

STATE OF VERMONT
PUBLIC SERVICE BOARD

Investigation into (1) whether ENVY Nuclear Vermont)
Yankee, LLC, and ENVY Nuclear Operations, Inc.,)
(collectively, “ENVY VY”), should be required to cease) Docket No. 7600
operations at the Vermont Yankee Nuclear Power Station, or)
take other ameliorative actions, pending completion of repairs) March 2, 2011
to stop releases of radionuclides, radioactive materials, and,)
potentially, other non-radioactive materials into the environment;)
(2) whether good cause exists to modify or revoke the)
30 V.S.A. § 231 Certificate of Public Good issued to ENVY VY;)
and (3) whether any penalties should be imposed on ENVY VY for)
any identified violations of Vermont Statutes or Board orders related)
to the releases.)

NEW ENGLAND COALITION’S REPLY BRIEF

NOW COMES the New England Coalition, Inc. (“NEC”), by and through its attorney, Jared M. Margolis, and hereby submits the following Reply to Entergy’s Post-Hearing Brief and Proposal for Decision (“Entergy’s Brief”) in the above-captioned proceeding.

Entergy has done nothing more than provide the same tired arguments regarding preemption that are based on erroneous interpretations and obvious fabrications concerning the language and applicability of U.S. Supreme Court precedent regarding the jurisdiction of states over nuclear power plants. As was set forth in NEC’s prior Briefs, the Supreme Court specifically stated in *PG&E* that Congress:

intended that the federal government should regulate the radiological safety aspects involved in the construction and operation of a nuclear plant, but that States retain their traditional responsibilities in the field of regulating electrical utilities for determining questions of need, reliability, cost and other related state concerns.

PG&E at 205. The Board further made clear, in Docket 7082, that “[t]his dual regulatory scheme extends even to matters related to nuclear materials, notwithstanding the broad

preemption.” Petition of Entergy Nuclear Vermont Yankee, Docket 7082, Order of 4/26/06 at 16.

Entergy continues to argue that any Board action which has a “direct and substantial” effect on decision-making with respect to the VY Station’s construction and operations is preempted; however this is a flagrant misuse of the Court’s language from *General Electric*, wherein the Court stated that “state action will be preempted if it has a ‘direct and substantial effect on the decisions made by those who build or operate nuclear facilities concerning radiological safety levels,”” and Entergy has failed entirely to show that the requests for affirmative relief made by NEC (and others) would in any way involve radiological safety levels at the VY station. *General Electric* at 85 (emphasis added).

Furthermore, NEC finds it more than a little disconcerting that Entergy, on pages 15-16 of their Brief, suggests that all of the parties (except CLF) are in agreement with them regarding the *direct and substantial* language from *General Electric*; however Entergy provides only a portion of the language from NEC’s Preemption Brief, and fails to note the conclusion reached by NEC on page 17 of its Preemption Brief that “*General Electric* does not support Entergy’s argument that any Board action which has a “direct and substantial” effect on decision-making with respect to the VY Station’s construction and operations is preempted.” (emphasis added). Entergy continues to ignore the plain language from *General Electric*, wherein the Court made clear that NRC’s authority over radiological safety levels “does not include ‘every state law that in some remote way may affect the nuclear safety decisions made by those who build and run nuclear facilities....’” *General Electric* at 85 (citations omitted). Entergy’s weak attempt to make it seem as if other parties (including NEC) agree with their unfounded and misleading

interpretation of *General Electric* is entirely disingenuous, and their selective use of language from NEC's Preemption Brief is unconscionable.¹

It is readily apparent that *General Electric* does not support Entergy's contention, and the law remains that the Board retains jurisdiction over areas that are traditionally left to the states, including matters related to economic, land-use and reliability concerns. *See* Petition of Entergy Nuclear Vermont Yankee, Docket 7082, Order of 4/26/06 at 66 (citing *PG&E*, 461 U.S. at 205). Whereas the requests for relief put forth by NEC clearly relate to economic, land use, and reliability concerns, they are not preempted pursuant to established precedent, and the Board must not tolerate Entergy's attempts to eviscerate the important role that the Board plays in overseeing and regulating a leaky, poorly managed nuclear power plant in our state that has contaminated, and may be continuing to contaminate, the groundwater of Vermont – a public trust resource.

