

Witness: Andrew J. Bazinet

Question Naugatuck-1:

Provide the original submissions to the WPCA from the previous application for a 512mw dual fuel combined cycle application and describe in detail changes from the original submission and certifications with the representations for the current 785mw dual fuel proposal.

Response:

CPV Towantic, LLC is not in possession of the original submittals to the Naugatuck Water Pollution Control Authority because CPV was not involved with the project at the time of the original application to the Connecticut Siting Council or the original submission to the WPCA. Those documents should be in the WPCA's files.

The currently-proposed Facility design includes multiple improvements that optimize the proposed Facility's water use and discharge characteristics. Primarily, these improvements include: i) elimination of the wet surface air cooler (or "wet sac") in favor of fin-fan coolers for auxiliary cooling; and ii) increased use of demineralized water for process makeup, thereby eliminating the boiler and evaporative cooler blowdown waste streams. The following table provides a simple comparison of the water discharge profile for the previous 512 MW Facility and the current 785 MW Facility.

Fuel: Ambient: Nameplate Output:	NG Summer 512MW	NG Summer 785 MW	Fuel Oil Winter 512 MW	ULSD Winter 785 MW
Discharge to Sewer (gallons per minute)	58.8	4.5	53.9	4.5
Discharge to Sewer (gallons per day)	84,672	6,480	77,616	6,480

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Question Naugatuck-2:

Describe in detail and provide a map, with descriptions of the sewer line including inspection film depicting the scoping of the course and capacity of the lines by which the wastewater discharged to the Oxford municipal sewer system travels to the Naugatuck Wastewater Treatment Plant.

Response:

CPV Towantic, LLC does not have the requested information because it does not own, or have the responsibility to operate and/or maintain the Town of Oxford's sewer system. Requests for specific information, such as capacities and inspection reports, should be directed to the Oxford WPCA Inspector or the Oxford Town Clerk.

CPV Towantic, LLC obtained the attached "Townwide Sewer Map, Oxford, Connecticut" from the Internet. We have done no independent evaluation of the accuracy of the map.

Given the relatively limited quantity of wastewater discharged by CPV Towantic (a maximum of 4.5 gallons per minute, which is roughly equivalent to the flow of a common garden hose), the course and capacity of the Town of Oxford sewer system were not evaluated by CPV Towantic, LLC.

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Question Naugatuck-3:

Describe in detail the chemical composition, quantity, kind, quality, nature and temperature of the effluent “grey water” proposed to be discharged to the Naugatuck Wastewater Treatment Plant when operating on Natural Gas at full performance and ULSD.

Response:

The proposed Facility will not be using “grey water” as that term is commonly used. Rather, the proposed Facility will be using potable water from the Heritage Village Water Company (HVWC), and utilizing the majority of that water internally through recycling and evaporative processes. For that reason, the discharge is described as “wastewater” in this and other interrogatory responses. The wastewater that will be discharged from the Facility will be associated with three distinct sources:

- a. Stormwater collected in contained areas but unrelated to Facility processes or the potable water supply.
- b. Domestic uses (sinks and toilets).
- c. Service uses include turbine building floor drains, equipment drains from the steam cycle, and fire protection. The turbine building floor drain discharge will consist of potable water with the addition of oil and suspended solids resulting from floor and equipment washdown.

The discharge associated with “a” is not unique to CPV Towantic and would be present with any commercial development that has a building. The stormwater will be processed through an oil/water separator prior to conveyance to the sanitary sewer. The discharge volumes associated with “b” and “c” are also not unique to CPV Towantic and are similar to other commercial building discharges.

The proposed Facility has been designed with a significantly reduced volume of wastewater discharge, under all operating conditions, and the quality of the proposed discharge has improved.

The maximum volume of wastewater to be discharged by the proposed Facility, through the Oxford sanitary sewer system, to the Naugatuck Wastewater Treatment Plant (Naugatuck WWTP) will be 6,480 gallons per day. This volume is based on 24 hours of operation, fueled by either natural gas or ULSD, at full plant load and across all ambient temperatures.

As to the temperature of the discharge, see the response to Q-Naugatuck-6.

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Question Naugatuck-4:

Describe in detail contingency plans for wastewater processing in the event that the Naugatuck Wastewater Treatment Plant is closed for emergency or maintenance or upgrade?

