



TOWN OF MERRIMACK, NH

PUBLIC WORKS DEPARTMENT

WASTEWATER TREATMENT FACILITY

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MEMORANDUM

To: Eileen Cabanel, Town Manager

Cc: Kyle Fox, Public Works Director
Phillip Appert, Pretreatment Manager

From: Sarita S. Croce, Assistant Director of Public Works/Wastewater

Date: July 13, 2020

Re: Summary of Saint-Gobain Issues

Executive Summary

Industrial Pretreatment (Sewer) Permit

- On January 6, 2020 the Town of Merrimack's Wastewater Treatment Facility issued the annual wastewater discharge permit to Saint-Gobain (SGPP).
- On February 5, 2020 SGPP submitted a Petition to Appeal the Permit issued by the Town.
- On February 27, 2020 the Town Council met to hear the appeal by SGPP representatives. SGPP failed to attend the appeal hearing and instead sent a letter three hours prior to the hearing, to Town Council. Due to the legal rules surrounding the appeal process, Town Council was required to review and rule on the appeal. The letter from SGPP was read into the record. Residents from the Town attended the hearing and submitted comments. A summary of the appeal was provided by Sarita Croce, Assistant Public Works Director – Wastewater. After significant discussion and review of the facts, the Town Council denied the appeal.
- Subsequent to the appeal denial on February 27, 2020, SGPP submitted a 91A request to the Town. This requires the Town, in the midst of a pandemic, to have their Ms. Croce spend countless hours scouring through emails and other documents. In addition, this request has cost the town over \$7,000 in legal fees to date in order to review those documents. On June 15, 2020, 3500 pages were sent to the SGPP consultant. The remainder of the request will be provided by September 15, 2020.
- Following the denial of the appeal by the Town Council, SGPP filed a complaint with Hillsborough Superior Court.

Both the appeal to the Town Council and the complaint filed with Superior Court identified the issues discussed in the section below.

Appeal & Complaint with Summary of Responses

1. **SGPP Allegation** - There are no federal or state standards that regulate PFAS in wastewater. Therefore any requirements included in their wastewater discharge permit are unlawful and

unenforceable. The complaint to Superior Court further states that the Town cannot lawfully impose a non-detect limit based on EPA or DES sludge or biosolids (such as compost) regulation.

Town's Response

While there are no standards for PFAS, all regulatory agencies are requiring the Town to complete analyses of the sludge and compost (biosolids) to evaluate the impact the distribution of compost would have on the proliferation of PFAS in the environment. Consequently, the Town is under intensive scrutiny due to the developing science related to PFAS exposure.

The Town currently processes sludge and generates a Class A compost for distribution. This compost meets Exceptional Quality Standards for general use in horticultural and agricultural industries. Merrimack's compost is approved by the following agencies:

- United States Environmental Protection Agency
- New York State DEC Class I
- MA DEP Type I unrestricted use. Valid: (7-12-2019 to 7-12-2024)
- New Hampshire DES Sludge Quality Certification NHSQC-9901 Class A for Low Metals - Valid: (April 15, 2020 to April 15, 2025)

Merrimack's compost facility is a \$15 million facility which was upgraded in 2016. The Town, because of composting, currently generates revenue ranging from \$750,000 to \$1 million per year. As a result of composting the Town also does not incur the cost of sludge disposal which is estimated to be \$2.5 million dollars when landfilled. The elimination of composting due to PFAS contamination would result in a significant increase in the sewer user rates for all users.

The Town's compost is regulated by EPA, NHDES, and Massachusetts Department of Environmental Protection. Pursuant these regulations, the Town is required to test for 10 PFAS compounds (PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFNA, PFBS, PFHxS, PFOS, PFDA). The basis for this requirement is the potential contamination of groundwater where compost is spread.

NHDES has also issued a PFAS Action Plan and scheduled monthly PFAS Biosolids Pollution Prevention meetings to address the PFAS issues in compost. NHDES clearly states that the single most important component of reducing PFAS in compost is pollution prevention.

