STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

APPLICATION OF DOMINION NUCLEAR
CONNECTICUT, INC. TO MODIFY SITING
COUNCIL CERTIFICATE (DOCKET NO.
265A) FOR THE EXISTING INDEPENDENT
SPENT FUEL STORAGE INSTALLATION
(IDRY STORAGE SYSTEM) AT MILLSTONE
[INUCLEAR] POWER STATION, ROPE
FERRY ROAD, WATERFORD,
CONNECTICUT

CONNECTICUT SITING COUNCIL

: FEBRUARY 28, 2013

PROPOSED FINDINGS OF FACT ON BEHALF OF CONNECTICUT COALITION AGAINST MILLSTONE AND NANCY BURTON

The intervenors Connecticut Coalition Against Millstone and Nancy Burton propose the following Findings of Fact:

- 1. Dominion has not completed what it already had approval for in 2004. In fact, Dominion has only completed two-fifths of what the Siting Council approved in terms of providing a facility for installing HSMs. Thus, although the Siting Council gave approval for installation of a single concrete pad large enough to accommodate 49 HSMs (Docket No. 265, Opinion, page 3, paragraph 3), to date Dominion has only completed installation of a concrete pad capable of supporting 20 HSMs. (Docket No. 265A, Application, page 7)
- 2. Dominion's "new fuel strategy" for Unit 2 is completely speculative. Dominion has yet to formulate or apply to the NRC for a license amendment to use a new fuel assembly design. See Transcript, December 20, 2012, pages 133-138. License amendment proceedings can take 18 to 24 months excluding intervention (Siting Council Docket No. 265 Finding of Fact #56) Accordingly, it is premature and completely speculative for Dominion to premise the present application upon a need to move more fuel assemblies to the ISFSI to accommodate the new fuel assembly design when its actual intent to do so is a mere abstract notion, with no steps having been taken to advance the concept... If Dominion does not apply for or does not obtain approval for the new fuel assembly design, its witness testified that it will not need the four extra storage containers for Unit 2 spent fuel contemplated in the application. (Transcript, December 20, 2012, page 138) Although Yucca Mountain was still under consideration as a presumed site for a permanent repository for spent fuel from nuclear power plants during proceedings in Docket No. 265, Yucca Mountain has since been officially abandoned by the Obama Administration. No alternative site has been selected nor has the laborious, challenging task of evaluating a potential site for suitability to safeguard the high-level radioactive waste for the untold centuries needed commenced. Lawsuits challenging the appropriateness of a particular site are inevitable. The Department of Energy's Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste (January 2013), states at page 2: "With appropriate authorizations from Congress, the Administration currently plans to implement a program over the next 10 years that: . . . makes demonstrable progress on the siting and characterization of repository sites to facilitate the availability of a geologic repository by 2048." Thus, the Department of Energy's most current projection assumes that there will be no

p ermanent repository for the nation's spent nuclear fuel before 2048 - 35 years hence — a nd, at best, it assumes only that "progress" in that direction will be made by 2048. In the meantime, the 60-year period beyond the initial production of spent nuclear waste at Millstone and onsite storage which marks the theoretical boundary between "short-term" a nd "long-term" storage will have long passed: in the case of Millstone Unit 2, which went online in 1975, the 60-year point will have been crossed in 2035 and in the case of Millstone Unit 3, which went online in 1986, the 60-year point will have been crossed in 2046. With regard to Millstone Unit 1, which went online in 1970, the 60-year point will be crossed in 2030. Under accepted definitions, the Town of Waterford, Connecticut, will have become a *de facto* permanent high-level nuclear waste dump by the year 2030, a mere 17 years hence. Because the Siting Council conditioned its approval in Docket No. 265 on the surety that "Millstone [Nuclear] Power Station is not a permanent spent nuclear fuel storage site,"1[1] that condition will have been violated and the Council's approval in Docket No. 265 subject to revocation and nullification.

- 4. The concrete used as the primary building material of the concrete pad is highly susceptible to degradation by the elements and even the more so as Millstone is located on the marine coast. At one or more nuclear power plants in a coastal zone, the concrete is already showing signs of degradation. (Transcript, December 20, 2012); "Evaluation of the Technical basis for Extended Dry Storage and Transportation of Used Nuclear Fuel," December 2010, U.S. Nuclear Waste Technical Review Board. Dominion is sufficiently concerned about its own concrete pad degrading that it has taken the step, not originally contemplated, of painting a protective coating of sealant a pathetic, band-aid solution across the concrete pad., as a prophylactic measure to forestall cracking of the concrete which is completely exposed to the harsh, changing weather conditions of Millstone's marine surroundings.
- 5. The dry cask storage system in use at Millstone is certified by the U.S. Nuclear Regulatory Commission for a period of 20 years. (Siting Council Docket No. 265 Finding of Fact #32) The license for the storage system expires January 23, 2015. (Dominion witness, Transcript, January 29, 2013, page 86)
- 6. Delivery of a HSM takes approximately 12 to 18 months. (Siting Council Docket No. 265 Finding of Fact #33) However, Dominion is considering fabricating ISFSI components onsite to reduce delays in transport from the Virginia manufacturer. (Transcript, January 29, 2013, pages 21-22) Accordingly, the 12-to-18-month period projected in 2004 will be significantly reduced as a result and costs will be correspondingly reduced as well.
- 7. Millstone is located in a low-lying area on the shoreline of the Long Island Sound. Jordan Cove (Long Island Sound) is located 325 feet southeast of the ISFSI. (Siting Council Docket No. 265 Finding of Fact #70); a freshwater pond is located within 200 feet of the ISFSI. Millstone has been identified by a Stanford University researcher as among the four most vulnerable nuclear power plants to severe storm effects in the nation. (Burton Pre-Filed Testimony ¶ 16) The proposed modified dry cask storage facility is, at its lowest point, no more than 19 feet in elevation above sea level. (Burton Prefiled Testimony ¶5) The lowest elevation of the access road that would be used during fuel transfer to the ISFSI is 14 feet, 6 inches. (Dominion witness, Transcript, January 29, 2013, page 81)

