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August 1, 2019 ***Via Email***

Mr. William Shaw, P.G.
Section C, Remedial Bureau B
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
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RE: Trial IRM System Operations Results
IRM Groundwater Capture and Treatment System
McCaffrey Street Site, 14 McCaffrey Street
Village of Hoosick Falls, Rensselaer County
DEC Site No.: 442046

Dear Mr. Shaw:

This trial operations report has been prepared on behalf of Saint-Gobain Performance Plastics Corporation and Honeywell International, Inc. (the "Respondents") in accordance with Section XIII of Appendix A of the Order On Consent and Administrative Settlement (Index No. CO 4-20160212-18, the "Order"), and in compliance with the Interim Remedial Measure Work Plan (IRM WP) for groundwater capture and treatment at the McCaffrey Street Site. The IRM WP was approved by New York State Department of Environmental Conservation (NYSDEC) on April 4, 2019.

On July 19, 2019, a trial operation of the IRM treatment system was performed and included the collection of an influent sample, and midpoint and effluent samples from both GAC treatment trains 1 and 2 in accordance with the NYSDEC Discharge Permit Equivalent. The system operated for approximately three hours at approximately 7 gallons per minute, pumping groundwater from both extraction wells PW04 and PW19. Approximately 1,000 gallons of groundwater was generated (500 gallons through each treatment train) and containerized on-site. The treated water remains on-site pending NYSDEC approval to discharge to the IRM system outfall.

System samples were collected for laboratory analysis from the influent, midpoint, and effluent sampling ports of treatment train 1. Samples were also collected from the midpoint and effluent sampling ports of treatment train 2. The influent sample collected from treatment train 1 is representative the untreated groundwater processed by both treatment trains. The field parameter and the laboratory analytical results are summarized in the attached table.

In conformance with the limitations and monitoring requirements of the NYSDEC Discharge Permit Equivalent, perfluorooctanoic acid (PFOA) and prefluorooctanesulfonic acid (PFOS) were not detected in the midpoint sample of either treatment train. The effluent sample results were also within NYSDEC Discharge Permit Equivalent limitations for flow rate, pH, total suspended solids, settleable solids, total dissolved solids, oil and grease, and dissolved oxygen.

Based on these findings, we request approval to commence operation of the treatment system, and discharge of containerized water generated during the trial system operation. The system will be operated in manual mode until the programmable logic controller (PLC) is installed something in mid-August. During this period the system will be monitored daily.

Respectfully submitted,
C.T. MALE ASSOCIATES

Kirk Moline, PG
Managing Geologist

Attachment: Table 1, IRM Trial Operation Test Results

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Table 1
IRM Trial Operation Test Results
McCaffrey Street Site
Hoosick Falls, New York

Location		IRM-T1-INF	IRM-T1-MID	IRM-T1-EFF	IRM-T2-MID	IRM-T2-EFF	Discharge Limitations [1]
Date		07/19/2019	07/19/2019	07/19/2019	07/19/2019	07/19/2019	
Data Status		QC Pending	QC Pending	QC Pending	QC Pending	QC Pending	
Sample Name		SG1-IRM-T1-INF-190719	SG1-IRM-T1-MID-190719	SG1-IRM-T1-EFF-190719	SG1-IRM-T2-MID-190719	SG1-IRM-T2-EFF-190719	
Parameter	Units						
Per- and Polyfluoroalkyl Substances							
6:2 Fluorotelomer sulfonate (6:2 FTS)	ng/l	4.5 U	4.3 U	4.4 U	4.5 U	4.4 U	NA
8:2 Fluorotelomer sulfonate (8:2 FTS)	ng/l	2.7 U	2.6 U	2.6 U	2.7 U	2.6 U	NA
n-Ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ng/l	2.7 U	2.6 U	2.6 U	2.7 U	2.6 U	NA
n-Methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	ng/l	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluorobutane sulfonate (PFBS)	ng/l	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluorobutanoic acid (PFBA)	ng/l	**7.1**	4.3 U	4.4 U	4.5 U	4.4 U	NA
Perfluorodecane sulfonate (PFDS)	ng/l	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluorodecanoic acid (PFDA)	ng/l	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluorododecanoic acid (PFDoA / PFDoDA)	ng/l	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluoroheptane sulfonate (PFHpS)	ng/l	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluoroheptanoic acid (PFHpA)	ng/l	**23**	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluorohexane sulfonate (PFHxS)	ng/l	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluorohexanoic acid (PFHxA)	ng/l	**18**	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluorononanoic acid (PFNA)	ng/l	**2.0**	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluorooctanesulfonamide (PFOSA / FOSA)	ng/l	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluorooctanesulfonate (PFOS)	ng/l	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	< LCMRL
Perfluorooctanoic acid (PFOA)	ng/l	**1,200**	1.7 U	1.8 U	1.8 U	1.7 U	< LCMRL
Perfluoropentanoic acid (PFPeA)	ng/l	**7.9**	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluorotetradecanoic acid (PFTA / PFTeDA / PFTeA)	ng/l	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluorotridecanoic acid (PFTrDA / PFTriA)	ng/l	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	NA
Perfluoroundecanoic acid (PFUnA / PFUnDA)	ng/l	1.8 U	1.7 U	1.8 U	1.8 U	1.7 U	NA
General Chemistry							
Oil & Grease, Hem-Grav*	ug/l	--	--	2200 U	--	2000 U	< 15000
General Parameters							
pH	SU	--	--	**8.2**	--	**8.6**	6.0-9.0
Solids, total dissolved	mg/l	--	--	**351**	--	**440**	Monitor
Solids, total suspended	mg/l	--	--	1.00 U	--	1.00 U	< 50
Solids, settleable	ml/l/hr	--	--	0.10 U	--	0.10 U	< 0.1
General Field Parameters							
Flow Rate				**6.8 gpm**		**6.8 gpm**	< 72,000/day
Dissolved Oxygen	mg/l	--	--	**12**	--	**12**	> 6

Notes:
-- Not Analyzed.
T1 denotes Treatment Train 1, GAC Vessels 1 & 2
T2 denotes Treatment Train 2, GAC Vessels 3 & 4
* denotes sample collected on June 26, 2019
LCMRL: Lowest Concentration Minimum Reporting Level; equivalent to Limit of Quantitation (LOQ).
NA: Not Applicable
[1] NYSDEC Discharge Permit Equivalent for Saint-Gobain McCaffrey Street (442046), March 13, 2019

Units and Lab-Applied Qualifiers:
J: Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL).
U: Analyte was not detected at the value indicated.
ng/l: nanograms per liter, or parts per trillion (ppt)
ug/l: micrograms per liter or parts per billion (ppb)
mg/l: milligram per liter or parts per million (ppm)
mg/l/hr: milligrams per liter per hour
deg C: degrees Celsius
SU: standard units
gpm: gallons per minute