Moreover, the fact that the NRC has been involved in overseeing, at least to some degree, Entergy's response to the leak does not suggest that the NRC has preempted state involvement. This is in fact exemplified by the Vermont Department of Public Service and the Department of Health's continuing role in the leak investigation and remediation. If NRC felt that they had exclusive authority over these matters, then they would not need or allow these Vermont agencies continued oversight; however the fact that they are working along side of these state

¹ Entergy routinely uses only portions of language from cases and briefs that they claim supports their arguments – such as here with NEC's Brief and as with the Supreme Court's language from *General Electric*; however when the full extent of the matter is reviewed it becomes clear that they have cherry-picked language and ignored the aspects that not only disagree with their arguments, but which are integral to the full meaning of the statements being made. This is, at best, misleading and in some cases, such as with the statements on page 16 of their Brief wherein they claim that NEC is in agreement with their interpretation of *General Electric*, it is unconscionably in violation of their duty of candor towards the tribunal.

agencies suggests that the NRC does indeed agree that the State has dual jurisdiction over these matters and a role to play in overseeing the resolution of ongoing contamination at the VY station.

Additionally, it must be remembered that the NRC is not concerned with the economic or land-use related issues that are a fundamental basis for the relief requested by NEC. The NRC's concerns relate solely to radiological safety levels and radiologically affected human health matters, and not to the reestablishment of the site as a Greenfield for future use, or other economic and environmental concerns, which the state is clearly interested in, as shown by the Docket 6545 MOU requiring Entergy to clean up the site to Greenfield status. This is made apparent by the language provided in Entergy's Brief from the NRC investigation results, which states that the NRC "determined that Entergy appropriately evaluated the contaminated groundwater with respect to off-site effluent release limits and the resulting radiological impact to public health and safety." Entergy Brief at 6 (emphasis added). The State's concerns go beyond the radiological impacts to public health; however NRC involvement ends there.

This Board is well aware that the NRC has its role, as does the state of Vermont, and Entergy's attempts to deny the state the ability to act to protect the interests of Vermonters is chilling, and indicative of the lack of consideration they have for the concerns that many Vermonters (including the legislature and state agencies) have raised, and which this Board has the ability, and even the duty, to address. While it may be true that no violations of NRC requirements were identified, *Id.*, the language from the NRC investigation clearly shows that NRC's concerns end with radiological impacts to public health and safety from both plant operations and decommissioning.

Entergy has provided no statements from NRC, nor could they, regarding an assessment of non-radiological chemicals, environmental impacts, land-use impacts or increased decommissioning costs to attain Greenfield status – for the simple reason that NRC did not consider these matters, as they are not directly within NRC’s realm of concerns under the dual jurisdiction that the Supreme Court has repeatedly stated exists with regards to jurisdiction over nuclear power plants. Those are traditional State concerns, and they remain within the purview of this Board.

Regarding Entergy’s claims that there is no factual basis in the record for the relief requested, NEC believes that this is clearly not the case. There are factual claims made in Entergy’s Brief that are simply beyond belief, and which are unsupported by the record and misleading. Most obvious of these is at the very beginning of their Brief, wherein they claim that “the record evidence demonstrates that the leakage at issue in this docket consisted exclusively of low levels of radionuclides and was stopped by Entergy as of February 15.” Entergy Brief at 2. This statement is incredibly misleading, and is representative of Entergy’s continuing attempts to ignore reality. Let’s break this sentence down a bit:

First there is the almost laughable statement that the leakage consisted exclusively of low levels of radionuclides. This implies that no other non-radiological chemicals were included in this leak; however, that is absolutely not demonstrated by the record evidence, which actually shows that Entergy failed in any way to ensure that no non-radiological chemicals were emitted or spread by the leak incidents. They tested for non-radiological chemicals only one time, at one well, and then only for very specific chemicals that would need to be filtered out so that the

groundwater could be reused in plant systems.² They conducted no testing focused on identifying chemicals that could have already been in the AOG tunnel, and which could be harmful to the environment, such as PCBs, industrial coatings and lubricants, mercury, lead etc... They never conducted any testing on the debris blocking the AOG tunnel, the silt found in the tunnel, or at any of the sentinel wells (other than that one time) for non-radiological chemicals.³

To then claim that the record evidence demonstrates that the leakage was exclusively radiological defies reality. The only reason the record is exclusive to radiological contaminants is because Entergy refused to test for non-radiological chemicals, even though the very caption of the Docket suggests that the Board was interested in what non-radiological chemicals may have been included in the contamination.

