

Dominion Nuclear Connecticut, Inc.  
Millstone Power Station  
Rope Ferry Road  
Waterford, CT 06385



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2/28/05*  
**Dominion**

February 25, 2005

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Chief, Rules Review and Directives Branch  
United States Nuclear Regulatory Commission  
Mail Stop T6-D59  
Washington, DC 20555-0001

Serial No.: 04-745  
LR/RJG R0  
Docket Nos.: 50-336  
50-423  
License Nos.: DPR-65  
NPF-49

**DOMINION NUCLEAR CONNECTICUT, INC. (DNC)**  
**MILLSTONE POWER STATION UNITS 2 AND 3**  
**LICENSE RENEWAL APPLICATIONS**  
**COMMENTS ON DRAFT SUPPLEMENT 22**  
**TO THE GENERIC ENVIRONMENTAL IMPACT STATEMENT**

On December <sup>9</sup>~~8~~, 2004, the Nuclear Regulatory Commission (NRC) issued Draft Supplement 22 to the Generic Environmental Impact Statement (GEIS) regarding the license renewal applications (LRAs) for Millstone Power Station Units 2 and 3. Comments on the draft were solicited.

DNC has reviewed the draft and presents the following observations. Draft Supplement 22 fairly represents the environmental conditions associated with plant operation. Furthermore, we concur with the overall conclusions concerning the impacts associated with the station's operation, and offer the attached comments and clarifications concerning the content of the draft.

Should you have any questions regarding this letter, please contact Mr. William D. Corbin, Director, Nuclear Engineering Department, Dominion Resources Services, Inc., at (804) 273-2365.

Very truly yours,

E. S. Grecheck  
Vice President – Nuclear Support Services

Attachment: Comments on Draft Supplement 22 to the GEIS for License Renewal

Commitments made in this letter: None.

*SIS Review Complete*  
*Template = ADM-013*

*ERFDS = ADM-03*  
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SN: 04-745  
Docket Nos.: 50-336/423  
Subject: Comments on Draft Supplement 22 to the  
Generic Environmental Impact Statement

COMMONWEALTH OF VIRGINIA     )  
   )  
COUNTY OF HENRICO            )

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Eugene S. Grecheck, who is Vice President - Nuclear Support Services, of Dominion Nuclear Connecticut, Inc. He has affirmed before me that he is duly authorized to execute and file the foregoing document in behalf of that Company, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 25<sup>TH</sup> day of February, 2005.

My Commission Expires: May 31, 2006.

Vicki L. Hull  
Notary Public

(SEAL)

**Attachment**

**Millstone Power Station Units 2 and 3  
License Renewal Applications**

**Comments on Draft Supplement 22 to the  
Generic Environmental Impact Statement  
for License Renewal**

**Dominion Nuclear Connecticut**

**Section 2.1.1 External Appearance and Setting**

Page 2-2, Line 18

**Draft GEIS Supplement 22 Statement**

*All development at Millstone is situated south of this mostly below-grade rail line.*

**Dominion Comment**

After the word "Millstone," insert "except the training facility," such that the sentence reads:

"All development at Millstone, except the training facility, is situated south of this mostly below-grade rail line."

**Section 2.1.3 Cooling and Auxiliary Water Systems**

Page 2-7, Line 9

**Draft GEIS Supplement 22 Statement**

*...cuts excavated from the bedrock at the eastern end of the quarry into Long Island Sound.*

**Dominion Comment**

"eastern" should be changed to "southern," such that the line reads:

"...cuts excavated from the bedrock at the southern end of the quarry into Long Island Sound."

**Section 2.1.3 Cooling and Auxiliary Water Systems**

Page 2-7, Lines 29-32

**Draft GEIS Supplement 22 Statement**

*Service water is withdrawn and diverted from the system before the water enters the condensers. This water is used in a variety of applications, including component cooling (e.g., pump bearings and spent fuel pool water) and fire protection. A maximum of 2.3 m<sup>3</sup>/s (36,000 gpm) of service water is withdrawn.*

**Dominion Comment**

The configuration of the service water system is somewhat different than that stated, and the stated pump capacity is that only for the three pumps at Unit 2. During normal operation, two pumps at each unit are operating, for a total of 3.4 m<sup>3</sup>/s (54,000 gpm). Also, service water is used as backup for several other systems, but not for fire protection. This paragraph should be changed to read:

"Service water is also withdrawn inside the intake structures. This water is used in a variety of applications, including component cooling (e.g., pump bearings and spent fuel pool water) and as an emergency backup supply for some systems. During normal operation, approximately 3.4 m<sup>3</sup>/s (54,000 gpm) of service water is withdrawn for both units."