- 8. Alternative siting at higher elevations is available. (Siting Council Docket No. 265 Finding of Facts ##60, 63-66) The facility could be better protected from storm and flooding events with a berm ("HOSS" hardened onsite storage). (Docket No. 265, Finding of Fact #60.)
- 9. Dominion identified 165 adjacent property owners, most single family residences. (Docket No. 265a Application, Tab 3. The nearest is located 1,700 feet northeast of the ISFSI. (Siting Council Docket No. 265 Finding of Fact #69)
 - 11.10. The FEMA flood map submitted by Dominion in support of Docket No. 265 Application has been updated as of January 17, 2012, its date of release. Intervenors' Exhibit 4. The updated FEMA map shows all of Millstone Units 1 and 2 in "Special Flood Hazard Areas" and shows a significant new "Special Flood Hazard Area" in close proximity to the ISFSI. The updated FEMA map also shows significant areas of the Long Island Sound (Jordan Cove) with "Velocity Increases" along virtually the entire Millstone Point southeastern shoreline just .057 of a mile downslope of the ISFSI. Sea levels are rising globally and the FEMA updated map shows this is the case at Millstone. Dominion omitted to bring the updated FEMA floodplain mapping to the attention of the Siting Council in Docket No. 265a. During the proceedings, Dominion's sole issue regarding the updated FEMA map was whether it included the ISFSI area within a 500-year floodplain. (Transcript, December 20, 2012, page 89, January 29, 2013, pages 69-70) Flooding leadi8ng to an air-flow blockage at an ISFSI site is considered an "emergency event" at a nuclear power plant by the NRC. ("NUREG-1536 provides that air-flow blockage is an accident condition. NUREG-1536 lists several natural phenomena events that should be evaluated, including "flood, tornado, earthquake, burial under debris, , lightning strike, seiche." Burton Pre-Filed Testimony, ¶ 27.
- 11. Connecticut has a surplus of electricity generation during the period of the Siting Council's most recent 10-year forecast (Docket F-2010/2011, Final Report issued September 8, 2011.) Together, Millstone Units 2 and 3 provide 25.8 per cent of the state's generating capacity. *Id.* at 22. Connecticut has sufficient generating capacity to meet the emergency requirement that reserves are available to compensate for the loss of Millstone Units 2 and 3 over the next decade. (Transcript, January 29, 2012, page 17)
- 12. During recent Superstorm Sandy on or about October 29, 2012, the Millstone site experienced a 9-foot storm surge, according to its own measurement. (Transcript, January 29, 2013, page 10). However, in a January 16, 2013 integrated inspection report, the NRC cited Dominion for its failure to maintain the ability to take adequate measurements to determine flood water levels at the site, **even as Superstorm Sandy was imminent.** (Transcript, January 29, 2013, pages 10-11) Dominion's failure was a violation of its licensing requirements. (Transcript, January 29, 2013, page 12) Dominion's witness trivialized the fact that Dominion had been cited by the NRC for a federal licensing violation that in the eyes of the NRC exposed the public to serious risk. (Transcript, January 29, 2013, pages 10-16)
- 13. During the past 16 months (prior to December 19, 2012), the region has experienced three 100-year storms with significant coastal infrastructure damage and lengthy periods without power. It has become clear that much of the state's coastal

infrastructure has been designed to an inadequate standard and cannot reliably sustain the type of storm damage that is becoming all too common. (Letter of Daniel C. Esty, Commissioner, DEEP, December 19, 2012) In the event of a station blackout, Millstone relies on its back-up generators to provide emergency electricity to operate critical safety systems. At Fukushima, the nuclear reactors lost power from the grid and the back-up generators were rendered inoperable by the severe flooding; these circumstances led inexorably to reactor core meltdowns, draining of the elevated spent fuel pools and releases of catastrophic amounts of radioactivity from the site.

- 14. A severe storm event in 2007 tore a 350-foot stretch off the shoreline of Millstone Point along Jordan Cove, causing such severe erosion that Dominion applied to then-DEP for an emergency authorization to repair the damage. Dominion neglected to submit information regarding this event to the Council although the severe event impacted an area .05 miles downslope of the ISFSI. (Transcript, December 20, 2012, pages 87-89)
- 15. It takes Dominion three to five years to plan and implement the ISFSI. (Testimony of Dominion witness, Transcript, January 29, 2013)
- 16. Dominion's application in Docket No. 265a does not address climate change and its potential impacts on the site, nor does it address flooding. (Transcript, December 20, 2012, page 96)
- 17. Extended ("permanent") storage is a term applied to storage of spent fuel beyond 60 years. (Transcript, December 20, 2012) The Siting Council agrees. See Docket No. 265, Finding of Fact #25 ("The ISFSI is neither a long term (defined as type of permanent disposal) storage site nor permanent repository for the storage of spent fuel." (Emphasis added.)

The Intervenors also incorporate by reference herein the Prefiled Testimony of Nancy Burton, as submitted and supplemented, and the facts, information and observation set forth in the Intervenors' Exhibits and the documents as to which the Intervenors requested the Council take administrative notice and as to which it did.

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CERTIFICATION

This is to certify that a copy of the foregoing was emailed to the following on February 28, 2013:

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^{1[1]} Docket No. 265, Decision and Order, page 1, condition 2.