

PHILIP M. SMALL  
Counselor at Law  
direct dial: 860-509-6575  
psmall@brownrudnick.com

**VIA ELECTRONIC MAIL AND  
FIRST CLASS MAIL**

November 10, 2010

Daniel F. Caruso, Chairman  
Connecticut Siting Council  
Ten Franklin Square  
New Britain, CT 06051

**Re: Docket No. 187 – PDC-El Paso Milford LLC (a.k.a. Milford Power, LLC) Certificate of Environmental Compatibility and Public Need: Request for Approval to Exceed 15 Percent Limit on Potable Water Use for 2010**

Dear Chairman Caruso:

For the reasons explained below, Milford Power, LLC (“Milford Power”) respectfully requests approval to use potable water in excess of 15 percent of its total annual cooling water usage for 2010. The basis for Milford Power’s request is the unusually high levels of total dissolved solids (“TDS”) in the Housatonic River, Milford Power’s primary cooling water source, during July-September 2010, resulting from the abnormally low rainfall levels and high temperatures during that time period. These high TDS levels greatly reduced Milford Power’s ability to use river water, thereby necessitating its additional use of potable water in 2010.

**BACKGROUND**

On April 7, 2009, in response to a request by Milford Power, the Connecticut Siting Council (“Council”) modified the conditions in its January 8, 1999 Decision and Order in Docket No. 187 restricting Milford Power’s use of potable water as a cooling water source. Specifically, Section 1(b) of the 1999 Decision and Order was modified to read as follows:

The facility shall cease use of potable water as a primary cooling source, and in no event shall use of potable water exceed 15 percent of the total annual average or obtain advance approval from the Council and/or the Chairman to avoid any unnecessary delay or curtailment of facility operations and to meet permitting requirements of other regulatory authorities.

Additionally, in its April 7, 2009 Decision and Order, the Council required Milford Power to: (i) provide an annual report on the use of potable water as a cooling water source; (ii) pursue modifications of its cooling tower air emission permit with the Connecticut Department of Environmental Protection (“DEP”) and provide documentation to the Council of the DEP’s determination; and (iii) investigate and report on alternatives to reduce use of potable water within one year. Milford Power has satisfied each of these conditions as described below.

Milford Power successfully pursued the cooling tower air emission permit modification with DEP, allowing it to use higher TDS river water for cooling, and notified the Council. Milford Power also filed its first Annual Report on the use of Potable Water as a Cooling Water Source (“Annual Report”) on February 1, 2010 and its Report on Alternatives to the Use of Potable Water as a Cooling Water Source (“Alternatives Report”) on April 5, 2010. Both of these reports described the significant reduction in Milford Power’s use of potable water due to its success in obtaining the DEP air permit modification. For example, the Annual Report states that Milford Power used a total of only 2.83 percent potable water for calendar year 2009. Pages 4-5 of the Alternatives Report quantifies the savings in potable water usage from the air permit change under various river water TDS concentrations.

The Alternatives Report discusses the historic TDS concentrations in the Housatonic River:

Historical water quality data for the Housatonic River, collected primarily by the State of Connecticut Department of Environmental Protection (“DEP”) in the early 1990s at locations close to the power facility’s river water intake, shows that its total dissolved solids (TDS) concentration fluctuates significantly because the facility is in close proximity to Long Island Sound. The Sound is a seawater body that has a strong tidal influence on the river water quality at the intake, causing it to fluctuate from fresh water to highly brackish water. The TDS concentration is typically less than approximately 1,000 milligrams per liter (mg/L) throughout much of the year under low tide conditions and between 1,000 and 10,000 mg/L under most high tide conditions. *However, during the summer months, particularly during periods of prolonged low flows in the Housatonic River, the TDS concentration can be expected to be between 1,000 and 10,000 mg/L under low tide conditions in the Sound and can reach concentrations in the mid-20,000 mg/L during high tide conditions.*

*Since the Milford Power facility began using Housatonic River water for cooling tower makeup, relatively wet conditions have prevailed during the two summer seasons and estimated peak TDS concentrations have been in the range of 9,600-12,800 mg/L.*

Alternatives Report at 2-3. (emphasis added)

The Alternatives Report also describes the inverse relationship between TDS levels in the Housatonic River and Milford Power’s ability to use river water for cooling. Alternatives Report at 5. With the modified air permit, Milford Power is able to use river water exclusively until TDS levels exceed approximately 15,000 ppm, as opposed to the 7,200 ppm TDS level under the prior air permit. As the river water TDS level increases above 15,000 ppm, Milford Power must use additional amounts of potable water to maintain operations. Id.