**Section 2.1.4 Radioactive Waste Management Systems and Effluent Control Systems**

Page 2-8, lines 27-29

**Draft GEIS Supplement 22 Statement**

*Millstone is in the process of obtaining a permit to construct a dry fuel storage area for additional spent fuel assemblies.*

**Dominion Comment**

Millstone has obtained the permit described above. It is suggested that "is in the process of obtaining a permit to construct" be changed to "has constructed" so the sentence reads:

"Millstone has constructed a dry fuel storage area for additional spent fuel assemblies."

**Section 2.1.4.3 Solid Waste Processing**

Page 2-12, line 3

**Draft GEIS Supplement 22 Statement**

*...volume was 24.3 m<sup>3</sup> (858 ft<sup>3</sup>)...*



**Dominion Comment**

Change to:

"...volume was 243 m<sup>3</sup> (8580 ft<sup>3</sup>)..."

**Section 2.1.5 Nonradioactive Waste Systems**

Page 2-12, Lines 11-12

**Draft GEIS Supplement 22 Statement**

*Dominion has petitioned the CTDEP to be classified as a small-quantity generator because of a reduction in the amount of waste generated at Millstone.*

**Dominion Comment**

Although Millstone generates hazardous waste at the rate of a small-quantity generator, the decision was made not to pursue classification as a small-quantity generator, in order to maintain flexibility in storage and shipping. It is suggested that this sentence be deleted.

**Section 2.1.5 Nonradioactive Waste Systems**

Page 2-12, Lines 17-19

**Draft GEIS Supplement 22 Statement**

*Common types of hazardous waste generated at Millstone are lead acid sludges and batteries, solvent rags, and sawdust contaminated with chemicals regulated under RCRA.*

**Dominion Comment**

Lead acid batteries and sawdust contaminated with chemicals are classified as Connecticut-regulated wastes. This sentence should be changed to the following:

"Common types of hazardous waste generated at Millstone are aerosol cans, paint-related waste materials, and solvent rags."

**Section 2.1.6 Plant Operation and Maintenance**

Page 2-12, line 37

**Draft GEIS Supplement 22 Statement**

*Dominion assumes that an additional 60 employees will be needed...*

**Dominion Comment**

Sentence should be changed to:

“Dominion assumes that no more than 5 additional employees will be needed...”

**Section 2.1.7 Power Transmission System**

Page 2-15, Line 2

**Draft GEIS Supplement 22 Statement**

*All personnel applying herbicides are required to process a valid applicator's license.*

**Dominion Comment**

It is suggested that the word “process” be changed to “possess,” so that the sentence reads:

“All personnel applying herbicides are required to possess a valid applicator's license.”

**Section 2.2.2 Water Use**

Page 2-17, Line 2

**Draft GEIS Supplement 22 Statement**

*Additional minor amounts of ocean water are used for fire protection and other systems.*

**Dominion Comment**

Although ocean water can be used as backup for some systems, it is not used in the fire protection system. The sentence should be modified as follows:

“Additional minor amounts of ocean water may be used as emergency backup for other systems.”

**Section 2.2.2 Water Use**

Page 2-17, Lines 6-7

**Draft GEIS Supplement 22 Statement**

*Dye tracer and modeling studies estimate that 20 percent of the Niantic River discharge goes through the plant.*

**Dominion Comment**

These studies determined flow characteristics during three-unit operation. It is estimated that current two-unit operation results in approximately 15 percent of the Niantic River discharge going through the plant. The sentence should be changed to:

“Dye tracer studies estimated that 20 percent of the Niantic River discharge went through the plants during three-unit operation. It is estimated that current two-unit operation results in approximately 15 percent of Niantic River discharge going through the plants.”

**Section 2.2.3 Water Quality**

Page 2-17, Line 36

**Draft GEIS Supplement 22 Statement**

*The NPDES permit, which is renewed every five years, expired in 1997.*

**Dominion Comment**

Change “expired in 1997” to “was set to expire in 1997 but remains in effect because a timely renewal application was filed with the CTDEP” so sentence reads:

"The NPDES permit, which is renewed every five years, was set to expire in 1997 but remains in effect because a timely renewal application was filed with the CTDEP."

