## Rulemaking1CEm Resource

From: RulemakingComments Resource
Sent: Monday, November 25, 2013 10:35 AM

To: Rulemaking1CEm Resource

**Subject:** FW: followup to comments at hearing Nov. 14

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TITLE: Waste Confidence—Continued Storage of Spent Nuclear Fuel

**COMMENT#: 00090** 

**From:** Jane Dugdale [mailto:janesdugdale@gmail.com]

Sent: Wednesday, November 20, 2013 3:01 PM

**To:** RulemakingComments Resource

Subject: followup to comments at hearing Nov. 14

Secretary, U.S. Nuclear Regulatory Commission, ATTN: Rulemakings and Adjudications Staff

Washington, DC 20555-0001

Dear Secretary,

Thank you for the opportunity to speak at the hearing last week in Rockville, MD, on Thursday, November 14. Because of the three-minute limit, the comments I made were a shortened version of comments I had prepared. I would appreciate your considering the more detailed explanation of my concerns below:

- My name is Jane Dugdale. My husband and I live in Phoenixville, PA, within ten miles of Exelon's Limerick Generating Station. Three of our small grandchildren and their parents live with us. The children attend schools within the so-called Limerick evacuation zone. I am very concerned.
- The waste confidence statement in the draft environmental impact study under consideration should be rejected. It ignores numerous catastrophic risks to everyone in and far beyond our heavily populated region. The Alliance for a Clean Environment (ACE), has studied these risks for over a decade and found volumes of evidence for these risks. Ignoring these risks belies the NRC claim to have "confidence" about its nuclear waste.

- I will describe some of these risks, which can be studied in detail at <a href="www.acereport.org">www.acereport.org</a>. Unless credible answers can be found to our many questions, the waste confidence statement is simply sweeping these risks under the carpet and the NRC is recklessly endangering our communities. Unless you give the draft statement a vote of NO CONFIDENCE, the risks described below should make the NRC liable for regulatory mismanagement.
- Three of the worst risks at Limerick are, first, Limerick's use of "high-burn"nuclear fuel; second, its overcrowded, corroding and thinning fuel pools; and third, its above ground concrete cask storage system, not designed to last the length of time the wastes could be stored in them.
- First, regarding Limerick's use of "high-burn" nuclear fuel, evidence suggests its use is far more dangerous than fuel previously used at Limerick. Higher radioactive gas releases; increased corrosion, thinning, and brittleness of fuel cladding; increased radioactivity and decay heat from spent fuels; and increased damage to the fuel rods in the reactor vessels all these can result, leading to radiation leaks in the spent fuel pools and casks.
  - o The public has a right to full and accurate disclosure of the long-term consequences of using "high-burn" nuclear fuel.
  - o Requests by ACE for this information have gone unanswered. Specifically, ACE wants to know if the NRC has verifiable answers to the following questions:
    - When did Limerick start using this fuel?
    - When was Limerick's license amended to start using this fuel?
    - Does the NRC plan to continue allowing Limerick to use it, despite the increased risks to our region?
- Second, regarding Limerick's **overcrowded fuel pools**, these packed, vulnerable, thinning and corroding pools pose catastrophic risks to our heavily populated region, yet the NRC is failing to take adequate action for precaution. These pools, similar to the roof-top pools at Fukushima now threatening the world, are highly vulnerable to loss of water, meltdown, and fire.
  - Loss of water can be caused by earthquakes, terrorist planes, or missiles. As the world now knows, with loss of water, roof-top spent fuel rods will heat up, self-ignite, and burn in an unstoppable fire, causing tens of thousands of deaths up to 500 miles away. Why does the NRC fail to require Exelon to adequately guard against air strikes or missiles?
  - Limerick's two fuel pools, packed far beyond design basis, contain twice as much radioactive waste as the four Fukushima fuel pools, and far more than many other, older US nuclear plants. Why does Limerick have so much so-called "spent" fuel in its roof-top pools? Why does Limerick have more spent fuel than even older nuclear plants?
  - Limerick's fuel pools were constructed with substandard cement, according to a Limerick construction site engineer, and the plant sits on an earthquake fault. In addition, it is located within 17 miles of four other earthquake faults, but the NRC has allowed Exelon until 2017 to complete even an earthquake study. Why? Why has the NRC allowed Exelon to put off even studying the risks related to earthquakes, when the plant is #3 on the nation's earthquake risk list?
  - Limerick's fuel pool liners are corroding and thinning up to 10 times faster than estimated,
     according to an NRC Safety Evaluation. NRC staff told Exelon to immediately recoat the liners,

- but then the NRC caved in to Exelon's request to put off the recoating for a decade. Why? Why did the NRC not require immediate recoating?
- Why is the NRC allowing Limerick to transfer fuel rods from the fuel pools to dry storage casks after just 1-3 years, when the NRC literature states it is unsafe to remove them from the fuel pools for cask storage before five years?
- Third, regarding Limerick's **above ground concrete cask storage system**, this is a short term solution to a long term problem. There is no proof that spent fuel stored in dry steel containers inserted into these concrete casks can be safely removed or transported in the future. There is no place for it to go.
  - Steel Containers for spent fuel at Limerick are only expected to last 50 years. How can the NRC assure that the containers will be replaced after that, or before that, if they fail?
  - The steel rails holding the steel containers inside the casks are highly vulnerable to corrosion, likely rendering the containers they support virtually impossible to extract. Highly corrosive air from Limerick's massive cooling tower plume enters the vents of the cask system, according to its design. This plume is so corrosive it can crack steel within a year, according to an NRC recent safety evaluation. Why did the NRC deny this corrosion risk and stop its own 2005 study when corrosion concerns were identified?
  - Because Limerick's concrete casks have serious design flaws, including faulty concrete and undetectable corrosion. ACE expressed concerns to NRC and elected officials. Why were our concerns ignored?
  - o In spite of the risks it poses, cask storage on site is the least bad long term solution to waste containment, because removing and transporting the containers is much too dangerous.
    - Pennsylvania's degraded roads, rails, and bridges make accidents inevitable.
    - Extraordinary health, environmental, and financial risks on-site and along transportation routes are enormous and pose unacceptable risks in this densely populated region.
    - Finally, there is no place for it to go. There is no approved long-term storage facility.
- In conclusion, there can be NO CONFIDENCE that Limerick's nuclear wastes do not jeopardize our future. There is NO SAFE SOLUTION for deadly wastes that will remain dangerous and cause a huge financial burden on the public, virtually forever. How can a "waste confidence" statement be approved without answers to the above questions? The "confidence statement" must be rejected.
- Finally, we must stop making this deadly radioactive waste for which there is no safe solution. The NRC should move to re-purpose plants such as Limerick and encourage electricity generation by improving efficiency and investing in renewable sources of energy such as solar and wind.

For more information, contact Dr. Lewis Cuthbert, ACE President, <u>aceactivists@comcast.net.</u> Documentation for all issues except high-burn fuel are on NRC's public record from ACE in testimony for Limerick's Environmental Impact Statement.

Sincerely,

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