must also be made to the LLRWDF that will
19 receive the waste for disposal, and must include certain information, such as a statement
20 that the eligible waste meets applicable LDR treatment standards and the RCRA
21 hazardous waste codes that apply to the waste (both as discussed above in A6), and the
22 manifest number of the shipment that will contain the exempted waste, in accordance

1 with 40 C.F.R. § 266.345(b), which is incorporated by reference through VHWMR § 7-
2 109(b)(2).

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4 **Q8. What are the consequences if the generator fails to satisfy any of the required**
5 **conditions for either exemption?**

6 A8. If the facility claiming either exemption under the MWR fails to comply with the
7 conditions required for that exemption, under the VHWMR at § 7-109(b)(2) and federal
8 regulation, the exemption from RCRA afforded by the MWR will no longer apply. This
9 means that the LLMW will then be subject to applicable provisions of the VHWMR as
10 non-radiological hazardous waste.

11
12 **Q9. To your knowledge, will ENVY be managing LLMW under the Mixed Waste Rule?**

13 A9. Yes. ENVY has indicated in rebuttal testimony that it plans to consider waste generated
14 by demolition of the North Warehouse and the waste oil burner as LLMW at the time of
15 disassembly, and will manage, transport, and dispose of that waste in accordance with the
16 provisions of the Mixed Waste Rule. See A10 of Prefiled Rebuttal Testimony of George
17 Thomas. I understand this to mean that ENVY intends to claim both the “storage and
18 treatment conditional exemption” as well as the “transportation and disposal conditional
19 exemption” of the MWR.

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1 **Q13. In your Pre-filed Direct Testimony, you raised concerns about sheathing on**
2 **underground cables on the ENVY site that may contain PCBs. Has this concern**
3 **been adequately addressed by ENVY?**

4 A13. Yes. Entergy has indicated that PCBs were in fact used in sheathing of certain types of
5 electrical cable during the period of construction of the ENVY Station, and that the
6 cables that will be removed from the Project Site will be stored on site in designated
7 containers until a waste determination has been made. See A15 of George Thomas'
8 Prefiled Rebuttal Testimony. This approach to excavation, removal, and characterization
9 of any sheathed cable is sufficient to address my initial concern. It should be noted that if
10 the cables are determined to contain PCBs over 50 parts per million, they will be subject
11 to regulation as hazardous waste under the VT01 hazardous waste listing specified in
12 VHWMR § 7-211. If Entergy decides to remove the PCB-contaminated sheathing prior
13 to shipping the cable off-site, ENVY would be subject to the applicable permitting
14 requirements specified under Subchapter 5 of the VHWMR.

15 **Q14. In your Pre-filed Direct Testimony, you recommend that the Board adopt conditions**
16 **requiring that representative sampling of the North Warehouse structure be**
17 **conducted prior to its demolition in order for ENVY to make a hazardous waste**
18 **determination of any demolition debris. Would you like to clarify your**
19 **recommendation at this time?**

20 A14. Yes. As stated above, Entergy has indicated that it will be managing the North
21 Warehouse structural materials and the waste-oil burner under the MWR. My
22 recommendation to the Board regarding the process for representative sampling for
23 purposes of performing a hazardous waste determination still applies to Entergy's

1 management of LLMW. For instance, as stated in my response to A6 of this testimony,
2 in order to comply with the MWR notification requirements, which require proper
3 hazardous waste coding and a statement that applicable LDR treatment standards are met
4 prior to shipping the mixed waste to a LLRWDF, Entergy will still be required to
5 characterize the non-radiological component of any eligible LLMW.

6 **Q15. Do you have any new or revised recommendations for conditions to be included in a**
7 **CPG issued for this Project?**

8 A15. Yes. In addition to the recommendations made in my Pre-filed Direct Testimony, as
9 modified by A13 and A14 above, the Board should include the following condition in
10 any CPG: If ENVY intends to store and/or treat eligible LLMW as part of the Project, it
11 shall comply with all applicable conditions of this exemption under the MWR.

12 **Q16. Does this conclude your testimony at this time?**

13 A16. Yes.