**Section 2.2.3 Water Quality**

Page 2-18, Lines 7-8

**Draft GEIS Supplement 22 Statement**

*Recent monitoring results show that the discharge quality occasionally exceeds permit limits.*

**Dominion Comment**

It is suggested that the sentence be changed by adding "There have been occasional instances when" before "monitoring results," substituting "have been above" for "show that the discharge quality occasionally exceeds" and adding "These instances have been properly reported in Millstone's monthly discharge monitoring reports to the CTDEP" so the sentence reads:

"There have been occasional instances when monitoring results have been above permit limits (e.g., total suspended solids). These instances have been properly reported in Millstone's monthly discharge monitoring reports to the CTDEP."

**Section 2.2.3 Water Quality**

Page 2-18, Line 24

**Draft GEIS Supplement 22 Statement**

*...may be present for no more than two hours in any one day.*

**Dominion Comment**

After "two hours," insert "per unit," so the sentence reads:

"...may be present for no more than two hours per unit in any one day."

**Section 2.2.4 Air Quality**

Page 2-20, Lines 20-22

**Draft GEIS Supplement 22 Statement**

*Air emissions from these sources are subject to Connecticut General Statutes section 22a-174-33 of the Regulations of Connecticut State Agencies (Connecticut Legislature 2003).*

**Dominion Comment**

In addition to section 22a-174-33 (which regulates Title V air permits), air emissions from site sources are subject to other regulations. It is suggested that this sentence read:

"Air emissions from these sources are subject to Connecticut General Statutes, various sections of the Regulations of Connecticut State Agencies, Title 22a-174, 'Abatement of Air Pollution,' and various federal regulations."

**Section 2.2.5 Aquatic Resources**

Page 2-20, Lines 28-29

**Draft GEIS Supplement 22 Statement**

*Millstone is located at Millstone Point, a small peninsula of land situated on the west shore of Long Island Sound near Waterford, Connecticut.*

**Dominion Comment**

Change "west" to "north," and change "near" to "in," so the sentence reads:

"Millstone is located at Millstone Point, a small peninsula of land situated on the north shore of Long Island Sound in Waterford, Connecticut."

**Section 2.2.5 Aquatic Resources**

Page 2-20, Lines 38-39, and Page 2-21, Line 4.

**Draft GEIS Supplement 22 Statement**

*...about 20 percent of the water discharged from the station from the Niantic River could be passed through the Millstone cooling water system under three-unit operation...*

**Dominion Comment**

Delete "from the station," and add "and about 15 percent under two-unit operation" to the end of the sentence, so the sentence reads:

*"...about 20 percent of the water discharged from the Niantic River could be passed through the Millstone cooling water system under three-unit operation, and about 15 percent under two-unit operation..."*

**Section 2.2.5.1 General Water Body Characteristics**

Page 2-22, Lines 12-15

**Draft GEIS Supplement 22 Statement**

*Millstone Point lies on the western shore of Long Island Sound, near the mouth of the sound. This area of Long Island Sound experiences a salinity of approximately 23 parts per thousand. Salinity is influenced by the presence of three major rivers: the Thames, the Housatonic, and the Connecticut. These rivers flow into the Sound in the vicinity of the site.*

**Dominion Comment**

It is suggested that "western shore" be changed to "eastern end," that "23" be changed to "26-30," and that "These" be changed to "The Thames and Connecticut," so the sentence reads:

*"Millstone Point lies on the eastern end of Long Island Sound, near the mouth of the sound. This area of Long Island Sound experiences a salinity of approximately 26-30 parts per thousand. Salinity is influenced by the presence of three major rivers: the Thames, the Housatonic, and the Connecticut. The Thames and Connecticut rivers flow into the Sound in the vicinity of the site."*

**Section 2.2.5.5 Population Trends Associated with Important Fish and Shellfish Species**

Page 2-24, Line 41

**Draft GEIS Supplement 22 Statement**

*...and the northern Atlantic coast of the U.S.*

**Dominion Comment**

Change "cost" to "coast."

**Section 2.2.5.5 Population Trends Associated with Important Fish and Shellfish Species**

Page 2-25, Line 28

**Draft GEIS Supplement 22 Statement**

*Individual females can produce up to 500,000 eggs.*

**Dominion Comment**

It is suggested that the sentence be changed to read:

"Individual females can produce up to 2,500,000 eggs, but 500,000 eggs is an approximate average."

**Section 2.2.5.5 Population Trends Associated with Important Fish and Shellfish Species**

Page 2-25, Line 36 and Page 2-26, Figure 2-6.

