

CONNECTICUT SITING COUNCIL

IN RE:

PROPOSAL OF DOMINION NUCLEAR
CONNECTICUT, INC. TO MODIFY THE
EXISTING MILLSTONE POWER STATION
TO ESTABLISH AN INDEPENDENT SPENT
FUEL STORAGE INSTALLATION (DRY
STORAGE SYSTEM) ON PROPERTY
LOCATED OFF ROPE FERRY ROAD IN
THE TOWN OF WATERFORD,
CONNECTICUT

DOCKET NO. 265

RECEIVED
MAR 22 2004

CONNECTICUT
SITING COUNCIL

MARCH 22, 2004

APPLICANT'S PROPOSED FINDINGS OF FACT

Introduction

1. On August 25, 2003, in accordance with Chapter 277A of the Connecticut General Statutes, as amended by Public Act 98-28, Dominion Nuclear Connecticut, Inc. (DNC or Applicant) submitted an application (Application) to the Connecticut Siting Council (Council) to modify the existing Millstone Power Station (Millstone) to establish an Independent Spent Fuel Storage Installation (ISFSI) on property located off Rope Ferry Road in Waterford, Connecticut. (DNC Exhibit (Exh.) 1).
2. Pursuant to the provisions of Conn. Gen. Stat. §§ 16-50l and 16-50x, DNC met with Town of Waterford officials beginning in August 2002 through December 2003 to discuss the benefits and technical merits of the proposed ISFSI. Because a portion of the Millstone property is located within 2,500 feet of the East Lyme municipal boundary, DNC's pre-application consultation process also included the Town of East Lyme. (DNC Exh. 3 & 6).
3. Pursuant to General Statutes § 16-50l(b), DNC published notice of the Application in The Day on August 21 and 22, 2003. (DNC Exh. 2).
4. Pursuant to General Statutes § 16-50m, the Council, after giving due notice thereof, held a public hearing on the Application on October 16, 2003 at 7:00 p.m. at the Waterford Town Hall Auditorium, 15 Rope Ferry Road, Waterford, Connecticut. Evidentiary hearings continued on December 15, 2003, January 7, 2004, January 20, 2004 and February 19, 2004. (Council Hearing Notice; 10/16/03 Transcript (Tr.) at 2; 12/15/03 Tr. at 3; 1/7/04 Tr. at 3; 1/20/04 Tr. at 3; 2/19/04 Tr. at 3).
5. On October 16, 2003, prior to the public hearing, the Council and its staff conducted a field review of the proposed ISFSI site located at the Millstone property off Rope Ferry Road in Waterford, Connecticut. (Council Hearing Notice).

6. Parties to this proceeding include DNC, the Town of Waterford (Town), Attorney General Richard Blumenthal (AG), the Southeastern Connecticut Council of Governments (SCCOG), the Connecticut Coalition Against Millstone (CCAM), and Milton C. Burton, William Honan, Clarence Reynolds and GERALYN COTE Winslow (collectively, the Coalition Parties).
7. The U.S. Nuclear Regulatory Commission (NRC) regulations authorize an NRC licensee, such as DNC, to develop and store spent nuclear fuel in an ISFSI, subject to specific requirements including the use of only NRC-certified dry storage systems, the storage of only spent fuel from the particular licensed facility and the installation of physical security measures around the ISFSI. State agencies, such as this Council, may not regulate the dry storage activities authorized by the NRC relative to radiological health and safety or impose siting standards in a manner that will frustrate or undermine NRC decisions related to the storage of spent nuclear fuel. (DNC Exh. 1, pp. 11-12; 12/15/03 Tr. at 4-6).
8. Consistent with the Council's jurisdiction, the scope of the proceeding was limited to the siting of the ISFSI at Millstone, specifically the public benefit of and the need for the ISFSI, its location and its potential impact on the environment. The proceeding did not address the current operations of the Millstone facility except as those operations directly relate to the ISFSI. (10/16/03 Tr. at 3; 12/15/03 Tr. at 6-7).
9. The ISFSI itself is not a facility as defined in Conn. Gen. Stat. § 16-50i(a). The installation of an ISFSI at Millstone, as described in the Application, constitutes a modification to the existing power generating facility pursuant to Conn. Gen. Stat. § 16-50k(a). (DNC Exh. 1, p. 2).

Background

10. Millstone is located on a 520-acre parcel south of Rope Ferry Road (Connecticut Route 156) in the southwest portion of the Town of Waterford, Connecticut (Property). The Property is bounded on the north by Rope Ferry Road (Connecticut Route 156), on the west by Niantic Bay, on the south by Long Island Sound and Jordan Cove, and on the east by Gardiner's Wood Road. The Property is traversed by an Amtrak rail line. (DNC Exh. 1, p. 6).
11. The Millstone power generating units, turbine buildings, and associated support buildings are located in the southernmost portion of the Property within a 49.3-acre area encompassed by security physical barriers and to which access is controlled (Protected Area). The Protected Area was established and is maintained in accordance with requirements established by the NRC. (DNC Exh. 1, p. 6; DNC Exh. 9 at 1).
12. Portions of the Property, outside of the Protected Area, are developed with employee parking areas, office and storage buildings, training facilities, an electric switchyard and a transmission line corridor extending from the switchyard to the north. In the northeast portion of the Property, DNC maintains baseball, soccer and football fields used by the Town. All remaining areas of the Property are maintained as open space. (DNC Exh. 1, p. 7).

13. Millstone Unit 1 permanently ceased operations in 1998. (DNC Exh. 1, p. 6; DNC Exh. 7 at 3). The current NRC operating licenses for Millstone Units 2 and 3 are scheduled to expire in 2015 and 2025, respectively. DNC applied for license renewal for both Units 2 and 3 on January 22, 2004. If the license renewals are granted, Unit 2's license period will be extended to 2035 and Unit 3's license period will be extended to 2045. (DNC Exh. 1, p. 10; DNC Exh. 18).