On July 1, 2020, Massachusetts DEP (Mass DEP) notified the Town of new obligations related to the testing of compost for PFAS. Mass DEP can now require additional analysis for substance of concern. As of July 1st, Mass DEP is requiring quarterly sampling for PFAS in the Town's compost. The current permit from Mass DEP requires annual sampling. This information will be used to develop groundwater and soil clean-up standards for contaminated sites. Mass DEP proposed a Maximum Contaminant Level (MCL) for PFAS in drinking water and expects to finalize the regulations in the coming months. Mass DEP concurs with NHDES that the single most important component of reducing PFAS in compost is pollution prevention.

Finally, in accordance with Town of Merrimack Code 158-38 (B) No person(s) shall discharge or cause to be discharged any of the following described waters or wastes to any public sewers:

“(18) Any substance which may cause the POTW's effluent or treatment residues, biosolids or scums to be unsuitable for reclamation and reuse or which may interfere with such reclamation and reuse process....”

2. **SGPP Allegation** - SGPP has voluntarily installed a treatment system to remove PFAS from their process wastewater. SGPP believes that the permit issued on January 6, 2020 imposes a permit limit of “non-detect” for PFAS which is unlawful and unenforceable.

Town's Response

During the appeal, this issue was reviewed. Ms. Croce stated that the permit requires SGPP to only monitor and report PFAS. The permit references SGPP's permit application which states that the goal of the treatment system is to remove PFAS to non-detectable levels. The Findings of Facts document all the decisions which were made by Town Council on February 27th clearly states that the permit requires SGPP to monitor and report PFAS:

The Permit table of pretreatment limits lists PFAS Compounds with a limit of “report” and “Non detect/report*.” The asterisk by the second listing states: “Per Saint Gobain's Industrial Wastewater Indirect Discharge Request (IDR) Application received on October 31, 2018, the treatment system shall remove all PFAS compounds from process wastewater to non-detectable levels.”

The DPWW stated that this is a monitor and report requirement for PFAS which requires preparation of a Corrective Action Report when PFAS are detected.

Ultimately the permit was revised and reissued on June 1st. The revised permit corrected typographical errors. The corrections made include the following:

- Removed references to “non-detect” with regard to PFAS limits in the permit tables.
- Changed language in the permit regarding PFAS treatment goal:

“Per SGPP's Industrial Wastewater Indirect Discharge Request (IDR) Application received on October 31, 2018, the treatment system goal is to remove all PFAS compounds from process wastewater to non-detectable levels.

3. **SGPP Allegation** - The permit contains conditions which require SGPP to optimize the treatment system to ensure that all PFAS is removed. SGPP established a carbon filter change out frequency during the commissioning of the treatment system. SGPP believes that the frequency established does not need to be modified regardless of the detection of PFAS and filters need be changed when a certain number of gallons of wastewater are processed (2,200 gallons).