Ambient temperatures in Connecticut during the Summer of 2010 substantially exceeded normal levels and summer rainfall was less than normal levels, as shown on Exhibit 1. Low rainfall conditions and higher temperatures (via increased evaporation) reduce the flow rate in the Housatonic



River and result in greater tidal influence from the Long Island Sound. This influence translates directly into much higher TDS levels in the Housatonic River— mostly in the form of salt.

As described in the Alternatives Report (page 4), with the new air permit, Milford Power's cooling tower has a TDS limitation of 44,000 ppm, which translates to a TDS limit of approximately 15,000 ppm for its intake water. Alternatives Report at 5. Exhibit 2 shows TDS levels in the Housatonic River for July-September, 2010. As shown by that exhibit, Milford Power saw peak TDS levels in the river of approximately 24,000 ppm and an average level of approximately 17,500 ppm, well above both the historic levels described on pages 2-3 of the Alternatives Report and the 2008 and 2009 levels. Consequently, Milford Power was required to blend substantial amounts of potable water with river water during this time period to avoid significant negative impacts on its ability to operate.

Exhibit 3 shows Milford Power's potable water usage, and its potable water usage as a percentage of total cooling water usage, for 2010, using actual data for January 1-October 31, 2010 and forecast values for the remainder of 2010. As shown in Exhibit 3, Milford Power expects to use approximately 146.2 million gallons of potable water, 16 percent of the total cooling water usage in 2010, although this level may change depending on ambient conditions in November and December, 2010 and the facility's level of operation. Exhibit 4 shows what Milford Power's potable water usage in 2010 would have been absent the air permit change. In that scenario, Milford Power would have used approximately 270.5 million gallons of potable water (approximately 85 percent more potable water than it expects to use for 2010), 31.9 percent of the total cooling water usage.

### DISCUSSION

Section 1(b) of the Decision and Order in Docket No. 187, as modified on April 7, 2009, specifically authorizes Milford Power to use potable water in excess of 15 percent of its total annual average if approved by the Council and/or the Chairman. As described above and in the Alternatives Report, Milford Power significantly reduced its use of potable water by obtaining the DEP air permit change. Milford Power's expected exceedance of the 15 percent limit on potable water usage in 2010 will be a direct result of the greatly elevated TDS levels in the Housatonic River. Milford Power's expected use of 16 percent of potable water for cooling in 2010 contrasts with its actual usage in 2009 of only 2.8 percent potable water. Given the Summer, 2010 conditions, Milford Power would not have been able to operate without substantial restriction or curtailment absent its increased usage of potable water.

In summary, Milford Power successfully obtained the DEP air permit change, and as a result has greatly reduced its use of potable water for cooling. High TDS levels resulting from Housatonic River water conditions made it impossible for Milford Power to operate during the summer of 2010 without using greater than 15 percent potable water. This river condition resulted from factors well beyond Milford Power's control. Therefore, Milford Power respectfully requests that its use of greater than 15 percent potable water for cooling during 2010 be approved.

Please contact either of us with any questions.