Further, it is absolutely false that “every witness to testify on this issue stated that there was no non-radiological component of the leakage that occurred.” Entergy Brief at 12. The testimony merely indicates that none are known about, since no testing was done, but Entergy provided a list of chemicals that comprise a “library” of the constituents and isotopes that are “routinely found in condensate steam.” Hardy, Jan. 11 at 111-112; EN-JH-2. NEC notes that this list includes Chloride, Ammonium, Nitrate, Sulfate, Lithium and others – many of which are

² See part II(A) of NEC’s Proposed Findings of Fact and Brief.

³ NEC notes that Mr. Hardy claimed that construction of the AOG pipe tunnel was done using “normal construction materials,” which Entergy included as a proposed finding on page 25 of their Proposal for Decision; however it is completely unclear on what this statement was based. Mr. Hardy was not employed by Entergy in the 1970’s and has absolutely no idea what was done in that area during construction. In addition, PCBs, lead paints, mercury and industrial lubricants and cleansers are “normal construction materials” (or at last were in the 1970s), so it is unclear how this statement is in any way indicative of the absence of chemicals present in the AOG tunnel and which may have been spread by the leak. His statement is baseless, and is indicative of the lengths Entergy will go to stretch the truth and avoid any liability at all costs.

non-radiological chemicals that, according to Mr. Hardy, are routinely found in condensate steam, and which could harm the environment; however Entergy has not tested the monitoring wells for their presence.

In addition, Mr. Shadis provided testimony with respect to his experience at Maine Yankee, suggesting that non-radiological chemicals, including mercury-laden paints, pcb-laden lubricants, and lead-based paints, may be present on these sites (Maine Yankee and Vermont Yankee being of the same vintage) and which may have been spread by these leaks. Entergy seems willing to rely only on routine sample testing of condensate steam, rather than a thorough and complete analysis of the actual soil and groundwater at the site. As Mr. Hardy indicated, Entergy could have tested for these other contaminants;⁴ they simply chose not to, and the Board and parties are left to wonder what additional contamination may have been spread by this leak over the last few years.

Entergy's statement on page 2 of their Brief also implies that only low levels of radionuclides were leaked into the environment, however this too is entirely misleading. Tritium levels were found in the range of 2-3 million pci/l, which is several times more than the amount the EPA considers an issue for drinking water, and much higher than the NRC reporting requirements. This was not just some small confined leak – this was a release of very high concentrations of radionuclides over a rather large area, and which could have been going on for several years prior to discovery – even though sinkholes in the area should have put Entergy on alert to the presence of a problem. Furthermore, other radionuclides besides tritium were spread by the leak, and while Entergy may want to downplay the amount of such radionuclides, cesium

⁴ Hardy, Jan. 11 at 191.

and strontium are no small concern, and “any exposure above background radiation poses some health risk.” Tkatch, Jan. 11 at 84.⁵

Moreover, page 2 of Entergy’s Brief states that the release of contaminants was stopped by Entergy as of February 15, 2010. NEC agrees that the release of contaminants from the identified leak sources may have been stopped; however it remains unknown whether other sources of contamination exist, and the fact that tritium concentrations are now being found in additional wells, more than a year after Entergy supposedly resolved these leaks, suggests that other sources may be as of yet unresolved. It is therefore clear that Entergy has attempted in its brief to ignore ongoing concerns, and to provide nothing more than the same deceptive and deluded arguments that they have now become infamous for, and which have resulted in a total lack of confidence in Entergy amongst Vermonters.