**Draft GEIS Supplement 22 Statement**

*...reporting years (Figure 2-6) (NOAA 1998; MacLeod 2003; National Marine Fisheries Service...*

### **Dominion Comment**

It is suggested that "Gottschall et al. 2003" be added to the reference list for Figure 2-6 on line 36, and in the figure itself. Gotschall et al. is the citation for the CTDEP Long Island Sound Trawl Survey.

### **Section 2.2.5.5 Population Trends Associated with Important Fish and Shellfish Species**

Page 2-26, Lines 4-8

### **Draft GEIS Supplement 22 Statement**

*According to NOAA, "The continuing low levels of landings, catch per unit effort indices, and survey indices suggest that winter flounder abundance in the Gulf of Maine has been reduced substantially. Future improvements in the condition of the stock will depend on decreases in exploitation in both the recreational and commercial fisheries, and on improved recruitment. The stock is at a low biomass level and is considered to be exploited) (NOAA 1998).*

### **Dominion Comment**

It is suggested that the following information regarding the Southern New England stock be added to this paragraph, or as an additional paragraph:

"With regard to current winter flounder stock abundance, NEFSC (2003) stated that the Southern New England/Mid-Atlantic winter flounder stock complex has been overfished and overfishing is continuing to occur. The current assessment provided a much more pessimistic evaluation of stock status than the previous assessment made in 1998. Recruitment to the winter flounder stock has been below average since 1989, and indications are that the 2001 year-class is the smallest in 22 years."

The reference for this statement is:

NEFSC (Northeast Fisheries Science Center). 2003. B1. Southern New England/Mid-Atlantic (SNE/MA) winter flounder. Pages 139-220 in Report of the 36<sup>th</sup> northeast regional stock assessment workshop (SAW): stock assessment review committee (SARC) consensus summary of assessments. NOAA/National Marine Fisheries Service, Woods Hole, MA. Accessed via:

<http://www.nefsc.noaa.gov/nefsc/publications/crd/crd0306>



**Section 2.2.5.5 Population Trends Associated with Important Fish and Shellfish Species**

Page 2-28, Lines 15-16

**Draft GEIS Supplement 22 Statement**

*...with commercial harvests over the past seven years for the Atlantis seaboard ranging from approximately 259 to over 300 MT (286 to 331 tons)...*

**Dominion Comment**

Change "Atlantis" to "Atlantic." Also, all of the numbers in this sentence should be followed by " $\times 10^3$ ."

**Section 2.2.5.5 Population Trends Associated with Important Fish and Shellfish Species**

Page 2-28, Line 25

**Draft GEIS Supplement 22 Statement**

*The silverside (Menidia menidia, family Atherinidae) is a small...*

**Dominion Comment**

Two different species of silverside are found in the area. It is suggested that the sentence be changed to:

"The silversides (*Menidia menidia*/*Menidia beryllina*, family Atherinidae) are small..."

**Section 2.2.5.5 Population Trends Associated with Important Fish and Shellfish Species**

Page 2-28, Line 32

**Draft GEIS Supplement 22 Statement**

*Regional abundance data are not available.*

**Dominion Comment**

Dominion notes that Gotschall et al (2003) observed similar fluctuations without trend throughout Long Island Sound.

**Section 2.2.5.6 Other Important Aquatic Resources**

Page 2-31, Line 8

**Draft GEIS Supplement 22 Statement**

*...barnacles, the algae *Fucus* spp., the red alga *Chondrus* spp., and...*

**Dominion Comment**

It is suggested that this sentence include *Ascophyllum nodosum*, and that it read:

*"...barnacles, the brown algae *Fucus* spp. and *Ascophyllum nodosum*, the red alga *Chondrus crispus*, and..."*

**Section 2.2.5.6 Other Important Aquatic Resources**

Page 2-31, Line 22

**Draft GEIS Supplement 22 Statement**

*...and the bivalve mollusc *Nuculana annulata*...*

**Dominion Comment**

Change "*Nuculana*" to "*Nucula*."

**Section 2.2.5.7 Threatened or Endangered Aquatic Species**

Page 2-33, Line 9

**Draft GEIS Supplement 22 Statement**

*Adult-sized (10 cm [6 or more in.]) sturgeon are occasionally seen...*

**Dominion Comment**

Dominion believes that the intent was to characterize adult-sized sturgeon as 6 feet long, rather than 6 inches.