Town's Response

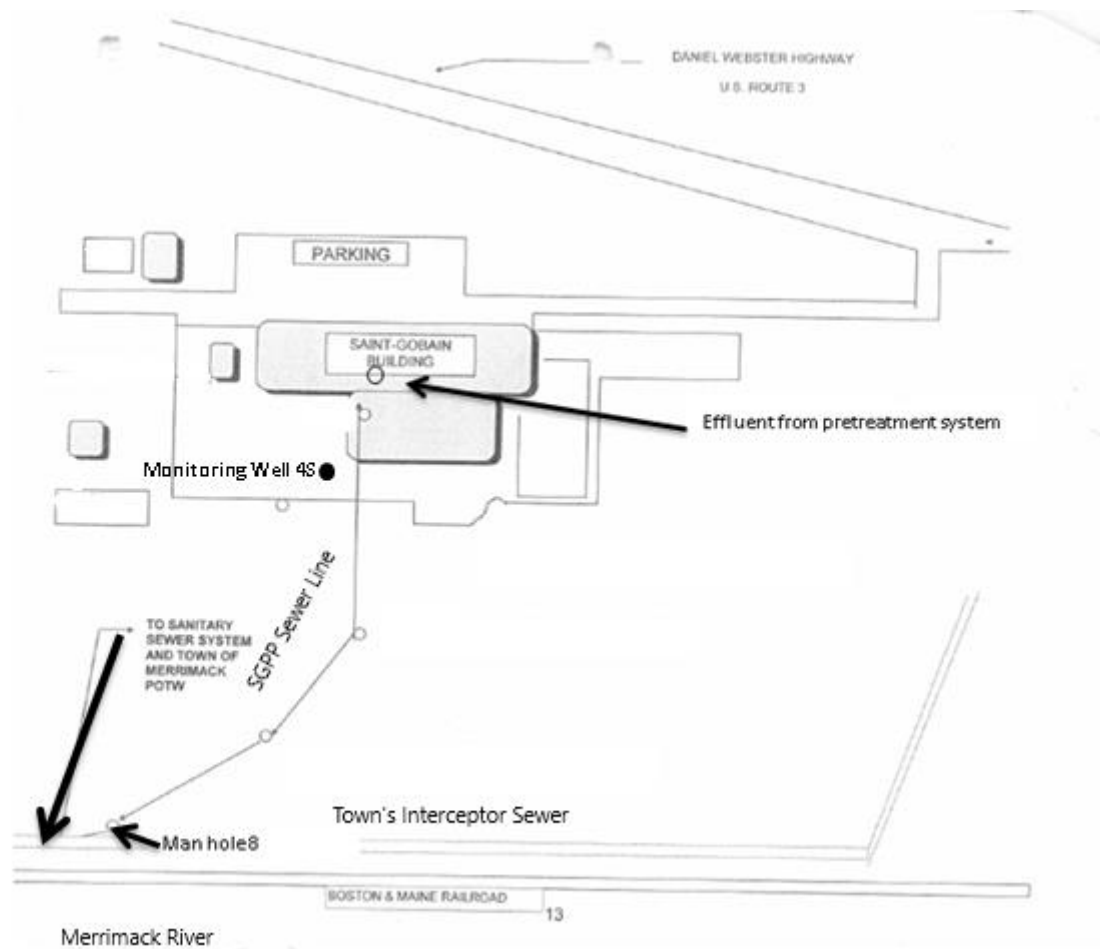
During the commissioning of the SGPP treatment system period, testing was conducted with a limited number of coating formulations. Given the large number and variability of their chemistry, it is inherent that they will need to determine the frequency of carbon filter changeout moving forward, and undertake optimization of the treatment system.

4. **SGPP Allegation** - MVD drinking water contains higher concentrations of PFAS than the wastewater discharged from SGPP's treatment system.

Town's Response

Figure 1 below provides a schematic diagram of the location of the treatment system, manhole 8, and monitoring well 4S which reported the highest PFOA concentration of 69,500 ppt in a groundwater sample collected on March 20, 2019. The groundwater on the property is heavily contaminated. During discussion with SGPP and NHDES, the Town has indicated that it is possible the groundwater is infiltrating into SGPP's sewer pipe.

Figure 1



The table below provides a summary of the wastewater sampled from Manhole 8.

Man Hole 8; Alpha Analytical Results:			
Parameter	30-Oct-19	21-May-20	17-Jun-20
PFHxS	386	5.82	4.15
PFOA	448	499	339
PFNA	19.6	16.5	28.2
PFOS	194	476	600
PFBA	228	75.9	86.5
PFPeA	1360	283	405
PFHxA	2340	560	900
PFHpA	160	99	60
PFBS	3	2.83	nd
PFDA	8.59	12.3	23.2
6:2FTS		84	88.9
PFHpS		3.25	7.32
PFUnA		2.76	8.96
FOSA		2.18	3.64
NEtFOSAA		43	98.8
8:2FTS			2.53
PFDoA			4.56
Total	5,147.19	2,165.54	2,660.76

The table below provides the results for Total PFAS and PFOA+PFOS in the drinking water from MVD and compares the results from the table above.

WELL NAME	SAMPLE DATE	NUMBER OF PFAS COMPOUNDS ANALYZED	TOTAL PFAS (ppt)	TOTAL PFAS (ppt) From Manhole 8	TOTAL PFOA + PFOS (ppt)	TOTAL PFOA + PFOS (ppt) From Manhole 8 Above Table
MVD-2	2/27/2019	27	11.4	Concentrations Ranges between 2,165 ppt (15 compounds) to 5,147 ppt (10 compounds)	8.4	Concentrations Ranges between 642 ppt to 975 ppt
MVD-2	1/17/2019	14	14.7		9.3	
MVD-3	2/27/2019	32	42.8		24.5	
MVD-3	1/17/2019	14	42.4		26.7	
MVD-7	2/27/2019	32	27.4		21.3	
MVD-7	1/17/2019	14	27.7		21.3	
MVD-8	2/27/2019	32	20.0		15.0	
MVD-8	1/17/2019	14	20.0		15.0	