Spent Fuel Management

14. If, for some unplanned, yet potential reason, all of the fuel in one of the Millstone reactors would have to be removed at one time, the open space provided by maintaining full core reserve in the spent fuel pool is available to "de-fuel" the reactor. This open space also provides the operational flexibility to remove all fuel from the reactor during routine refueling outages. (DNC Exh. 7 at 2; DNC Exh. 14, Resp. No. 2; DNC Exh. 16, Resp. No. 19).
15. As a matter of practice, the Millstone Unit 3 reactor is completely de-fueled during each refueling outage (generally every 18 months) and the Unit 2 reactor is completely de-fueled at a historical frequency of about one out of every three refueling outages. Complete de-fueling is also essential for required inspections and/or maintenance. Maintaining full core reserve capability during the operating cycle of Units 2 and 3 further allows for some unexpected event that may require removal of all fuel from the reactor. (DNC Exh. 16, Resp. Nos. 19, 40; 1/7/04 Tr. at 206-07).
16. Currently, DNC stores spent fuel from each of the Millstone units in the respective spent fuel pool for that unit. The storage of spent fuel is incidental to the principal use of the Millstone property for the generation of electricity. The ISFSI is an alternative method of storing spent fuel incidental to and in support of Millstone's existing power generating operations and will not change the existing, principal use of the Millstone property. (DNC Exh. 1, p. 8; DNC Exh. 7 at 2-3).
17. A dry storage system would allow DNC to remove fuel from the Millstone spent fuel pools, thereby freeing space in the spent fuel pools to both accommodate spent fuel from more recent refuelings and to maintain full core reserve capability into the future. (DNC Exh. 1, p. 8).
18. The ISFSI is intended to be used for the interim storage of spent fuel at Millstone until the U.S. Department of Energy (DOE) fulfills its statutory and contractual obligations and accepts the fuel for permanent disposal. The ISFSI is not a permanent repository for the storage of spent fuel. (DNC Exh. 1, p. 8; DNC Exh. 5, Resp. No. 9).
19. The ISFSI site has been designed to be used in conjunction with the existing spent fuel pools and includes 85 horizontal storage modules (HSMs) to provide sufficient spent fuel storage to maintain full core reserve capability for Millstone Units 2 and 3 through the end of the units' license periods including license renewal, and, if necessary, 50 HSMs for the storage of spent fuel to support operational, regulatory or other contingencies in Units 1, 2 or 3 or changes in use of the shutdown Millstone Unit 1. (DNC Exh. 1, p. 10;

DNC Exh. 7 at 3; DNC Exh. 8 at 1-2; DNC Exh. 9 at 2; DNC Exh. 14, Resp. No. 5; 12/15/03 Tr. at 69-70, 79; 1/7/04 Tr. at 58, 194-95, 221-22).

Proposed Project

20. The Millstone ISFSI will be developed pursuant to a general license issued by the NRC and will use a dry storage system certified by the NRC. (DNC Exh. 5, Resp. No. 4; DNC Exh. 14, Resp. No. 1). Transnuclear's Standardized NUHOMS[®] (NUclear HOorizontal MOdular Storage) dry storage system, which has been selected for use at Millstone, has been approved and issued a Certificate of Compliance from the NRC. (DNC Exh. 1, pp. 9, 11-12; DNC Exh. 5, Resp. No. 7; DNC Exh. 11 at 1).
21. The Millstone ISFSI will consist of a series of reinforced concrete HSMs approximately 8'6" wide, 18'6" high (plus a 2'1" exhaust vent) and 20' long. In the center of each HSM is a hollow cylindrical sleeve within which a single welded, leak-tight, steel dry-shielded canister (DSC) is placed. Each DSC is capable of holding either pressurized water reactor spent fuel assemblies from Units 2 or 3 or boiling water reactor spent fuel assemblies from Unit 1. (DNC Exh. 1, p. 9, Attachment (Attach.) 5, Dwg.-10; DNC Exh. 11 at 2; DNC Exh. 16, Resp. No. 26; 12/15/03 Tr. at 144-45).
22. DNC's indirect parent company, Dominion Resources, Inc. (Dominion), owns and operates three nuclear power stations, which are Millstone, North Anna and Surry, in the United States. (DNC Exh. 1, p. 3). Dominion has a track record for taking advantage of technological changes and advances in dry storage technology that provide an operational benefit. (1/7/04 Tr. at 161-63). However, not all newly approved dry storage systems will necessarily be compatible with Millstone's spent fuel. (2/19/04 Tr. at 217-18).
23. Although the ISFSI site has been designed to accommodate a total of 135 HSMs, DNC will install HSMs and load spent fuel into the ISFSI in phases in order to maintain full core reserve in accordance with prudent spent fuel management practices in Units 2 and 3 or satisfy an operational, regulatory or other contingency in Units 1, 2 and/or 3. (DNC Exh. 1, p. 10; DNC Exh. 8 at 3; 12/15/03 Tr. at 77; 1/7/04 Tr. at 58, 75, 222-23).
24. The first phase of the project will involve site clearing, regrading and preparation, backfilling with "select fill" (also known as lean concrete) to address structural and seismic considerations, construction of a haul road, installation of temporary and permanent stormwater drainage improvements, placement of underground utilities, movement of the perimeter Protected Area fence and the construction of a concrete pad that can accommodate the installation of 20 HSMs (Phase I). (DNC Exh. 1, p. 10; DNC Exh. 9 at 2; 12/15/03 Tr. at 85; 1/7/04 Tr. at 217).
25. Only 19 HSMs would be installed in Phase I of the construction. Eighteen (18) of the 19 HSMs would be used to satisfy DNC's immediate spent fuel storage requirements for Millstone Unit 2. One empty HSM (the 19th HSM) would be placed adjacent to the last loaded HSM for radiological shielding purposes. (DNC Exh. 1, p. 10-11; DNC Exh. 9 at 1; 12/15/03 Tr. at 85).

Public Benefit

26. In planning for spent fuel management and in evaluating when additional storage will be required, one of DNC's operational objectives is to maintain sufficient capacity in each unit's spent fuel pool to store at least all fuel in the reactor core as well as the spent fuel that has been permanently removed from the reactor during past refuelings. This practice, which is known as maintaining "full core reserve," is based on operational safety, economic and practical considerations and is employed at nearly every nuclear plant in the United States. (DNC Exh. 5, Response (Resp.) No. 3; DNC Exh. 7 at 2-3; DNC Exh. 16, Resp. No. 19; 1/7/04 Tr. at 56).
27. Millstone is the largest base load generator of electricity in New England and supplies enough power to supply approximately 1.2 million households. Power generated at Millstone is 28% of the installed capacity in Connecticut and provided the equivalent of 47% of Connecticut's actual generation needs between 2000 and 2002. (DNC Exh. 8 at 2; DNC Exh. 18; 1/7/04 Tr. at 143).
28. During the August 14, 2003 blackout, Millstone was the only major Connecticut generator to stay online. Millstone's ability to stay online provided invaluable support to the reliability of the Connecticut power transmission grid. As a result, Millstone was credited with playing a major role in stopping the migration of the blackout throughout New England. (DNC Exh. 8 at 2; DNC Exh. 18).
29. Millstone is the largest taxpayer in the Town of Waterford. (1/20/04 Tr. at 178). Millstone's total annual economic impact is approximately \$515 million in New London County and \$585 million throughout the entire State of Connecticut. Millstone is also responsible for the purchase of goods and services of approximately \$34 million in New London County and \$63 million throughout the State of Connecticut. (DNC Exh. 18).
30. Without the ISFSI, Millstone Unit 2 will lose full core reserve capability after its Spring 2005 refueling outage and will be required to shut down if alternate spent fuel storage is not available by 2010. Unit 3 will lose full core reserve capability in 2020. (DNC Exh. 5, Resp. No. 3; DNC Exh. 7 at 2; DNC Exh. 8 at 1; DNC Exh. 16, Resp. No. 19; 12/15/03 Tr. at 76; 1/7/04 Tr. at 57-58, 115). This premature closure of Millstone would impact the reliability of the electric market in the State and the region, result in the loss of jobs and have an adverse economic impact on the State, the region and the nation. (DNC Exh. 18).