What is perhaps the most alarming concern that NEC has after reviewing Entergy’s Brief is that they continue to suggest that we – Vermont – should just trust them, and that their good intentions, empty promises and confused Corrective Actions based on a faulty extent of condition review will protect this State against future contamination. Their position is as unbalanced as their preposterous Root Cause Evaluation, which unbelievably states that the holes in the pipes – without which no contaminants would have leaked into the AOG tunnel, and the cause of which is not only unverified but may be occurring elsewhere in the plant as we speak –

⁵ Further, Entergy did not see fit to continue sampling and analysis of Cesium, Strontium and other detected fission products down to the floor of the excavated trench, they claim, out of worker safety concerns, even though common sense would suggest that samples could readily have been retrieved at the end of a staff or wand.

were somehow not a root cause of the event, and therefore the extent of condition review did not need to address where else such holes may be occurring.⁶

As set forth in NEC's Proposed Findings of Fact and Brief, during the hearings Entergy witnesses only provided evasive answers and options they may consider, rather than specific actions that will be taken to protect us from the next leak, and the next one and the next one as the plant ages and the state of repair of pipes continues to decline. This evasiveness is also apparent in their Proposal for Decision. For example, Finding 101 on page 36 of Entergy's Proposal for Decision states that "Although NEI 09-14 does not require completion of implementation before the end of 2013, Entergy VY intends to finish on or before industry deadlines and to complete the required actions in an expeditious manner." (Emphasis added). Note that they are not making any promises here, and are merely stating that it is their intent to complete the program expeditiously (whatever that means); yet they are not even pledging to complete the NEI 09-14 initiative prior to the 2013 required deadline, but only intend to complete it by that date (i.e. "on or before"). Apparently Entergy believes that an intention to actually complete implementation by the required deadline is enough to be an industry leader. NEC does not agree, and the Board cannot be satisfied with these empty promises.

Even Entergy's understanding of the term "reliability" is confused and misleading. Entergy states that "the tritium investigation did not impact the electrical power production of Vermont Yankee," as if that should be reassuring to the Board. Entergy Brief at 9 (quoting Mr. Vanags). The very fact that they keep crowing about their "reliability" – measured only by how many days they run the plant, even while it contaminates our groundwater – should be a cause of concern, since it is readily apparent that despite continuing contamination and repeated mishaps,

⁶ See NEC Proposed Findings of Fact and Brief at parts II(A) and III(B).

their interest is pushing the plant to operate, while delaying repairs and ignoring physical condition concerns, all to increase their profits.

When the leaks that lead to this docket were first made public, Attorney Marshall stated that Entergy “gets it,” but their actions suggest that this was nothing more than double talk and an attempt to smooth over some rather serious failures and oversights that have lead us down this path. This Board has no reason whatsoever to trust Entergy. They have made that abundantly clear. If Entergy truly believes that the Board has no authority due to preemption, then why should the Board trust that they have been forthcoming with all pertinent information? If their intent, as has been made public, is to ignore Vermont’s ability to decide whether the plant should receive a CPG for continued operation – even though they previously agreed that they would not seek to continue operation without a CPG – and when it is clear that they are testing those waters here by arguing that the Board has no authority, even to levy sanctions for potential violations of Vermont law and Board orders, then what impetus do they have to be straightforward regarding the facts of the matter at hand, or the true ramifications of the potentially ongoing leaks?

Entergy’s almost total disregard for the concerns of Vermont and the authority of this Board is nothing less than insulting. For example, even though the caption of this docket specifically states that this matter concerns the release of both radioactive and non-radioactive materials into the environment, Entergy failed entirely to test for the presence of non-radiological chemicals in the material blocking the AOG drain, as well as at the monitoring wells, thereby completely ignoring a potential harm to the environment. It is as if they did not bother to even read the caption of the case, or else feel that the concerns raised by the parties and the Board are not worth their time and effort, since they don’t believe the State should have a say in regulating

a corporation operating in our State that has the potential to cause catastrophic harm to our environment and economic interests.

A further example of this disregard and disrespect can be seen with regards to their testimony concerning decommissioning costs. While the Board made it abundantly clear that they have concerns regarding the effects these leaks may have on decommissioning, stating even that “[i]t appears indisputable that the leaks may result in increased site contamination that could substantially increase decommissioning costs,” and that “[t]hese concerns do not fall within the preempted sphere of radiological health,” *Investigation into Entergy Nuclear Vermont Yankee*, Docket 7600, Order of 2/25/2010 at 8, Entergy failed to provide an updated cost estimate from a professional or reliable source, and merely submitted the statements of Mr. Mitchell who admitted on the stand that he is not an expert on decommissioning. Mitchell, Jan. 12 at 61-3.