**Section 2.2.6.1 Site Terrestrial Resources**

Page 2-36, line 10

**Draft GEIS Supplement 22 Statement**

*...173 fledglings have been produced over this period.*

**Dominion Comment**

As of the present time, the number of fledglings produced at Millstone stands at 186.

**Section 2.2.6.1 Site Terrestrial Resources**

Page 2-36, line 14

**Draft GEIS Supplement 22 Statement**

*There are 18 species listed by FWS or the state of Connecticut as being known to occur on the site.*

**Dominion Comment**

Dominion believes this sentence refers to the 18 species listed in Table 2-3. Some of those species have been observed on the site or along the transmission lines, and some have not been observed, but may occur. It is suggested that the sentence be changed to:

"There are 18 species listed by FWS or the State of Connecticut that have either been observed on the site or have the potential to occur in the area or along transmission lines."

**Section 2.2.6.1 Site Terrestrial Resources**

Table 2-3

**Draft GEIS Supplement 22 Statement**

This table lists terrestrial species known to occur or that potentially occur at Millstone or along the transmission lines.

**Dominion Comment**

Dominion notes the following:

- As of June 2004, the Cooper's hawk is no longer listed by the State of Connecticut.
- The piping plover is listed as "threatened" by the State of Connecticut.
- Dominion is unable to find any citation by the State of Connecticut that lists the New England cottontail as either threatened or endangered.
- The seabeach sandwort is listed by the State of Connecticut as a "special concern" species.

**Section 2.2.8.1 Housing**

Page 2-44, line 1

**Draft GEIS Supplement 22 Statement**

*...while another 200 live in Niantic and East Lime.*

**Dominion Comment**

Change "Lime" to "Lyme."

**Section 2.2.8.2 Public Services**

Page 2-47, Lines 10-12

**Draft GEIS Supplement 22 Statement**

*A new water supply line was constructed in 2000 to supply Millstone, and this line replaced the use of two shallow low-yield wells that had been used to irrigate ball fields and supply concession stands on the Millstone site licensed to Waterford.*

**Dominion Comment**

It is suggested that this paragraph be replaced with the following clarification:

*"A new water supply line was constructed in 2000 to supply a concession stand at the ball fields licensed by Millstone to Waterford. The stand had been supplied by a shallow low-yield well, which continues to be used to irrigate the ball fields on a seasonal basis."*

**Section 2.2.8.5 Demography**

Page 2-55, Line 30

**Draft GEIS Supplement 22 Statement**

*Source: Dominion 20004a*

**Dominion Comment**

Delete a zero in the date of the citation.

**Section 2.2.8.5 Demography**

Page 2-56, Line 35

**Draft GEIS Supplement 22 Statement**

*...after September 11, 2000...*

**Dominion Comment**

Change "2000" to "2001."

**Section 2.2.9.1 Cultural Background**

Page 2-60, Line 25

**Draft GEIS Supplement 22 Statement**

*...Park overlooking the Thames River about 8km (5 mi) northwest of Millstone.*

**Dominion Comment**

Change "northwest" to "northeast."

**Section 2.2.9.1 Cultural Background**

Page 2-63, Line 16

**Draft GEIS Supplement 22 Statement**

*Actual power generation began in 1975.*

**Dominion Comment**

Unit 1, which is not the subject of this report, began generating power in 1970. It is suggested that "at Unit 2" be inserted so sentence reads as follows:

"Actual power generation at Unit 2 began in 1975."

### **Section 2.3 References**

#### **Dominion Comment**

It is suggested that the following new references be added to this list, as discussed in comments above:

"Gottschall, K.F., D.J. Pacileo, and D.R. Molnar. 2003. Job 2: Marine finfish survey. Part I: Long Island Sound trawl survey and Part II: estuarine seine survey. Pages 41-149 in: A study of marine recreational fisheries in Connecticut. CT Dept. of Envir. Prot., Bureau of Natural Resources, Fisheries Division."

and

"NEFSC (Northeast Fisheries Science Center). 2003. B1. Southern New England/Mid-Atlantic (SNE/MA) winter flounder. Pages 139-220 in Report of the 36<sup>th</sup> northeast regional stock assessment workshop (SAW): stock assessment review committee (SARC) consensus summary of assessments. NOAA/National Marine Fisheries Service, Woods Hole, MA. Accessed via:

<http://www.nefsc.noaa.gov/nefsc/publications/crd/crd0306>"