As indicated in the table above, the total of all PFAS as tested by MVD ranges between 11.4 ppt to 42.8 ppt. For the wastewater at manhole 8, the total of all PFAS ranges between **2,165 ppt to 5,147 ppt**. The combined total of only PFOA/PFOS in MVD drinking water ranges between 8.4 ppt to 26.7 ppt. For the wastewater at manhole 8, the combined total of only PFOA/PFOS ranges between **642 ppt to 975 ppt**. The EPA's lifetime health advisory sets a combined limit of 70 ppt for PFOA and PFOS combined.

As indicated in the tables above, the PFAS concentrations in Manhole 8 are significantly higher than the PFAS concentrations in MVD drinking water.

5. **SGPP Allegation** - Per SGPP, the compliance sampling point for the PFAS is required to be at the effluent (end) from pretreatment system. The Town does not have the authority to sample at manhole 8 which is the last manhole prior to the discharge to the Town's sewer.

Town's Response

First and foremost, the Town is authorized as part of the EPA Pretreatment Program to sample at manhole 8 (see Figure 1). The purpose of sampling in the pretreatment program is to determine the characteristics of wastewater being sent to Merrimack's sewer and ultimately the wastewater treatment facility. Sampling locations are determined based on the ability to ascertain the wastewater quality and assess compliance. Given the groundwater contamination discussed in the previous section, the best location to determine the quality of wastewater which the Town is receiving is manhole 8. In addition, any permit can require sampling at multiple locations to assess compliance. Finally, it should be noted that the Town has sampled in the past at manhole 8. In this case, sampling will be required at both the effluent (end) from pretreatment system and manhole 8 moving forward.

6. **SGPP Allegation** - SGPP states that their wastewater contribution to the Town's Wastewater Treatment Facility is negligible and therefore SGPP's discharge is a non-issue. Based on SGPP's calculation, they contribute 0.01% of the PFAS discharged to the sewer system; the Town has not imposed any permit limits to any other entity discharging to the Town sewer system.

Town's Response

See response to SGPP allegation #1.

The Town has implemented an EPA approved Pretreatment Program. The objective of the Pretreatment Program is to prevent the introduction of pollutants to a POTW (sewerage system and treatment works) that may cause Pass Through or Interference or otherwise compromise the distribution of biosolids. The ultimate goal of the Pretreatment Program is to protect wastewater operations, biosolids generation, and public health. It is through this program that the Town is addressing PFAS. To date the Town has taken the following action through the Pretreatment Program:

- Denied an industrial discharge permit.

- Required multiple facilities to sample for PFAS prior to the issuance of a permit. The companies evaluated to date all discharge PFAS at non-detectable levels.
- Currently evaluating commercial facilities within Merrimack (such as car washes) to identify alternatives for cleaning chemicals.
- No longer accept septage from carwashes, fire stations, and facilities which engage in floor waxing (e.g. school and Walmart) outside of the Town of Merrimack.
- Reviewing wastewater treatment facility sludge PFAS data collected by NHDES at wastewater treatment facilities throughout the state. The data is reviewed as part of an extensive evaluation process prior to accepting any sludge from outside communities.

Original Air Permit Appeal by Town

On February 11, 2020 the New Hampshire Department of Environmental Services, Air Resources Division (NHDES) issued a Temporary Air permit (Permit No. TP-0256) for Saint-Gobain Performance Plastics.

The Town of Merrimack Town Council submitted an appeal through our attorney on March 10, 2020. The appeal objected to the air permit because it was not protective to the public and allows for uncontrolled emissions of PFAS, Gen-X, and HF.

Will finish this update tomorrow.

Variance Request by SGPP

On June 4, 2020, SGPP requested that a variance be granted for that deadline. The request is based on either a one-year extension from the deadline established by the Permit (i.e. February 11, 2022), or the date of a Town of Merrimack's appeal decision (whichever is earlier).

The variance is based on two sets of circumstances. One request is due to the appeal submitted by the Town of Merrimack, and the other is based on the coronavirus. Based on a technical review of the variance, the Town has concluded that the appeal submitted does not question the key design parameters including combustion temperature of 1832°F, residence time, or the fan size. Therefore, the design of the RTO will not be impacted by the appeal.