Proposed Site

31. The ISFSI would encompass an approximately 2-acre area in the easterly portion of the South Access Point (SAP) parking lot; east of and adjacent to the Millstone power generating units (ISFSI Site). The westerly portion of the SAP parking lot, between the ISFSI Site and the power generating units (approximately 4 acres) will be used as an equipment laydown area (Equipment Laydown Area). The ISFSI Site and Equipment Laydown Area will be surrounded by physical security measures including perimeter

intrusion detection systems, physical barriers, isolation zones and security lighting similar to that currently surrounding the Millstone power generating units. (DNC Exh. 1, p. 2).

32. The SAP parking lot is located directly beneath the Units 1, 2 and 3 transmission lines extending from the power generating units to the electric switchyard to the north. The ISFSI Site will be located in the easternmost portion of the SAP parking lot, beneath the Unit 1 transmission lines. Because OSHA imposes certain restrictions on construction activities below energized transmission lines, activity beneath the energized Units 2 and 3 transmission lines will be limited to equipment storage in the Equipment Laydown Area. (DNC Exh. 1, pp. 10, 29; DNC Exh. 5, Resp. No. 12; 12/15/03 Tr. at 183).

Land Use

33. The southerly portion of the Property (south of the Amtrak rail line), where the power generating units are located and the ISFSI is proposed to be located, is zoned I-G, General Industrial District. The portion of the Property north of the Amtrak rail line is zoned IP-1, General Industrial Park District. (DNC Exh. 1, p. 22).
34. The nearest residential area is located approximately 1,700 feet to the northeast of the ISFSI Site. Additional residential areas exist as close as approximately 2,700 feet to the northwest of the ISFSI Site. (DNC Exh. 1, p. 24).
35. The closest recreational resources are those located in the northeast corner of the Property. Millstone currently allows the Town to use a portion of the Property for recreational purposes. The Town has developed baseball, soccer and football fields in this area. The use of these fields by the Town will not be affected by the ISFSI project. The existing Millstone Nature Trail is a recreational area that has been closed to the public pursuant to NRC Security Orders issued since September 11, 2001. (DNC Exh. 1, p. 20).

Ecological Resources

36. The ISFSI will be constructed on currently-disturbed, previously impacted areas. The proposed ISFSI will be located in an area currently used as a parking lot with its paved and gravel surfaces. (DNC Exh. 12 at 1).
37. The ISFSI Site, Equipment Laydown Area and Soil Placement Area are located on a previously disturbed upland area with no special habitat value. (DNC Exh. 1, p. 18).
38. The ISFSI Site is adequately separated from inland wetlands and watercourses, coastal resources, tidal waters, marine habitats and other marine resources. (DNC Exh. 1, p. 18).
39. To avoid impacting existing ecological resources on the Property, including without limitation the wetlands, fresh water stream and fresh water pond east of the ISFSI Site, site development plans and specifications for the ISFSI project include sufficient erosion and sedimentation control measures. (DNC Exh. 1, pp. 17-18).

40. In its comments, the Department of Environmental Protection (DEP) indicated that “[r]esource conflicts are negligible given the nature of the existing development of the site.” (Letter from the Connecticut Department of Environmental Protection, dated December 9, 2003 (DEP Comment Letter) at 2).
41. The Connecticut Historical Commission/State Historic Preservation Officer (SHPO) reviewed the proposed ISFSI project and determined that the development of the ISFSI will have no effect on state or federal historic or archeological resources listed on or eligible for the National Register of Historic Places. (DNC Exh. 1, Attach. 10).
42. The DEP Environmental and Geographic Information Center also reviewed the proposed ISFSI project and found that no extant populations of Federal or State Endangered or Threatened or Special Concern species will be impacted by the ISFSI project. (DNC Exh. 1, Attach. 12). The Environmental Site Assessment (ESA) reached the same conclusion. (DNC Exh. 1, Attach. 9).
43. The HSM vents are covered with exterior screens to prevent animals and birds from entering the HSMs. (DNC Exh. 16, Resp. No. 32).
44. The relative location and height of the ISFSI are such that the use of the top surface by birds for nesting is highly unlikely. To the extent that birds perch on the ISFSI, the duration would be limited. (DNC Exh. 16, Resp. No. 33).

Traffic

45. The construction of the ISFSI will have only minor effects on local vehicular traffic. Construction related impacts will be limited to construction worker vehicle trips and truck traffic associated with the import of soil, concrete and related construction materials. (DNC Exh. 1, p. 21).
46. Truck traffic associated with the ISFSI project will be required to use designated truck routes and adhere to Department of Transportation regulations regarding load weight. Certain materials (e.g., HSMs) are expected to be transported to the site by barge, further reducing the traffic burden on local roads. (DNC Exh. 1, p. 21).
47. The operation of the ISFSI will have no impact on local traffic. All fuel loading processes will occur within the expanded Protected Area. No on- or off-site traffic will be impacted by this process. (DNC Exh. 1, p. 21).

Noise

48. Noise associated with the construction of the ISFSI will occur on-site for a short period of time, approximately three months, during the initial phases of construction. (DNC Exh. 1, p. 18).
49. Construction noise will stem from the operation of construction equipment and truck traffic. The closest off-site noise receptor is a residential area approximately 1,700 feet to

the northeast of the ISFSI Site. Changes in topography and the existence of dense vegetation between the ISFSI Site and this residential area will significantly reduce, if not eliminate, noise impacts associated with construction activity. (DNC Exh. 1, p. 18).

50. The NUHOMS® System is a passive system for storing spent fuel. There are no operating motors, fans or other similar devices associated with the HSMs. The only noise resulting from the operation of the ISFSI is that associated with the transport and loading operation. (DNC Exh. 1, p. 18, Attach. 9 § 4.10).

Radiological Safety

51. Radiological safety at commercial nuclear power stations across the country is under the exclusive jurisdiction of the NRC. (Maine Yankee Atomic Power Co. v. Bonsey, 107 F. Supp. 2d 47 (D. ME 2000); 2/19/04 Tr. at 181).
52. DNC evaluated the proposed siting of the ISFSI installation to ensure that the ISFSI satisfied the applicable federal requirements. DNC's radiological exposure calculations, which assume a fully developed ISFSI (135 HSMs), and take into account appropriate occupancy factors for on-site locations (for example, workers do not occupy locations or buildings 24 hours a day) show that expected yearly exposures to workers and/or members of the public both on-site and off-site to be a small fraction of the regulatory limits. (DNC Exh. 5, Resp. No. 15; DNC Exh. 10 at 1-2).