Very truly yours,

**BROWN RUDNICK LLP**



Franca L. DeRosa  
Philip M. Small

cc: Service List

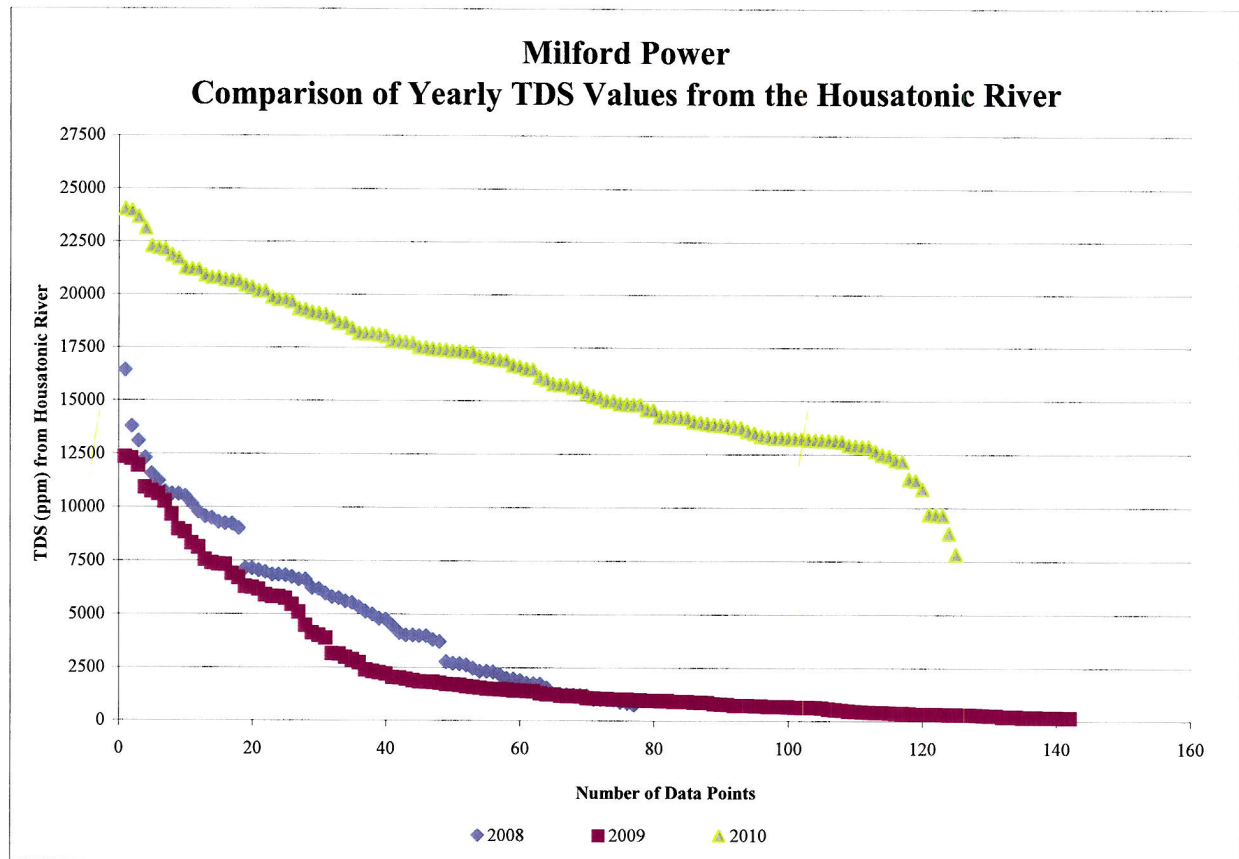
## Exhibit 1

### Milford Temperatures and Rainfall, July-September, 2010

	Monthly Average			Monthly Actual for 2010		
	Average High Temp (F)	Average Low Temp (F)	Total Rainfall (inches)	Average High Temp (F)	Average Low Temp (F)	Total Rainfall (inches)
July	82	65	3.77	87	70	4.77
August	81	65	3.75	83	68	2.42
September	74	58	3.58	77	62	2.75
Average Temperature & Total Rainfall	79.0	62.7	11.1	82.3	66.7	9.9

Source—

## Exhibit 2



### Exhibit 3

(2010 data actual through October 31 and estimated for November and December)

	Water Diversion Withdrawal		Potable Water Usage		% of Total
	Monthly	Total	Monthly	Total	
January	63,235,682	63,235,682	1,966,841	1,966,841	3.02%
February	48,618,402	111,854,084	375,498	2,342,339	2.05%
March	63,100,436	174,954,520	2,190,284	4,532,623	2.53%
April	42,507,840	217,462,360	11,651,258	16,183,881	6.93%
May	99,840,796	317,303,156	959,226	17,143,107	5.13%
June	84,205,258	401,508,414	4,716,718	21,859,825	5.16%
July	67,995,833	469,504,247	48,164,751	70,024,576	12.98%
August	69,045,000	538,549,247	42,761,000	112,785,576	17.32%
September	53,422,680	591,971,927	31,070,285	143,855,860	19.55%
October	46,379,762	638,351,689	2,366,780	146,222,640	18.64%
November	65,000,000	703,351,689	0	146,222,640	17.21%
December	65,000,000	768,351,689	0	146,222,640	15.99%

## Exhibit 4

### Projected Use of River and Potable Water Absent Air Permit Change

	Water Diversion Withdrawal		Potable Water Usage		% of Total
	Monthly	Total	Monthly	Total	
January	63,235,682	63,235,682	1,966,841	1,966,841	3.02%
February	48,618,402	111,854,084	375,498	2,342,339	2.05%
March	63,100,436	174,954,520	2,190,284	4,532,623	2.53%
April	42,507,840	217,462,360	11,651,258	16,183,881	6.93%
May	99,840,796	317,303,156	959,226	17,143,107	5.13%
June	84,200,000	401,503,156	5,000,000	22,143,107	5.23%
July	0	401,503,156	93,000,000	115,143,107	22.29%
August	0	401,503,156	93,000,000	208,143,107	34.14%
September	0	401,503,156	60,000,000	268,143,107	40.04%
October	46,379,762	447,882,918	2,366,780	270,509,886	37.65%
November	65,000,000	512,882,918	0	270,509,886	34.53%
December	65,000,000	577,882,918	0	270,509,886	31.88%