Response:

In the event of a closing of the Naugatuck WWTP, CPV Towantic, LLC understands that the protocol for such an instance is governed by the Naugatuck WWTP and its National Pollutant Discharge Elimination System (NPDES) permit. However, CPV Towantic, LLC as an Oxford WPCA customer will use best efforts to minimize discharges during such circumstances. CPV Towantic, LLC's contingency plans specific to each individual type of wastewater are as follows:

- If the Facility operators know that wastewater cannot be discharged to the sewer, floors and equipment would not generally be washed down or drained. If any wastewater is collected in a building drain sump, it could be pumped into a truck and transported to a facility licensed to accept it.
- Stormwater collected in contained areas can be retained in those areas for as long as possible. Water levels would be monitored, and if the water level in those areas is too high, water can be pumped into a truck and transported to a facility licensed to accept it.
- Portable bathroom facilities typically used on construction sites could be used in the power plant in lieu of the on-site facilities for the duration of the contingency event.

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Question Naugatuck-5:

Does the effluent “grey water” override the plant and get discharged into the Naugatuck Wastewater Treatment Plant in the event of a treatment plant closing?

Response:

CPV Towantic, LLC does not understand this interrogatory.

As discussed in the response to Q-Naugatuck-3, Facility wastewater discharge streams do not result from the generating facility process, but are comprised of stormwater, domestic flows, and service uses. In the event of a closing of the Naugatuck WWTP, CPV Towantic, LLC understands that the protocol for such an instance is governed by the Naugatuck WWTP and its National Pollutant Discharge Elimination System (NPDES) permit. The response to Q-Naugatuck-4 outlines specific contingencies should such an event occur.

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Question Naugatuck-6:

What is the temperature of the wastewater released into the Oxford municipal sewer lines and Naugatuck Wastewater Treatment Plant at points 500 feet subsequent to the inlet point of the Naugatuck Wastewater Treatment Plant?

Response:

The temperature of wastewater discharged from the Facility will not be materially different from the balance of the wastewater conveyed to the Naugatuck Wastewater Treatment Plant via Oxford and other municipal sewer lines. As noted in response to Q-Naugatuck-3, the Facility's discharge is limited to stormwater, domestic water, and service water. These discharges will be at ambient temperatures that will not exceed those produced by a common domestic/commercial hot water heater.

Witness: Lynn Gresock

Question Naugatuck-7:

What is the quantity, scope and range of the particulate matter that will be discharged over the Borough?

Response:

The United States Environmental Protection Agency (USEPA) and Connecticut Department of Energy and Environmental Protection (DEEP) regulate particulate emissions in two size classifications, PM_{2.5} (particles that are 2.5 micrometers or less in size) and PM₁₀ (particles that are 10 micrometers or less in size). The Project's maximum potential to emit (PTE) for particulates is 154.7 tons per year. This amount is conservatively assumed to all be less than 2 micrometers in size; thus, the PTE for both PM_{2.5} and PM₁₀ is the same. The annual PTE for particulate emissions represents a state and federally enforceable restriction on the amount that may be discharged by the Project over any 12 month period into the atmosphere. In order to assess the Project's impact on air quality, annual emissions must be converted into a maximum ambient concentration, as discussed below.

The impact of the Project's maximum particulate emissions on air quality, including in the Borough of Naugatuck, was evaluated using air quality dispersion modeling conducted in accordance with USEPA and DEEP guidance. The maximum predicted concentrations of particulates occur immediately adjacent to the Project's fence line and drop off rapidly with distance in all directions. As shown on the table below, maximum predicted concentrations of both PM_{2.5} and PM₁₀ at any location within the Borough of Naugatuck are predicted to be less than USEPA-defined Significant Impact Levels (SILs). The USEPA has established SILs, screening levels at a tiny fraction of the health-based National Ambient Air Quality Standards (NAAQS), as impact levels deemed to be insignificant with respect to the NAAQS.

The modeling results, which are based on very conservative, worst-case conditions, indicate that existing particulate levels in the Borough of Naugatuck will not appreciably change.

Pollutant	Averaging Period	NAAQS ($\mu\text{g}/\text{m}^3$)	SIL ($\mu\text{g}/\text{m}^3$)	Maximum Impact in Naugatuck ($\mu\text{g}/\text{m}^3$)
PM ₁₀	24-hour	150	5	1.5
	Annual	NA	1	0.1
PM _{2.5}	24-hour	35	1.2	1.0
	Annual	12	0.3	0.1