While the objectivity of TLG is certainly in question, they at least have the ability to provide some semblance of credibility – since they actually undertake professional decommissioning cost estimates – however Entergy somehow thought it acceptable to provide the unsupported statements of an internal, upper-level management company spokesperson with no expertise on the issue, rather than provide any real evidence. NEC finds that insulting, and the Board has made it clear that Vermont expects more from Entergy than such empty and meaningless statements.

Mr. Mitchell’s totally unsupported and inexpert claims are indeed belied by the expert testimony of Mr. Shadis, whose experience in these matters is beyond question. As is set forth in NEC’s Initial Brief, Mr. Shadis has made it clear exactly how this event may increase decommissioning costs (from extended site survey and/or removal of potentially contaminated

soil), and how the experience at Maine Yankee suggests that the contamination may not just disappear as Entergy claims.⁷ In fact, it appears that Entergy's tactic regarding Mr. Shadis is to simply pretend that his testimony does not exist; however as the Board is well aware Mr. Shadis has extensive experience with these matters, and he is the one who has, for many years now, provided this Board with accurate, and rarely controverted,⁸ information regarding Entergy's unreliability – and the many equipment and structure failure events of Entergy's tenure at Vermont Yankee have vindicated NEC's position and concerns.

As an example, Entergy claims that the only witness to provide testimony on the land-use issue was Mr. Vanags, Entergy Brief at 11,⁹ however this ignores the testimony provided by Mr. Shadis, which discussed the fact that tritium contamination, with an isotope half-life of 12.3 years, is not a short term issue. Maine Yankee has been fully decommissioned to a 20,000 pCi/L standard for more than five years with its most recent operation more than thirteen years ago; yet a recent sampling of an onsite monitoring well showed in excess of 30,000pCi/L. This provides

⁷ Mr. Shadis provided the Board with a copy of a NRC Staff Requirements Memorandum-SECY-09-0042 (NEC-RS-5a) which clearly points out NRC's developing concern regarding subsurface residual radioactivity to "reduce the likelihood that any operating facility will become a legacy site." Entergy appears to dismiss this concern with the bold and unsupported assertion that tritiated water does not remain in the soil and simply disappears, while all other radionuclides do not migrate. The experience at Maine Yankee confirms that this is not the case. *See* Shadis Dec. 3 Pf. At 3; Exh. NEC-RS-6 (elevated levels at Maine Yankee 13 years after cessation of operations). These assertions would certainly be convenient to Entergy's claim that the leaks have been bounded and no lasting harm has been done, if only they were true. As evidenced in the above-referenced SECY paper and in Exhibit NEC-RS-6 (2009 Report to the Maine Legislature), and in NEC-RS 7/a,b,c,d,e (EPA Memoranda and Comments), residual tritiated water contamination [physically, organically or chemically] bound in soil; migrating radionuclides (including fission products, activation products, and transuranics) that result from plant operation; and non-radiological chemicals that result from plant construction and/or operation are of significant concern and may be cost drivers in decommissioning.

⁸ In fact, the testimony of Mr. Shadis during the technical hearings in this Docket, including confirmation of his prefiled testimony, remains entirely unchallenged and uncontroverted.

⁹ It is somewhat telling that Entergy, by this statement, is admitting that they provided no testimony on the issue of land-use, thereby failing to meet their burden in this docket.

clear evidence that tritium can cause long-term land-use related issues, and Entergy's failure to address these concerns in their Brief is indicative of their lack of any plausible response.

NEC continues to urge the Board to exercise caution, and not allow Entergy to scramble out of their responsibility. It is more than abundantly clear that Entergy will do whatever it can to avoid funding the decommissioning of the plant in any way. If Entergy is able to put off a meaningful analysis of the costs to actually deal with these leaks upon decommissioning the plant, then it has every impetus to do so, since Entergy has made it clear that they want to sell the plant and stick someone else (perhaps Vermonters) with this bill.

The testimony provided by Entergy, and their paltry Brief that ignores the evidence in the record and glosses over their complete failure to test for non-radiological contamination and to assess the environmental consequences of the leaks – as well as providing no reliable evidence regarding the potential effects on decommissioning costs – shows that Entergy simply does not get it.