### **Section 4.1 Cooling System**

Page 4-7, lines 38-39

#### **Draft GEIS Supplement 22 Statement**

*The barrier prevents fish from entering the quarry. Since installation of the fish barriers, the licensee has not observed any fish kills related to the station discharge.*

#### **Dominion Comment**

As discussed in section 4.1.3, page 4-28, lines 26-27, temperatures within the quarry occasionally exceed lethal temperature thresholds for some species. Some periodic, smaller-scale fish kills have occurred due to thermal stress for fish that entered the quarry as eggs/larvae, as juveniles, or during barrier maintenance activities. None of these occurrences have been of a magnitude that resulted in an impact to source populations, and they have been confined to the quarry. The sentences should be modified as follows:

"The barrier is designed to prevent fish from swimming into the quarry. Since installation of the fish barriers, the licensee has not observed any gas bubble disease-related fish kills related to the station discharge."

**Section 4.1.1 Entrainment of Fish and Shellfish in Early Life Stages**

Page 4-10, lines 17-19

**Draft GEIS Supplement 22 Statement**

*Licensees are required to demonstrate compliance with the Phase II performance standards at the time of renewal of their NPDES permit.*

**Dominion Comment**

"are" should be changed to "will be," and "at the time of renewal of their NPDES permit" should be changed to "in accordance with the provisions of the new rule" so the sentence reads as follows:

"Licensees will be required to demonstrate compliance with the Phase II performance standards in accordance with the provisions of the new rule."

**Section 4.1.1 Entrainment of Fish and Shellfish in Early Life Stages**

Page 4-10, Lines 19-21

**Draft GEIS Supplement 22 Statement**

*Licensees may be required as part of the NPDES renewal to alter the intake structure, redesign the cooling system, modify station operation, or take other mitigative measures as a result of this regulation.*

**Dominion Comment**

Delete the words "as part of the NPDES renewal" so the sentence reads as follows:

"Licensees may be required to alter the intake structure, redesign the cooling system, modify station operation or take other mitigative measures as a result of this regulation."



**Section 4.1.1 Entrainment of Fish and Shellfish in Early Life Stages**

Page 4-13, Table 4-4

**Dominion Comment**

The 2003 Annual Report (Dominion 2004b) contained minor changes to the data in this table. Also, the data columns are each  $\times 10^6$ . It is suggested that the table be replaced with the following:

**Table 4-4**

Estimated Number of Anchovies, Winter Flounder, American Sand Lance, Grubby, and Atlantic Menhaden Larvae Entrained Each Year from 1976 Through 2003 at Millstone and the Volume of Cooling Water on Which the Entrainment Estimates Were Based (From Dominion [2004b]).

Year	Anchovies		Winter Flounder		American Sand Lance <sup>a</sup>		Grubby		Atlantic Menhaden	
	No. entrained (X10 <sup>6</sup> )	Volume (m <sup>3</sup> ) <sup>b</sup> (X10 <sup>6</sup> )	No. entrained (X10 <sup>6</sup> )	Volume (m <sup>3</sup> ) <sup>b</sup> (X10 <sup>6</sup> )	No. entrained (X10 <sup>6</sup> )	Volume (m <sup>3</sup> ) <sup>b</sup> (X10 <sup>6</sup> )	No. entrained (X10 <sup>6</sup> )	Volume (m <sup>3</sup> ) <sup>b</sup> (X10 <sup>6</sup> )	No. entrained (X10 <sup>6</sup> )	Volume (m <sup>3</sup> ) <sup>b</sup> (X10 <sup>6</sup> )
1976	381	738	121	629	-	-	-	-	3	796
1977	418	821	29	444	81	954	30	489	2	773
1978	165	912	80	390	176	709	11	554	3	621
1979	805	786	44	343	110	919	20	546	<1	716
1980	877	633	168	562	111	960	32	699	2	643
1981	1,452	860	45	373	74	620	42	408	2	711
1982	451	635	164	638	27	932	48	648	14	743
1983	623	691	211	541	30	902	54	628	19	564
1984	169	801	84	508	18	835	38	524	4	557
1985	693	697	80	469	8	712	35	527	44	521
1986	1,096	1,208	123	1,064	4	1,577	53	844	5	1,217
1987	119	1,332	165	1,193	30	1,712	51	1,144	2	893
1988	386	1,790	184	1,173	74	1,291	112	1,132	6	791
1989	518	1,445	167	889	42	1,511	67	857	208	1,420
1990	981	1,483	133	1,174	39	1,607	47	998	33	1,367
1991	451	899	116	750	7	1,278	31	760	56	802
1992	157	1,091	492	1,076	19	1,302	76	1,293	51	1,220
1993	214	1,221	42	1,387	46	1,801	51	1,157	21	1,126
1994	507	1,033	173	920	58	899	58	843	66	868
1995	171	896	214	1,006	90	1,532	57	996	86	997
1996	24	138	51	472	18	729	41	467	23	92
1997	17	145	76	173	3	212	28	154	5	135
1998	64	480	84	358	11	440	22	300	33	615
1999	157	1,119	146	748	14	860	49	620	124	1,377
2000	75	875	333	1,003	88	1,459	47	754	466	1,571
2001	26	1,031	377	963	13	1,008	178	721	143	908
2002	28	881	119	880	6	760	33	875	1,454	1,088
2003	-	-	434	1,096	19	725	153	890	-	-