Visibility

53. The ISFSI Site will be located adjacent to the existing Millstone generating units in the southernmost portion of the Property. (DNC Exh. 1, Attach. 11).
54. DNC evaluated the visual impact of the ISFSI from areas surrounding the proposed ISFSI Site, including Jordan Cove, Long Island Sound and Niantic Bay; residential property, northwest of the ISFSI Site; an area along the Amtrak right-of-way, north of the ISFSI Site; and the closest residential neighborhood, northeast of the ISFSI Site. (DNC Exh. 1, Attach. 11).
55. From most of these locations, surrounding views of the ISFSI Site will be obstructed by changes in topography, existing vegetation (mature trees) and the existing power generating facility itself. The outline of the storage modules may be visible, through the trees, from locations to the east, southeast and northeast, but only during winter months. (DNC Exh. 1, pp. 19-20).

Air Quality

56. During construction, the potential exists for short-term and highly localized impacts from the operation of construction equipment and vehicular movement. However, these impacts will be minimized by assuring that equipment is properly maintained. (DNC Exh. 1, Attach. 9, p. 28).

57. Additional impacts to air quality, during construction, may result from fugitive dust. These impacts are expected to be contained on-site and will be limited only to the earth-moving stage of site work. In addition, several mitigation measures will be implemented to reduce the amount of dust generated during construction. (DNC Exh. 1, Attach. 9, p. 28).
58. Upon completion of construction, the NUHOMS[®] System, which is a passive installation without moving equipment or components, will not generate any air emissions. (DNC Exh. 12 at 2).

Wetlands and Watercourses

59. The ISFSI Site, Equipment Laydown Area and the area in which soil will be placed during construction (Soil Placement Area) are located outside the limits of existing tidal and inland wetlands and watercourses on the Property; outside of the Town designated upland review areas; and, outside identified flood hazard areas. (DNC Exh. 1, pp. 14-16, Attach. 7; DEP Comment Letter at 2; 1/7/04 Tr. at 123-24, 154).
60. The closest wetland or watercourse is located approximately 150 feet to the east of the ISFSI Site. (DNC Exh. 1, p. 15; DNC Exh. 14, Resp. No. 19). This wetland area is associated with a drainage outfall (DSN 011) and swale to the east of the existing railroad spur line. (DNC Exh. 1, Attach. 7, Fig. 2; DNC Exh. 15).
61. The area east of the railroad spur will be impacted by construction activity associated with the installation of a new drainage pipe and outlet at this location. The existing stormwater culvert will be replaced with a new pipe and head-wall and permanent erosion controls measures. These impacts will be temporary but will result in long-term improvements to the existing drainage outlet. (DNC Exh. 1, p. 15-16, Attach. 7; DNC Exh. 12 at 2).
62. Additional wetlands have been identified to the north of Building 532 and the existing access road. Limited drainage improvements, south of the access road and east of Building 532, may encroach into the Town's 100-foot upland review area but will not directly impact any wetland or watercourse. (DNC Exh. 1, pp. 15-16, Attach. 7).
63. Additional wetlands and watercourses in the southerly portion of the Property include a fresh water pond approximately 200 feet to the east of the ISFSI Site and wetlands associated with on-site drainage features to the north of the ISFSI Site. (DNC Exh. 1, pp. 15-16, Attach. 7).
64. The development of the ISFSI Site will have no direct permanent impacts on wetlands or watercourses and will result in no net loss of wetlands or watercourses on the Property. The ISFSI project will not result in any changes or impacts to the existing fresh water pond or any of its adjacent wetland areas. Adequate erosion and sedimentation controls can be installed and monitored throughout the construction period to avoid construction related impacts. (DNC Exh. 1, pp. 15-16, Attach. 7).

Stormwater

65. Stormwater runoff from the SAP parking lot is currently conveyed as sheet flow until intercepted by several existing catch basins. Total surface runoff from the Property will not increase substantially (less than 5%) as a result of the ISFSI project. Peak stormwater runoff rates and velocity will not increase appreciably and will not materially increase water surface profiles or flooding potential of those areas that currently receive stormwater discharge from the Property. (DNC Exh. 1, p. 16).
66. As part of the ISFSI project certain modifications to the existing stormwater drainage system will be required. These modifications include:
- the rerouting of a portion of the 30" stormwater drainage line, from a point near Building 532, to run parallel to the existing access road and around the northerly and easterly side of the ISFSI Site. This new drainage line will connect to a new stormwater culvert east of the ISFSI Site;
 - the installation of new stormwater drainage structures including catch basins and trench drains within the ISFSI Site and Equipment Laydown Area. Each of these drainage structures will be connected to a piping system located south of the ISFSI Site, connected to the stormwater culvert east of the ISFSI Site;
 - the replacement of the existing stormwater culvert extending from the area east of the ISFSI Site, under the access road and rail spur; and
 - the replacement of an existing outlet structure east of the railroad spur line with permanent erosion control measures.
- (DNC Exh. 1, pp. 16-17).
67. No stormwater drainage improvements are proposed or necessary in the Soil Placement Area. (DNC Exh. 1, p. 17).

Groundwater

68. The depth to groundwater at the ISFSI Site is 6.5 - 7.0 feet below surface, and most of the overburden material is very dense with low permeability. (12/15/03 Tr. at 164-66).
69. DNC intends to complete all subsurface work and install associated infrastructure to prepare the ISFSI site for 135 HSMs during the initial construction phase rather than perform the subsurface work in phases. This approach will minimize potential construction impacts on groundwater. (DNC Exh. 9 at 2; DNC Exh. 16, Resp. No. 54).
70. As the ISFSI is built out beyond the first 19 HSMs, only the four (4) foot thick pads would be added. These pads will not come in contact with groundwater. (DNC Exh. 9 at 2; DNC Exh. 16, Resp. No. 54).
71. The concrete pad and apron are not expected to have any significant effect on groundwater, since:

- Apron stormwater will be collected and conveyed to the stormwater system and will eventually be discharged through the stormwater outlet to the east of the SAP parking lot and the railroad spur; and
- HSM pad runoff will flow in part towards the apron drainage system, and then towards the existing access road, where it will join existing drainage to the south which eventually flows to the same stormwater outlet as the SAP parking lot.

(DNC Exh. 1, Attach. 5, DWG-4 & DWG-5; DNC Exh. 16, Resp. No. 54).

Schedule and Cost

72. DNC will commence Phase I immediately following the Council's approval of the Development & Management Plan and full construction of Phase I is anticipated to be completed by the end of 2004. (DNC Exh. 1, p. 32). Nineteen (19) HSMs will be installed in Phase I. (DNC Exh. 1, p. 10; DNC Exh. 9 at 1; 12/15/03 Tr. at 85).
73. For installation of HSMs beyond Phase I, DNC expects that, in advance of the anticipated loss of full core reserve in either the Unit 2 or Unit 3 spent fuel pools, DNC will load a number of canisters to assure that full core reserve is available for the next several refueling outages. (1/20/04 Tr. at 67-68). To the extent DSCs are removed from the HSMs, DNC plans to reuse those HSMs prior to installing new HSMs. (DNC Exh. 16, Resp. No. 42).
74. How DNC schedules and coordinates its fuel loading campaigns depends on a number of factors, including among others, scheduled reactor refueling and the availability of equipment and manpower. (1/7/04 Tr. at 211-12; 1/20/04 Tr. at 67).
75. DNC estimates that the cost of construction of Phase I of the ISFSI project will be approximately \$24 million and that the costs associated with the full build-out, if necessary, will be an additional approximately \$95 million. (DNC Exh. 1, p. 32).