Entergy concludes their Brief by repeating their contentions that anything and everything is preempted in this matter. As has been discussed previously, Entergy's view of preemption is simply untenable. NEC has requested that the Board order Entergy to conduct a baseline assessment of the condition of buried, underground and hard to access piping at the VY station, and it remains unclear to NEC how this would in any way affect plant operations and radiological safety levels, as Entergy claims, especially since they admit that they have committed to do so, albeit on a totally unreasonable time-frame. A Board order speeding up this process to ensure that the economic and land-use related interests of Vermont are protected would not in any way interfere with NRC concerns related to radiological health and safety.

Entergy's claim that ordering them to place money in the decommissioning fund is preempted by NRC's exclusive jurisdiction over decommissioning is also unsupported and unjustified. Vermont has previously entered into agreements with Entergy to return the site to Greenfield status once operations cease, and this goes beyond the NRC's oversight regarding decommissioning. As Mr. Shadis explained in his testimony, if the leaks do result in additional costs at decommissioning – from extended site survey and/or removal of potentially contaminated soil – there exists the potential for default or diversion of funds from those allocated for the site to be restored to Greenfield status, or both. This would be consistent with Entergy VY's ongoing refusal to contribute any portion of its VY revenues to the decommissioning fund, and Vermont does indeed have the ability and the duty to protect our citizens from such circumstances.

Similarly, Entergy's claim that sanctioning Entergy for the leaks would amount to the State placing more restrictive regulations for radionuclide releases than those required by the NRC, and would therefore be preempted, illustrates Entergy's unreasonable position with regards to preemption. Entergy operates subject to state permits, including not only a CPG, but state wastewater and stormwater permits as well. To suggest that the State cannot in any way enforce these permits, or that sanctions would somehow affect plant operations and nuclear safety levels, is, quite frankly, absurd. Entergy is grasping at straws here, and argues that since the NRC has found that no federal requirements were violated by the leakage, there is no basis for sanctions; however they fail to understand (or accept) that the NRC oversight is limited, and

does not include violations of the Clean Water Act, as well as state pollution laws and Board orders that may have been violated.¹⁰

Apparently Entergy does not believe that the commitments made to the State have any validity whatsoever, and that Vermont should have no ability to even enforce the laws intended to protect the State's public trust resources from harm. NEC must ask: why would we want a company that takes such a hostile and unreasonable position with respect to its commitments to Vermont and the State's laws and interests operating a nuclear power plant in our State?¹¹ Are we to roll over and let Entergy do whatever they think appropriate – which has included ignoring sink holes that should have lead to discovery of the leaks years ago, continuing to operate while contamination is ongoing, failing to use means and methods to identify the sources in a timely manner (such as tracers and dyes), failing to adequately inspect the CST and buried pipes that may now be leaking, failing to test for non-radiological contamination, and now re-writing preemption jurisprudence in an attempt to remove our ability to provide oversight – NEC fails to see how or why that is appropriate, and asks that the Board grant NEC's requests for relief in order to protect Vermont from Entergy's continuing carelessness and contamination of our public trust resources, and the associated economic and land-use related costs to our State.

¹⁰ As ANR made very clear in their discovery responses, this matter has been referred to the AG's office, and it has yet to be determined whether Vermont law or Board orders have been violated by Entergy. This is something that will be addressed in a later phase of this Docket, and NEC only included it in their letter setting forth NEC's affirmative requests for relief with the understanding that the Board wanted all of the requests, including those to be determined in later phases of the Docket.

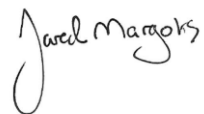
¹¹ This issue may be more specifically addressed in later phases of this Docket, concerning whether Entergy's existing CPG should be amended or revoked, as well as in Docket 7440 regarding the potential for continued operation of the plant after the current CPG expires.

Conclusion

For the foregoing reasons and those set forth in NEC's prior Briefs in this matter, the Board should find that they are not preempted from granting the requests for relief set forth by NEC (as further set forth in the Conclusion of NEC's Proposed Findings of Fact and Brief), and that ordering Entergy to comply with such requests is necessary to protect the economic and land-use related interests of the State of Vermont.

Dated at Jericho, Vermont this 2nd day of March, 2011.

New England Coalition, Inc.



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