

DRAFT FOR DISCUSSION

- xx. **Outfall 00XTe**. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge via the Discharge Canal to Outfall Serial Number 001Te in the Merrimack River. Samples for ambient temperature shall be collected at Station N10 upstream of the cooling water intake structure (LAT LONG) or, in cases where Station N10 is inaccessible due to weather conditions, at Station N5 from the intake bay prior to being drawn through the traveling screens (LAT LONG). Sampling for in-stream temperature shall be conducted at Station S4 (LAT LONG) downstream from the discharge canal.

Effluent Characteristic	Effective Period	Discharge Limitations <sup>1</sup>		Monitoring Requirements <sup>2</sup>	
		Weekly Average <sup>3</sup>	Daily Maximum <sup>4</sup>	Measurement Frequency <sup>5</sup>	Sample Type
S4 Temperature	Jan 1 – Mar 31	8.0°C	---	Continuous	Thermistor
S4 Temperature	Apr 1 – Apr 30	12.0°C	---	Continuous	Thermistor
S4 Temperature <sup>6</sup>	May 1 – May 31	18.0°C	29.3°C <sup>7</sup>	Continuous	Thermistor
S4 Temperature <sup>6</sup>	Jun 1 – Jun 21	22.7°C	30.9°C <sup>7</sup>	Continuous	Thermistor
S4 Temperature <sup>6</sup>	Jun 22 – Jul 31	25.1°C	31.3°C <sup>7</sup>	Continuous	Thermistor
S4 Temperature <sup>6</sup>	Aug 1 – Sep 30	25.1°C	---	Continuous	Thermistor
S4 Temperature	Oct 1 – Oct 31	25.1°C	---	Continuous	Thermistor

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Effluent Characteristic	Effective Period	Discharge Limitations		Monitoring Requirements <sup>1,2</sup>	
		Weekly Average <sup>3</sup>	Daily Maximum <sup>4</sup>	Measurement Frequency	Sample Type
S4 Temperature	Nov 1 – Dec 31	8.0°C	---	Continuous	Thermistor
Rise in Temperature <sup>8</sup>		2.0°C	---	Calculated	Thermistor
Capacity Factor <sup>6</sup>	May 1 – Sep 30	40%	---	Calculated	Recorder

Footnotes

- (1) Discharge limitations shall apply when the Facility is operating and generating electricity. The Permittee shall not be considered in non-compliance with the temperature limits if any exceedance of weekly average and maximum daily temperature limits occurs during a period when the Facility is not producing a megawatt output and the exceedance is due to either ambient weather conditions or thermal input from another source rather than the Facility's thermal discharges.
- (2) Each in-stream monitoring station (N10, N5, and S4) shall be equipped with a continuous temperature monitor that shall record temperature at 15-minute intervals. Ambient temperature at all temperature monitoring stations (N10, N5, and S4) shall be measured at a depth of 1 foot from the surface, except that from November 1 – April 30, temperature at Station S4 shall be monitored at a depth of 1 foot or less above the river bottom.
- (3) The permittee shall calculate the weekly average temperature as a rolling 7-day average beginning on the first day of the calendar month. The last weekly average temperature of the reporting period shall include the dates between the 22<sup>nd</sup> and the last day of the month. The permittee shall report the highest weekly average temperature recorded during the calendar month.
- (4) The daily maximum temperature at Station S4 shall be calculated as an hourly average beginning at 12:00 AM and ending at 11:59 PM daily. The Permittee shall report the highest hourly average as the daily maximum temperature.
- (5) The permittee shall provide daily ambient and in-stream temperature data as a separate attachment to the discharge monitoring



## DRAFT FOR DISCUSSION

report. See Attachment XX to the Final Permit. Temperature data in 15-minute intervals shall be provided to EPA upon request.

- (6) During the period May 1 through September 30, the permittee must either maintain a rolling 45-day average generating capacity factor no greater than 40 percent of the total rated capacity for both units or meet the weekly average temperature limits at Station S4. A rolling 45-day capacity factor shall be calculated as  $[(\text{Total Unit 1 MWh output over 45 days} + \text{Total Unit 2 MWh output over 45 days}) / (\text{Total Rated MWh Output for Unit 1} + \text{Unit 2})] * 100$ . The Permittee must report the highest 45-day rolling average capacity factor in a reporting period. If, during a calendar month between May 1 and September 30, the 45-day rolling average capacity exceeds 40% the Permittee must report the highest weekly average temperature value for that reporting period. If the 45-day rolling average capacity for the reporting period does not exceed 40%, the Permittee shall report the No Data Indicator (“NODI”) code “9” (Conditional Monitoring – Not Required This Period) for the weekly average temperature value for the reporting period.
- (7) If the hourly average temperature exceeds the daily maximum temperature limit, the Permittee shall take action to reduce the temperature at Station S4 to a value below the daily maximum temperature limit. The instantaneous temperature at Station S4 must be no greater than the daily maximum temperature limit within 3 hours from the hour in which the exceedance occurs. The Permittee shall report the instantaneous temperature recorded during the final 15-minute increment of the third hour following the hour in which the exceedance of the daily maximum temperature limit was observed.
- (8) If the weekly average ambient temperature measured at Station N10, or N5 when applicable, is within 2°C of the effective weekly average temperature limit for that compliance period, then the rise in average ambient temperature at Station S4 as compared to ambient at Station N10 or N5 over the same weekly averaging period shall be no greater than 2.0°C. The permittee shall report the maximum difference between the weekly average temperatures calculated concurrently at Stations N10 and S4. For reporting periods in which the weekly average temperature limits do not apply (see fn 6, above) the Permittee shall report the NODI code “9” (Conditional Monitoring – Not Required This Period) for the rise in temperature value.