(a) Includes data from December of the previous calendar year.

(b) Volume was determined from the condenser and service cooling water flow at Millstone during the season of occurrence for each taxon.

### **Section 4.1.1 Entrainment of Fish and Shellfish in Early Life Stages**

Page 4-14, Table 4-5

#### **Dominion Comment**

The 2003 Annual Report (Dominion 2004b) contained minor changes to the data in this table. It is suggested that the table be replaced with the following:

**Table 4-5.** Estimated Number of Cunner, Tautog, and Anchovy Eggs Entrained Each Year from 1979 through 2002 at Millstone and the Volume of Cooling Water on Which the Entrainment Estimates Were Based (From Dominion [2004b]).

Year	Cunner		Tautog		Anchovies	
	No. Entrained (X10 <sup>6</sup> )	Volume (m <sup>3</sup> ) <sup>a</sup> (X10 <sup>6</sup> )	No. entrained (X10 <sup>6</sup> )	Volume (m <sup>3</sup> ) <sup>a</sup> (X10 <sup>6</sup> )	No. Entrained (X10 <sup>6</sup> )	Volume (m <sup>3</sup> ) <sup>a</sup> (X10 <sup>6</sup> )
1979	1,055	423	445	680	323	383
1980	1,640	677	962	773	87	359
1981	1,535	620	1,353	620	285	583
1982	2,074	755	1,248	719	210	501
1983	1,888	462	1,019	627	411	377
1984	2,089	532	1,302	569	883	453
1985	2,809	737	1,717	774	26	441
1986	2,855	1,795	3,747	1,795	523	772
1987	4,082	1,713	3,575	1,713	31	740
1988	4,294	1,800	2,693	1,800	15	905
1989	4,306	1,436	3,001	1,510	5	632
1990	3,634	1,689	2,100	1,641	27	724
1991	4,116	1,223	1,513	1,214	105	538
1992	2,648	1,509	1,341	1,509	18	648
1993	5,379	1,492	2,048	1,492	228	626
1994	6,099	1,381	1,989	1,381	175	867
1995	5,524	1,198	2,481	1,198	29	737
1996	871	256	312	256	4	114
1997	569	185	105	134	<1	92
1998	577	718	494	709	47	376
1999	1,963	1,222	1,173	1,222	1	339
2000	4,800	1,254	2,149	1,369	<1	849
2001	4,339	1,416	3,015	1,416	8	635
2002	3,340	1,188	2,040	1,188	<1	750

(a) Volume was determined from the condenser cooling-water flow at Millstone during the season of occurrence for each taxon.

**Section 4.1.1 Entrainment of Fish and Shellfish in Early Life Stages**

Page 4-16, Line 1

**Draft GEIS Supplement 22 Statement**

*...nonentrained, late stage larvae from reaching reproductive maturity.*

**Dominion Comment**

It is suggested that "and subsequent juveniles" be inserted after larvae, so the sentence reads:

"...nonentrained, late stage larvae and subsequent juveniles from reaching reproductive maturity."

**Section 4.1.1 Entrainment of Fish and Shellfish in Early Life Stages**

Page 4-18, line 17

**Draft GEIS Supplement 22 Statement**

*...cooling water entrained through the cooling system, the number of eggs entrained,...*

**Dominion Comment**

It is suggested that "eggs" be changed to "larvae."

**Section 4.1.2 Impingement of Fish and Shellfish**

Page 4-22, lines 8-10

**Draft GEIS Supplement 22 Statement**

*Licensees are required to demonstrate compliance with the Phase II performance standards at the time of renewal of their NPDES permit.*

**Dominion Comment**

"are" should be changed to "will be," and "at the time of renewal of their NPDES permit" should be changed to "in accordance with the provisions of the new rule" so the sentence reads as follows:

"Licensees will be required to demonstrate compliance with the Phase II performance standards in accordance with the provisions of the new rule."