Municipal Orders

76. As part of the local input process, the Town of Waterford Planning and Zoning Commission (P&Z Commission) and Town of Waterford Conservation Commission (Conservation Commission) issued orders pursuant to General Statutes § 16-50x(d) requesting that the Council impose certain conditions on the Application (Municipal Orders).
77. The conditions set forth in the Municipal Orders relate to the use of the ISFSI, the future use of the Property, reporting obligations, the location and size of the ISFSI and the physical improvements required for construction and installation of the ISFSI. (DNC Exh. 3, Attach. 3). In its Application, DNC expressed concern about some of the conditions imposed and, on September 19, 2003, appealed the Municipal Orders to the Council. (DNC Exh. 1, pp. 26-31; DNC Exh. 4).

78. In its original proposal presented to the Town, DNC had designed the ISFSI to accommodate 234 HSMs. The 234 HSMs would have satisfied DNC's spent fuel storage requirements for operation of Units 2 and 3 through current license and license renewal and would have provided sufficient capacity for DNC to remove all of the spent fuel from the Units 1, 2 and 3 spent fuel pools. In response to concerns raised by the Town, DNC reduced the size of the ISFSI to 135 HSMs. (DNC Exh. 16, Resp. No. 25; 12/15/03 Tr. at 84-87).
79. In the Municipal Orders, the P&Z Commission seeks to further reduce the size of the ISFSI and to reduce the extension of the Protected Area to accommodate 19 HSMs because this quantity is necessary to maintain full core offload for the continued operation of Unit 2 through its current license period and "[t]emporary dry cask storage is not needed to accommodate spent fuel from Unit 1 or 3." The Conservation Commission agrees that the size of the ISFSI should be limited to 19 HSMs. (DNC Exh. 3, Attach. 3, Municipal Orders Conditions 2, 4, 9).
80. The ISFSI, as proposed in the Application, is not restricted to the storage of spent fuel from Unit 2 during its current license period. (1/20/04 Tr. at 79). Unit 3 will lose full core reserve in 2020. (DNC Exh. 7 at 2; 1/7/04 Tr. at 57, 216). DNC applied for license renewals for Units 2 and 3 on January 22, 2004. (DNC Exh. 18). If license renewal is granted, in order to maintain full core reserve capability in both Units 2 and 3 during the units' license periods (including license renewal), DNC will need a total of 85 HSMs. (DNC Exh. 7 at 3; 12/15/03 Tr. at 79). The Application also addresses the potential need for an additional 50 HSMs to satisfy an operational, regulatory or other contingency that may require removing some or all of the spent fuel from the Units 1, 2 and/or 3 spent fuel pools or a future economic use for Unit 1 that would require emptying the Unit 1 spent fuel pool. (12/15/03 Tr. at 69-70, 79; 1/7/04 Tr. at 194-95, 221-22).
81. Condition 1 of the Municipal Orders states that "[t]he designated and acceptable location for the storage of spent fuel is the existing spent fuel pools. The permanent storage facility is not on this site." (DNC Exh. 3, Attach. 3). Although currently only the spent fuel pools are available for storage, the ISFSI is also an acceptable location for the storage of spent fuel. (1/20/04 Tr. at 74-75, 77). The ISFSI is intended to be used for the interim storage of spent fuel at Millstone until the DOE fulfills its statutory and contractual obligations and accepts the fuel for permanent disposal. The ISFSI is not a long-term repository for the storage of spent fuel. (DNC Exh. 1, p. 8; DNC Exh. 5, Resp. No. 9).
82. Condition 3 of the Municipal Orders states that the ISFSI should be removed "prior to or as part of the plant decommissioning." (DNC Exh. 3, Attach. 3). The status of a federal repository and its eventual date for opening and acceptance of spent fuel from the nation's nuclear facilities is still unknown. As a result, DNC has no control over when a federal repository will be open or whether DOE will have accepted all of Millstone's spent fuel prior to plant decommissioning. (1/20/04 Tr. at 80). Accordingly, DNC cannot provide an exact timetable for the removal of all of the spent fuel from the Millstone site. (1/20/04 Tr. at 80).

83. Condition 5 of the Municipal Orders states that “[t]emporary dry cask storage will be restricted to waste generated on site.” (DNC Exh. 3, Attach. 3). DNC has agreed that only spent fuel from the Millstone units will be stored in the ISFSI. (DNC Exh. 1, p. 8; DNC Exh. 8 at 3; DNC Exh. 14, Resp. No. 17; 12/15/03 Tr. at 116-17; 1/20/04 Tr. at 79). The NRC general license issued to DNC for the ISFSI also restricts the storage of spent fuel in the ISFSI to “that spent fuel which the general licensee is authorized to possess at the site under the specific license for the site.” (DNC Exh. 14, Resp. No. 17).
84. Condition 6 of the Municipal Orders states that the “temporary use will not preclude the future use of the facility for business, water dependent or industrial use(s) as permitted in the Zoning Regulations of the Town of Waterford.” (DNC Exh. 3, Attach. 3). The construction and operation of the ISFSI on the former SAP parking lot will not impact future uses of the Property. (DNC Exh. 1, p. 28).
85. Condition 7 of the Municipal Orders states that any other physical improvements or outdoor use of land required to move the storage unit components onto the site should be submitted to the P&Z Commission for review. (DNC Exh. 3, Attach. 3). No additional physical improvements beyond those identified in the Application are anticipated in order to move the storage unit components onto the site. (DNC Exh. 1, p. 31; DNC Exh. 9 at 2).
86. Condition 8 of the Municipal Orders requests that DNC submit a written report to the P&Z Commission at least every five years “on the status of construction, module installation, continued need, changes in plans for off site disposal and other information that would keep the commission informed on changes impacting the duration of the storage.” (DNC Exh. 3, Attach. 3). DNC has agreed to provide the Town with annual reports on the status of Millstone’s operations, including the information requested on the ISFSI, as well as information on the status of the federal repository and a 5-year projection of DNC’s anticipated dry storage requirements. (DNC Exh. 1, p. 28; DNC Exh. 8 at 3-4).
87. The Conservation Commission states that the size of the ISFSI should be limited to the minimum number required to meet DNC’s intent to maintain full core off-load at Unit 2 until the anticipated operational date of the federal repository at Yucca Mountain in 2010. (DNC Exh. 3, Attach. 3, Municipal Orders Condition 9).
88. The DOE was originally required to take the spent nuclear fuel from the nation’s nuclear plants beginning in 1998. As of today, DOE has not fulfilled that obligation. Currently, plans are underway to build a federal repository at Yucca Mountain in Nevada. Although DOE’s officially stated position is a target date for opening in 2010, DOE’s actual ability to meet that target is doubtful, and the commencement date for actual DOE operations remains the subject of much controversy. (DNC Exh. 5, Resp. No. 2; 1/7/04 Tr. at 61-64). Therefore, for planning purposes, DNC assumed that the repository would not be open and accepting spent fuel at sustained rates during the license periods (including license renewal) for Millstone Units 2 and 3. (1/7/04 Tr. at 63-64).

