

**REISSUANCE OF NPDES PERMIT NO. NH0022021**

BRIDGEWATER POWER COMPANY  
BRIDGEWATER, NEW HAMPSHIRE

In accordance with the provisions of 40 C.F.R. §124.17, this document presents EPA's responses to comments (RTC) received on the Draft NPDES Permit (NH 0022021). The RTC explains and supports EPA's determinations that form the basis of the final Permit. The U.S. Environmental Protection Agency (EPA-New England) and the New Hampshire Department of Environmental Services, Water Division (NHDES-WD) solicited public comments from May 25, 2006, through June 23, 2006, on the draft National Pollutant Discharge Elimination System (NPDES) permit to be reissued to the Bridgewater Power Company (BPC). This permit is for the discharge of wastewater to the Pemigewasset River from an electric power generating station.

These responses and associated comments are complementary to the Fact Sheet and Draft Permit. For the reader to fully understand them, he or she should be familiar with the draft permit, the associated Fact Sheet, applicable federal National Pollutant Discharge Elimination System (NPDES) permit regulations and the State of New Hampshire's Water Quality Statutes, Administrative Rules and Surface Water Quality Regulations effective December 10, 1999.

The final Permit has changed from the Draft Permit based on comments received. EPA's decision-making process has benefited from the various comments and the additional information submitted. The information and arguments did not result in any substantial new changes to the permit. However, a few improvements and changes are detailed in this document and reflected in the final Permit.

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**Comments from Bridgewater Power Company (BPC) - by letter dated June 23, 2006**

**COMMENT NO. 1:**

Part I.A.2.b of the Draft Permit includes a requirement to conduct temperature monitoring of the receiving water during each discharge. This seems to be an impractical requirement. Continuous temperature monitoring of the effluent is already a condition of the permit. BPC does not have the equipment or personnel necessary to meet this requirement.

**RESPONSE NO. 1:**

Part I.A.2.b was added because of concern regarding the extent of the thermal plume caused by the discharge and the potential for acute impacts to the biological organisms in the vicinity of the discharge. Based on the demonstrated infrequency of process/cooling water discharge at BPC (has not discharged from its cooling pond since it began operating in 1987) and the small, overall calculated temperature increase of the receiving stream (<1°F), EPA and New Hampshire Fish and Game agree to remove this requirement from the final permit. However, language is added to the Final Permit requesting early notification, when possible, to give NH-F&G the option of performing in-river temperature monitoring during a BPC discharge event. Part I.A.2.b of the final Permit now reads "The permittee shall notify the New Hampshire Fish and Game Department, when possible, at least three days prior to discharging to the Pemigewasset River."

**COMMENT NO. 2:**

Part I.A.2.d of the Draft Permit includes a requirement to conduct Static Acute Whole Toxicity (WET) testing on two species. BPC requests that this requirement be modified to only one specie. BPC also requests that this section be modified to include language that clarifies that this (WET) testing requirement only applies if a discharge has occurred. Section 4.3.3 of the fact sheet seems to indicate this in the 4<sup>th</sup> paragraph. In the alternative the testing required by Part I.A.4.b would cover the requirement. Again, the specie in this test should be reduced to one.

**RESPONSE NO. 2:**

Part I.A.2 of the permit indicates that “the permittee is authorized to discharge from outfall serial number 001A... to the Pemigewasset River...” and that “[s]uch discharges shall be limited and monitored by the permittee as specified below.” EPA believes that it is clear that the sampling specified in Part I.A.2 is required during an actual discharge to the receiving stream. WET testing is required twice per year. Part I.A.2.d provides more detailed information about the type of WET test that must be conducted, when samples shall be collected, and results submitted.

Part I.4.b requires that every July, the cooling pond water is sampled and WET testing performed, regardless of whether there is a discharge. Language has been added to clarify that “[i]f a discharge from outfall 001 occurs prior to July in any given year, the sampling results of that WET test can be used to fulfill the requirements of Part I.4.b.”

Review of all WET testing results since 2001 shows that Fathead Minnows (Pimephales promelas) are as sensitive or more sensitive than Daphnids (Ceriodaphnia dubia). Considering the results for 2004 and 2005 are in compliance with permit limits and the infrequency of discharge, EPA is not requiring that WET testing include analysis using Daphnids. References to Daphnids have been removed from Part I.A.2.d and Part I.A.4.b of the final Permit.

**COMMENT NO. 3:**

Part I.A.3. of the Draft Permit requires monthly sampling at representative location for specific storm water discharge criteria, this is consistent with the current permit. However, the EPA multi-sector general permit for steam electric power generating facilities specifies quarterly grab sampling in the second and fourth years of the five year permit. Historic storm water discharge analytical results, presented in the NPDES Permit Renewal Application Submittal, would justify moving the frequency to this standard. BPC would then propose using the testing frequency requirements of the EPA multi-sector general permit.

**RESPONSE NO. 3:**

Contrary to the comment, Part I.A.3 of the Draft Permit requires quarterly sampling and not monthly sampling for storm water.

On December 1, 2005, EPA proposed a NPDES Stormwater Multi-Sector General Permit for Industrial Activities (MSGP)<sup>1</sup>. This proposed permit will replace the MSGP-2000 that expired on October 30, 2005, which is referred to by the commenter. The comment period closed on February 16, 2006 and EPA is currently working on the final permit. EPA expects the permit to be final by the end of this calendar year. The 2006 Draft MSGP allows for the termination of sampling for a pollutant when four consecutive sampling results are below a benchmark value.

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<sup>1</sup> The comment period for the proposed MSGP closed on 2/16/06.