**Section 4.1.2 Impingement of Fish and Shellfish**

Page 4-22, lines 10-12

**Draft GEIS Supplement 22 Statement**

*Licensees may be required as part of the NPDES renewal to alter the intake structure, redesign the cooling system, modify station operation, or take other mitigative measures as a result of this regulation.*

**Dominion Comment**

Delete the words "as part of the NPDES renewal" so the sentence reads as follows:

"Licensees may be required to alter the intake structure, redesign the cooling system, modify station operation or make other mitigative measures as a result of this regulation."

**Section 4.1.2.1 Impingement Monitoring**

Page 4-24, Table 4-6

**Dominion Comment**

Dominion believes that the correct reference for this table is Jacobson et al (1998). See the comment below for Section 4.10 for the complete reference.

Also, on line 18, the species name for the rock crab is *irroratus*.

**Section 4.1.3 Heat Shock**

Page 4-29, Lines 9-15

**Dominion Comment**

Dominion offers the following minor edits:

Line 9, change "*concorda*" to "*contorta*."

Line 10, change "*gragile*" to "*fragile*," and change "*Saragassum gilipendula*" to "*Sargassum filipendula*."

Line 13, change "abundance" to "nodal growth."

Line 15, change "abundance" to "growth."

**Section 4.4.2 Public Services: Public Utility Impacts During Operations**

Page 4-40, Lines 17-18

**Draft GEIS Supplement 22 Statement**

*Millstone's 2000 to 2001 potable water usage averaged  $1.257 \times 10^6$  L per day ( $3.320 \times 10^6$  gpd).*

**Dominion Comment**

Change " $3.320 \times 10^6$  gpd" to " $3.320 \times 10^5$  gpd."

**Section 4.6.2 Terrestrial Species**

Page 4-52, Lines 33-34

**Draft GEIS Supplement 22 Statement**

*Both the bald eagle (*Haliaeetus leucocephalus*) and the piping plover (*Charadrius melodus*) are known to occasionally use the Millstone site.*

**Dominion Comment**

To Dominion's knowledge, the piping plover has not been observed on the Millstone site. Dominion believes the intent may have been to name the roseate tern, which has been observed on the site. It is suggested that the sentence be changed to:

"Both the bald eagle (*Haliaeetus leucocephalus*) and the roseate tern (*Sterna dougallii*) are known to occasionally use the Millstone site."

**Section 4.10 References**

Page 4-62

**Dominion Comment**

Add the following reference, as discussed above:

"Jacobson, P.M., E. Lorda, D.J. Danila, J.D. Miller, C.A. Tomichuk, and R.A. Sher. 1998. Studies of cooling water intake effects at two large coastal nuclear power stations in New England. In Proceedings of a workshop on Clean Water Act Section 316(b) Technical Issues held at the Coolfont Conference Center, Berkeley Springs, WV, September 22-23, 1998. Electric Power Research Institute, Palo Alto, CA EPRI Technical Report."

**Section 8.1 No-Action Alternative**

Page 8-4, Lines 26-27

**Draft GEIS Supplement 22 Statement**

*When the plant stops operating, there will be a reduction in use of groundwater.*

**Dominion Comment**

The station itself does not use groundwater. The only use of groundwater is that used by the town of Waterford for seasonal irrigation of the ball fields. Therefore, closure of the plants would not necessarily result in a reduction in the use of groundwater.

**Section 8.2.5.10 Utility-Sponsored Conservation**

Page 8-50, Line 18

**Draft GEIS Supplement 22 Statement**

*Dominion participates in State-wide residential, commercial, and industrial programs to reduce...*

**Dominion Comment**

Dominion is not the local distributor of electricity. It is suggested that "Dominion participates in" be replaced with "Connecticut has" so the sentence reads:

"Connecticut has State-wide residential, commercial, and industrial programs to reduce..."

**Appendix H**

Page H-1, Lines 17-18

**Draft GEIS Supplement 22 Statement**

*...or were related to a reactor coolant pump (RCP) seal loss of coolant accident (LOCA).*

**Dominion Comment**

"loss of coolant accident (LOCA)" should be replaced with "dependency on charging pumps" so the sentence reads:

"...or were related to a reactor coolant pump (RCP) seal dependency on charging pumps."