89. The Conservation Commission also states that the size of the ISFSI Site should be restricted to the area necessary to install 19 HSMs by 2013 to reduce soil disturbance, alteration of run-off patterns and potential construction impacts to wetlands and watercourses. (DNC Exh. 3, Attach. 3, Municipal Orders Condition 9).
90. In its review of the Application, the DEP found that by doing the infrastructure improvements at one time and avoiding multiple disturbances to the site, the potential environmental impacts from construction would be reduced. (DEP Comment Letter at 3; 2/19/04 Tr. at 213-14). If the infrastructure is done in phases, each time another phase of the infrastructure is constructed, additional excavation, handling of stormwater and dewatering activities would have to occur. By preparing the entire infrastructure at one time, the site and the adjacent wetland and upland review area are only exposed to this activity over one construction period. (2/19/04 Tr. at 214-15).
91. The Conservation Commission also states that “[t]he location of the HSM modules on the selected ISFSI site should be restricted to the western edge of the proposed pad proximal to the existing structure and the existing perimeter security fence.” (DNC Exh. 3, Attach. 3, Municipal Orders Condition 9). The location proposed by the Conservation Commission would place the ISFSI directly under the energized Unit 2 transmission lines. OSHA imposes certain restrictions on construction activities under these energized lines. (DNC Exh. 1, p. 29; DNC Exh. 5, Resp. No. 12; 12/15/03 Tr. at 183). It is not feasible for the Unit 2 and/or Unit 3 transmission lines to be de-energized during periods of construction activity because the Technical Specifications, which are part of the NRC operating licenses for Units 2 and 3, require that the transmission lines be energized at all times except when the units are fully shutdown or during refueling. (DNC Exh. 5, Resp. No. 12). De-energizing the Unit 2 and Unit 3 transmission lines for extended periods to accommodate ISFSI construction would also disrupt the flow of electricity generated by Millstone to the New England power grid. (DNC Exh. 5, Resp. No. 12).
92. The Conservation Commission further states the spent fuel stored in the ISFSI should be restricted to the spent fuel from Unit 2 “currently identified for acceptance at the federal repository and consistent with the acceptance priority ranking prepared by the U.S. Department of Energy.” (DNC Exh. 3, Attach. 3, Municipal Orders Condition 9). The DOE has not prepared a current acceptance priority ranking. The “Acceptance Priority Ranking & Annual Capacity Report” issued by the Office of Civilian Radioactive Waste Management of the DOE in March 1995 (the 1995 APR) was only a planning document, which has become somewhat outdated and may contain assumptions that are no longer valid. (DNC Exh. 14, Resp No. 7; 1/20/04 Tr. at 92-93).
93. The Conservation Commission also requests “a good faith and detailed examination of alternatives to the current storage proposal that were considered and rejected.” (DNC Exh. 3, Attach. 3, Municipal Orders Condition 9). As part of this proceeding, DNC provided an analysis of the alternatives to the ISFSI considered including (a) doing nothing; (b) interunit transfer; and (c) adding a spent fuel pool. Based on this analysis, DNC determined that dry storage was the preferred alternative. (1/20/04 Tr. at 96).

94. The Conservation Commission also states that a groundwater and surface water monitoring plan should be prepared and implemented at the ISFSI Site. (DNC Exh. 3, Attach. 3, Condition 9). DNC currently maintains an individual National Pollution Discharge Elimination System (NPDES) permit for the discharge of stormwater and plant process wastewater and a General Permit for the Discharge of Stormwater Associated with Industrial Activity. (DNC Exh. 12 at 2). The individual NPDES permit currently includes the stormwater run-off from the SAP parking lot where the ISFSI is proposed to be located. (DNC Exh. 1, Section III.B.2 and Attach. 8; DNC Exh. 5, Resp. No. 14; DNC Exh. 12 at 2). Upon the completion of and prior to discharge of stormwater from the ISFSI, DNC will confirm or obtain coverage under its NPDES permit or register DSN 011 under the DEP's General Permit for the Discharge of Stormwater Associated with Industrial Activity. (DNC Exh. 5, Resp. No. 14; DNC Exh. 12 at 3).

Acceptable Conditions

95. As part of this proceeding, DNC agreed to several conditions of approval. These conditions are:
- Only Millstone spent nuclear fuel will be stored in the ISFSI. (DNC Exh. 1, p. 8; DNC Exh. 8 at 3; DNC Exh. 14, Resp. No. 17; 12/15/03 Tr. at 116-17).
 - DNC will use only NRC-certified dry storage systems as part of the ISFSI. (DNC Exh. 1, pp. 11-12; DNC Exh. 5, Resp. No. 7).
 - DNC will provide the Council and the Town with annual reports on the status of Millstone's operations, including information on the necessity to expand the ISFSI, the status of the federal repository and a 5-year projection of DNC's anticipated spent fuel storage requirements. (DNC Exh. 1, p. 28; DNC Exh. 8 at 3-4).
 - DNC will install three groundwater monitoring wells, one upgradient and two downgradient from the ISFSI Site, and periodically share monitoring results with the Council and the Town. (1/20/04 Tr. at 118-19).
 - DNC will construct the Phase I site improvements as follows:
 - Complete all subsurface infrastructure work, including without limitation, site clearing, regrading and preparation, backfilling with "select fill" (also known as lean concrete) to address structural and seismic considerations, construction of a haul road, installation of temporary and permanent stormwater drainage improvements and placement of underground utilities;
 - Relocate the perimeter Protected Area fence one time, upon completion of the Phase I site improvements, to surround the entire 2-acre ISFSI Site and 4-acre Equipment Laydown Area; and

- Install a concrete pad large enough to accommodate 20 HSMs; install 19 HSMs on the pad; and load 18 HSMs by 2015, the end of the current license period for Unit 2.

(DNC Exh. 1, p. 10-11; DNC Exh. 9 at 1-2; DEP Comment Letter at 3; 12/15/03 Tr. at 85; 1/7/04 Tr. at 217).

- DNC will expand the ISFSI beyond the Phase I improvements, up to a total of 85 HSMs, only at the rate necessary to maintain full core reserve for Units 2 and 3 in accordance with prudent spent fuel management practices through their current license periods and license renewals for each unit as follows:
 - Upon certification that the NRC has approved the license renewal for Unit 2, DNC may install as many as 27 additional HSMs at the rate necessary to maintain full core reserve in accordance with prudent spent fuel management practices for Unit 2 through 2035; and
 - Upon certification that the NRC has approved the license renewal for Unit 3, DNC may install as many as 40 additional HSMs at the rate necessary to maintain full core reserve in accordance with prudent spent fuel management practices for Unit 3 through 2045.