Upon review of the new MSGP, EPA- New England determined that Bridgewater Power is likely to be eligible for coverage under the new MSGP<sup>2</sup>. Similar to the Effluent Guidelines for the Steam Electric Power Generating Point Source Category (40 C.F.R. 423), Sector O of the 1995 MSGP included only facilities utilizing fossil-type fuel (coal, oil, or gas) or nuclear to produce steam as the primary means of generating electricity. Unlike the 1995 MSGP, Sector O of the proposed permit includes all steam electric facilities regardless of which fuel source is used. Therefore, facilities that burn wood, such as Bridgewater Power, may be eligible for the MSGP. Furthermore, EPA believes Bridgewater may be eligible because its individual NPDES permit does not contain numeric limits based on water quality regulations. 65 Fed. Reg. 64757 (October 30, 2000). Therefore, EPA is replacing language in Part I.A.8.a referring to a mechanism the permittee could use to opt out of storm water requirements by certifying “no exposure” with language that indicates that Bridgewater is likely to be eligible for the new MSGP when it is finalized. The “no exposure” provision is actually a section of the MSGP. Part I.A.8.a now reads “Based on the December 1, 2005, draft Stormwater Multi-Sector General Permit for Industrial Activities (MSGP), Bridgewater Power Company is likely to be eligible for the MSGP, when it becomes final. If so, the permittee may choose to apply for the MSGP to replace storm water requirements in this permit, which are defined as the Effluent Limitations and Monitoring Requirements in Part I.A.3 (page 4) for Outfalls 001C and 002 and the Storm Water Pollution Prevention Plan (SWPPP) requirements in Part I.A.5 (page 5). The permittee is required to meet all conditions in Parts I.A.3 and I.A.5 of this permit until the permittee receives a valid MSGP.”

**COMMENT NO. 4:**

Part I.A.6.d of the Draft Permit includes a requirement to prevent changes in odor or taste of the receiving water. The EPA should clarify the basis and procedures for BPC to comply with this part.

**RESPONSE NO. 4:**

The taste and odor requirements in Part I.A.6.d. of the Draft Permit are based on narrative standards in the State’s Surface Water Quality Regulations (Env-Ws 1703.03.c.1.c), and as such, are subjective. Historically, this language has been included in nearly all NPDES permits issued in New Hampshire and is being carried forward in all reissued permits for emphasis. In 40 Code of Federal Regulations Part 136-Guidelines Establishing Test Procedures For the Analysis of Pollutants, there is no approved test for either taste or odor in wastewater discharges; whereas, there are approved tests for drinking water. No taste tests have been developed for treated wastewater effluent for obvious reasons. Since BPC discharges to a Class B water, their discharge cannot by definition “appreciably interfere with the uses assigned to this class.” Waters of this classification (Class B) shall be considered “acceptable for fishing, swimming and other recreational purposes and, after adequate treatment, for use as a water supply.” As such, no pollutant discharged by this facility shall cause a taste or odor problem which can be shown to interfere with any of those designated uses. As background, EPA-New England’s enforcement personnel indicate compliance with the State’s taste and odor standards have not been a particular problem in the New England area.

However, as a practical matter, EPA-New England assumes, that in the absences of “direct evidence” to the contrary, due to the lack of objective tests for taste and odor in wastewater

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<sup>2</sup> Federal Register, Vol. 70, No. 230, December, 1, 2005, p. 72116 - 72120.

effluents, that compliance with the State's Water Quality Criteria for Toxic Substances (Env-Ws 1703.21, Table 1703.1) constitutes default compliance with the State's "taste and odor" narrative standards. For example, BPC should note that certain organic chemicals in the State's Toxic Substances section have been footnoted with the letter "j" indicating compliance with this human health criterion prevents "taste and odor effects in fish and other aquatic life." Most taste and/or odor problems can be traced back to a single chemical or to a group of similar chemicals, mainly organic compounds such as phenolic compounds. Furthermore, submission of the priority pollutant scan with permit renewal applications will assist the permittee, the EPA-New England and the NHDES-WD in evaluating whether or not any potential taste and odor problems exist at this facility.

As an aside, "direct evidence" could be considered a complaint alleging the discharge contains a taste and/or an odor that interferes with a specified designated use. For example, a downstream drinking water treatment plant which draws its source water from the river cannot remove a taste and/or odor from that source water after "adequate treatment." Another obvious example of direct evidence, would be an exceedance of any pollutant in the State Surface Water Quality Regulations (Env-Ws 1703.21, Table 1703.1), particularly ones with a "j" footnote, shown in the submittal of the priority pollutant scan.

EPA-New England hopes this discussion helps somewhat to clarify the company's concerns relative to compliance with current narrative taste and odor requirements in their NPDES permit. No change in Part I.A.6.d. has been made to the final Permit.

**Comment from Susan Willoughby (NHDES) - by email dated June 9, 2006**

**COMMENT NO. 5:**

On page 3 at the top of the page (after the Effluent Limits table), the text says "Effluent samples shall be taken from the suction side of the circulating water....." Should the text say "discharge" instead of "suction" side of the pump??

**RESPONSE NO. 5:**

The circulating water pump is not used to discharge water to the river. There is a line off the suction side of the pump that goes to a discharge pump. A representative sample could be collected before or after the discharge pump. BPC requested a location prior to the discharge pump ("suction side of the circulating water pump") because the valve was located in a convenient location, inside one of their buildings. Therefore, no change in the discharge location has been made to the final Permit.

**Added minor permit change:**

Address of the New Hampshire Department of Environmental Services has changed from 6 Hazen Drive to 29 Hazen Drive.