(1/20/04 Tr. at 105).

- DNC may install up to an additional 50 HSMs beyond those required to maintain full core reserve for Units 2 and 3 in order to satisfy an operational, regulatory or other contingency, only after approval by the Council of a Petition for Declaratory Ruling. In that Petition, DNC shall identify the contingency that has occurred that requires the installation of HSMs beyond those necessary to maintain full core reserve. (1/20/04 Tr. at 106-07).

Connecticut Environmental Protection Act (CEPA)

96. On October 9, 2003, the AG petitioned to intervene pursuant to General Statute Section 22a-19 (AG Petition). The AG Petition alleges that the ISFSI “is reasonably likely to result in increases in radioactivity in the vicinity of the proposed ISFSI site which radioactivity has the potential to harm natural resources in the ground and groundwater and in adjacent areas of the Long Island Sound both in the short term and long term.” (AG Petition at ¶ 13).
97. The NRC is the principal regulatory agency for matters dealing with nuclear energy and its authority preempts state and local control of issues related to nuclear safety. (AG Petition at ¶ 7). Accordingly, the issues raised in the AG Petition do not address areas over which the Council has jurisdiction.

98. On December 15, 2003, the Coalition Parties filed notices of intervention in this proceeding pursuant to Connecticut General Statutes Section 22a-19 (22a-19 Notices). In support of the 22a-19 Notices, the Coalition Parties allege that:

- the Application will create “potential adverse environmental effects” as a result of drainage into Jordan Cove and coastal areas;
- the “application violates the Town of Waterford Zoning Regulations”;
- the installation of the ISFSI will result in a “projected increase in routine radiation emissions”;
- there is no “public need” for the ISFSI;
- based on Millstone Unit 2’s operational history, the Application should be denied because it “is intended to extend the life of Millstone Unit 2”;
- the installation of the ISFSI will result in increased “levels of airborne radiation”;
- the installation of the ISFSI will result in “releases of radioactive effluent”; and
- the Application is incomplete because it fails to provide certain information regarding security.

(22a-19 Notices ¶ 3).

99. With the exception of the Coalition Parties’ first allegation, the matters raised in the 22a-19 Notices are outside the scope of CEPA because they are not “environmental” in nature and/or are beyond the Council’s authority and jurisdiction because they relate to radiological safety and/or current operations at Millstone, which are within the exclusive jurisdiction of the NRC.

100. With respect to the Coalition Parties’ allegation regarding drainage impacts, DEP will evaluate the stormwater discharge impact of the ISFSI project on the environment and impose appropriate regulatory and monitoring conditions on DNC to insure that such discharge, if any, does not and is not likely to unreasonably pollute, impair or destroy the public trust in the air, water or other natural resources of the State. (DNC Exh. 5, Resp. No. 14).

101. DNC identified the potential impacts of the ISFSI and has specifically designed the ISFSI to include various measures to mitigate or avoid adverse impacts both to the environment on the Property and to the surrounding community. These mitigation measures include:

- the use of specific construction techniques and methods designed to limit the potential for off-site impacts and minimize on-site impacts;

- use of best management practices in the design and operation of a stormwater drainage system;
- incorporation of appropriate soil erosion and sedimentation control to avoid impacts to nearby wetlands and watercourses; and
- adherence to strict federal regulatory requirements governing the operation of the ISFSI to protect public health and safety.

(DNC Exh. 1, pp. 24-25, Attach. 9).

102. There is no evidence in the record to support a finding that the ISFSI will or is reasonably likely to unreasonably pollute, impair or destroy the public trust in the air, water or other natural resources of the State.
103. Under CEPA, even if there is a reasonable likelihood that a project may create unreasonable pollution or impairment, the Council may still approve an application if no feasible and prudent alternative exists in lieu of the proposed ISFSI or the proposed ISFSI Site that is consistent with the reasonable requirements of public health, safety and welfare. Conn. Gen. Stat. § 22a-19(b).
104. As part of its Application, DNC considered several alternatives to the construction of the ISFSI. (1/20/04 Tr. at 96). During the course of the proceeding, several other alternatives were also considered as were alternatives to the design of the ISFSI as proposed in the Application.
105. Action has already been taken by DNC and its predecessor to increase the original capacity of the Unit 2 and Unit 3 spent fuel pools. No additional measures are available to increase the spent fuel storage capacity for Unit 2. (DNC Exh. 7 at 1-2; DNC Exh. 16, Resp. No. 20).
106. One alternative DNC considered for managing its spent fuel storage needs was to do nothing. However, without alternative spent fuel storage, Unit 2 would be required to shut down in 2010 and Unit 3 could be caused to shutdown prior to the end of its current license period. (DNC Exh. 16, Resp. No. 19; 1/20/04 Tr. at 96).
107. DNC also considered the possibility of interunit transfer. (1/7/04 Tr. at 159-60; 1/20/04 Tr. at 96). Interunit transfer would involve taking the spent fuel from the Unit 2 spent fuel pool and storing it in the Unit 3 spent fuel pool. (DEP Comment Letter at 3). Although this would provide for some additional spent fuel storage capacity in the Unit 2 spent fuel pool, this alternative would also more quickly use the existing capacity of the Unit 3 spent fuel pool. (DNC Exh. 16, Resp. No. 21; 12/15/03 Tr. at 67; 1/7/04 Tr. at 149). There is not sufficient space in the Unit 3 spent fuel pool to accommodate all of the spent fuel assemblies that will be discharged during the current license periods for Units 2 and 3. As a result, interunit transfer would only delay but would not eliminate the need for the ISFSI. (DNC Exh. 5, Resp. No. 8; DNC Exh. 7 at 2; 1/7/04 Tr. at 160; 1/20/04 Tr. at 96; DEP Comment Letter at 3). Interunit transfer would also require the

Unit 2 fuel to be handled multiple times. (DNC Exh. 5, Resp. No. 8; DNC Exh. 7 at 2; DNC Exh. 16, Resp. No. 21; 12/15/03 Tr. at 67, 98; 1/7/04 Tr. at 160; DEP Comment Letter at 3; 12/15/03 Tr. at 98; 1/7/04 Tr. at 160-61). Currently, the Unit 2 and Unit 3 spent fuel pools are only permitted to accept spent fuel from their respective generating units. In order to move the spent fuel from the Unit 2 spent fuel pool to the Unit 3 spent fuel, DNC would have to seek and the NRC would have to approve a license amendment for Unit 3. (DNC Exh. 5, Resp. No. 8, DNC Exh. 16, Resp. Nos. 21, 23). This could not be accomplished in time to ensure that DNC could maintain full core reserve in Unit 2 following the Spring 2005 refueling outage and could impact the continued operation of Unit 2. (DNC Exh. 5, Resp. No. 8; 1/7/04 Tr. at 150-51).

108. DNC also contemplated building an additional spent fuel pool in order to accommodate the spent fuel from Units 2 and 3. This would be a much more costly alternative. (1/20/04 Tr. at 96; DEP Comment Letter at 2). There is no existing space within the current buildings at Millstone to accommodate another spent fuel pool. As a result, a separate building, with all its attendant support structures, would have to be built outside the existing Protected Area. Like inter-unit transfer, the construction of a new spent fuel pool would require the fuel to be handled multiple times. Because no other facility in the United States has added a spent fuel pool to an existing reactor site, there are also many uncertainties that would add considerable time to the licensing process. (2/19/04 Tr. at 215-16).
109. DNC also considered a dry storage alternative as proposed in the Application. Dry storage is a proven technology currently in use at numerous commercial nuclear stations across the nation. This common spent fuel storage alternative has been in use since 1986. The use of a dry storage installation would not require an amendment to the NRC license for any of the Millstone units or for an additional spent fuel pool. The use of dry storage will also reduce the number of times that the fuel must be handled. Once the spent fuel is placed in the DSCs, the spent fuel can be loaded into transportation casks and be taken to a federal repository. (12/15/03 Tr. at 98).
110. In its review of the Application, the DEP also considered alternative methods of spent fuel storage and concluded that dry storage was the preferred alternative. (DEP Comment Letter at 2-3).
111. During the proceeding, other spent fuel management alternatives were explored including: (a) reprocessing of the spent fuel; and (b) transshipment of the spent fuel to another location.
112. Currently, there are no operating commercial reprocessing facilities in the United States, making reprocessing in this country impossible. (12/15/03 Tr. at 122)
113. In order for DNC to transship its spent fuel to the Dominion North Anna or Surry power stations, the receiving nuclear plant would be required to obtain a license amendment from the NRC that would allow these facilities to accept Millstone's spent fuel. The approvals issued by Louisa County for the North Anna ISFSI and by Surry County for the

Surry ISFSI would also have to be modified in order for Millstone spent fuel to be stored at either location because each of these county approvals include specific conditions that only allow for North Anna spent fuel to be stored at North Anna and Surry spent fuel to be stored at Surry. (DNC Exh. 14, Resp. No. 16; 1/7/04 Tr. at 99-102).

114. During the proceeding, several alternatives to the design of the ISFSI as proposed in the Application were also explored including: (a) installation of a berm around the ISFSI; and (b) burial of the ISFSI.
115. The installation of a berm around the ISFSI Site would increase the overall size of the area to be developed and would create corresponding impacts to the environment. An earthen berm that would encompass the ISFSI Site would be approximately 92 feet wide at the base, 22 feet tall and would encroach into the designated wetland area on the Property to the east of the SAP parking lot. In order to install an earthen berm, DNC would have to relocate the rail spur and the access road to the east. Because the Protected Area fence would be on the outside of the earthen berm, the fence would extend well into the wetland areas on the Property. The installation of an earthen berm would require approximately 70,000 cubic yards of fill, which would require DNC to import approximately 53,000 yards of additional fill onto the site. (2/19/04 Tr. at 187-88).
116. The NUHOMS® System is not designed and has not been certified for burial by the NRC, and DNC is not aware of any dry storage system that has been certified for burial by the NRC. (DNC Exh. 14, Resp. No. 12; 1/7/04 Tr. at 131-33).
117. DNC also considered several alternative sites for the location of the ISFSI. (App. Exh. 1, Attach. 6; App. Exh. 9 at 1).
118. The location for the proposed ISFSI was selected following an evaluation of possible locations both inside the existing Protected Area and elsewhere on the Property. (DNC Exh. 1, Attach. 6).
119. As part of its initial review, DNC considered four alternative locations on the Property but outside the current Protected Area. Each of these locations was evaluated based on four criteria: (a) radiological compliance; (b) physical site suitability; (c) environmental effects; and (d) security. (DNC Exh. 1, Attach. 6).
120. Although all four of the locations satisfied the review criteria, DNC determined that the site for the ISFSI proposed in the Application was the preferred location because:
 - It is located closest to the existing Millstone Protected Area and would simply require an expansion of the Protected Area fence to surround the ISFSI. Each of the alternative sites would require a separate and distinct security area outside the limits of the existing Millstone Protected Area;
 - It offered the shortest haul path between the Unit 2 and Unit 3 spent fuel pools and the proposed ISFSI. The entire haul path from the spent fuel pools to the ISFSI Site will be completely within the Millstone expanded Protected Area; and

- It is located approximately 1,300 feet south of the Amtrak rail line, thereby eliminating potential security issues associated with the active use of the line. The railway spur located east of the chosen site is owned by DNC and has been deactivated and secured.

(DNC Exh. 1, Attach. 6).

121. In its review of the Application, the DEP also determined that “[t]he proximity of the selected site to the generating units renders this site a more logical choice” (DEP Comment Letter at 2).
122. DNC also considered alternative locations within the existing Protected Area for the location of the ISFSI. (DNC Exh. 1, Attach. 6). DNC determined that siting the ISFSI within the existing Protected Area was not feasible because: (a) there was no contiguous area available that would allow construction of the ISFSI; (b) difficulties would be presented from a security and spent fuel storage management perspective; and (c) inability to satisfy the NRC requirements for siting an ISFSI. (DNC Exh. 1, Attach. 6; DNC Exh. 9 at 1).
123. There is no feasible and prudent alternative to the use or design of the proposed ISFSI or the proposed ISFSI Site that is consistent with the reasonable requirements of public health, safety and welfare.

Respectfully submitted,
DOMINION NUCLEAR CONNECTICUT,
INC.

By: 

Kenneth C. Baldwin
Joey Lee Miranda
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

and

Lillian M. Cuoco, Esq.
Dominion Resources Services, Inc.
Millstone Power Station
Rope Ferry Road
Waterford, CT 06385
Its Attorneys

CERTIFICATION

This is to certify that on this 22nd day of March 2004, a copy of the foregoing was mailed, postage prepaid, to the following:

Party -- Town Of Waterford

Robert A. Avena, Esq.
Kepple, Morgan & Avena, P.C.
3A Anguilla Park
20 S. Anguilla Road
Pawcatuck, CT 06379

Mark R. Sussman, Esq.
Andrew W. Lord, Esq.
Murtha Cullina LLP
CityPlace I, 29th Floor
185 Asylum Street
Hartford, CT 06103-3469

Party -- Connecticut Coalition Against Millstone And Milton C. Burton, William Honan, Clarence Reynolds And GERALYN COTE Winslow


Nancy Burton
147 Cross Highway
Redding Ridge, CT 06876

Party - Southeastern Connecticut Council Of Governments

James S. Butler
Executive Director
Southeastern Connecticut Council of Governments
5 Connecticut Avenue
Norwich, CT 06360

Party -- Attorney General Richard Blumenthal

Robert D. Snook, Esq.
Assistant Attorney General
Office of the Attorney General
P.O. Box 120
55 Elm Street
Hartford, CT 06141-0120


Kenneth C. Baldwin