



September 18, 2018

Mark Austin, P.E.
Town of Hamden
2750 Dixwell Avenue
Hamden, CT 06518

RE: 2018 QUARTERLY STORMWATER MONITORING REPORTING, DEPARTMENT OF PUBLIC WORKS, VOED AND TRANSFER STATION, HAMDEN, CT (HRP #HAM4063.WM)

Dear Mr. Austin:

Attached please find the Stormwater Monitoring Report (SMR) for the quarterly stormwater monitoring attempted by HRP Associates, Inc. (HRP) at the above mentioned facilities for the period covering April 1, 2018 through June 30, 2018. As indicated in the SMR, no qualifying quarterly samples were collected at the Transfer Station during the April 1, 2018 – June 30, 2018 monitoring period. Quarterly visual monitoring is also required under the General Permit at the three facilities (Department of Public Works, VOED and Transfer Station) but could not be conducted during the April 1, 2017- June 30, 2018 monitoring period. Though HRP monitored for storm events during this period, most rain events occurred outside of normal business hours when the facilities were closed.

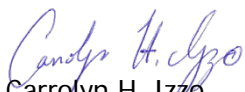
During the current monitoring period (July 1, 2018- September 30, 2018), HRP will attempt to conduct quarterly visual monitoring at the three facilities along with quarterly sampling at the Transfer Station for iron.

The SMR for the sample collection attempt are included in Attachment 1. Please sign the "Statement of Certification" on page 3 of the SMR, make a copy for your records, and submit the signed SMR to CT DEEP to the address below by September 30, 2018:

Water Toxic Program Coordinator
Bureau of Water Protection and Land Reuse
CT Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

If you have any questions or require additional information, please feel free to contact HRP at (860) 674-9570.

Sincerely,


Carolyn H. Izzo
Project Geologist


Darin Lemire, PE
Project Manager

Attachments

cc: Joe Colello, Public Works Dept., 1125 Shepard Avenue, Hamden, CT 06514

ATTACHMENT 1

Stormwater Monitoring Report (for submission to CT DEEP)



**General Permit for the Discharge of Stormwater Associated with
Industrial Activity, effective 10/1/2011
Stormwater Monitoring Report Form
Sector C – Refuse Systems**

Facility Information

Permittee Name: Town of Hamden Site Name: Hamden Landfill, Trans. Sta. & Recyc. Ctr
 Mailing Address: 2750 Dixwell Ave., Hamden, CT 06514
 Contact Person: Mark Austin Title: Town Engineer
 Business Phone: (203) 287-7040 ext.: Email: MAustin@Hamden.com
 Site Address: 231 Wintergreen Ave., Hamden, CT 06514
 Receiving Water (name/basin): Wintergreen Brook (Basin No. 5304)
 Permit #: GSI 001681 Primary SIC: 4953
 Discharges into an Impaired Waterbody: Yes No (If yes, complete the table on page 3 of this form)

Sample Information

Sample Location: Outfall 001 (Not Sampled) Person Collecting Sample: No Sample Collected
 Date/Time Collected: No Sample collected Date of Previous Storm Event: No Sample Collected
 This report is for samples required: Semi-annually Annually Other
 Check here if the sample contains **snow or ice melt**:
 Check here if a benchmark exceedance is solely due to background or off site sources see note below

Monitoring Results

*Parameter	Required Frequency	Results (units)	Benchmark	Effluent Limit	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Oil & Grease	Semi-annual	Exempt	5.0 mg/L	n/a	<input type="checkbox"/>		
Rainfall pH	Semi-annual	Exempt	n/a	n/a	<input type="checkbox"/>		
Sample pH	Semi-annual	Exempt	5-9 SU	*			
COD	Semi-annual	NA	75 mg/L	n/a	<input type="checkbox"/>		
TSS	Semi-annual	NA	90 mg/L	*	<input type="checkbox"/>		
TP	Semi-annual	NA	0.40 mg/L	n/a	<input type="checkbox"/>		
TKN	Semi-annual	NA	2.30 mg/L	n/a	<input type="checkbox"/>		
NO ₃ -N	Semi-annual	Exempt	1.10 mg/L	n/a	<input type="checkbox"/>		
Total Copper	Semi-annual	NA	0.059 mg/L	n/a	<input type="checkbox"/>		
Total Zinc	Semi-annual	NA	0.160 mg/L	*	<input type="checkbox"/>		
Total Lead	Semi-annual	NA	0.076 mg/L	n/a	<input type="checkbox"/>		
24 Hr. LC ₅₀	Annual-Year 1&2	NA	n/a	n/a		NA	NA
48 Hr. LC ₅₀	Annual-Year 1&2	NA	n/a	n/a		NA	NA

* See Additional Sector C Monitoring Section on page 3 of this form.

Exemptions

List here any parameter(s) that will not be sampled for the remainder of the permit term: see note below
O&G, pH, NO3-N

NOTE: Complete the "Data Tracking Table" (page 4 on this form) to show the parameter is eligible for the monitoring exemption in Section 5(e)(1)(B)(iii) of the general permit. If you are discontinuing monitoring for impaired water parameters (per Section 5(e)(1)(D)), or parameters that are present due to natural or background levels or off site run-on (per Section 5(e)(1)(B)(V)), attach additional supporting information to this form.

STORMWATER ACUTE TOXICITY TEST DATA SHEET
 (required annually only during Year 1 and Year 2 of the permit)

Site Name: Hamden Landfill, Transfer Station and Recycling Center	
Date/Time Begin:	Date/Time End:
Sample Hardness:	Sample Conductivity:
Test Species: <i>Daphnia pulex</i> < 24 hrs old	Dilution Water Hardness:

Effluent Dilution	Number of Organisms Surviving			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (su)			
	Hour	00	24	48	00	24	48	00	24	48	00	24	48
CONTROL 1													
CONTROL 2													
CONTROL 3													
CONTROL 4													
6.25% A													
6.25% B													
6.25% C													
6.25% D													
12.5% A													
12.5% B													
12.5% C													
12.5% D													
25% A													
25% B													
25% C													
25% D													
50% A													
50% B													
50% C													
50% D													
100% A													
100% B													
100% C													
100% D													

REFERENCE TOXICANT RESULTS

Test Species	Date	Reference Toxicant	Source	LC ₅₀
<i>Daphnia pulex</i>				

Additional Monitoring: Sector C – Landfills and Solid Waste Disposal Areas Only


Parameter	Required Frequency	Results (Units)	Benchmark	Effluent Limit	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Total Iron	Quarterly		1 mg/L	n/a	<input type="checkbox"/>		
Effluent Samples*							
BOD	Annually for the entire permit term		n/a	140 mg/L	<input type="checkbox"/>		
TSS	Annually for the entire permit term		n/a	88 mg/L	<input type="checkbox"/>		
Ammonia	Annually for the entire permit term		n/a	10 mg/L	<input type="checkbox"/>		
Alpha Terpineol	Annually for the entire permit term		n/a	0.033 mg/L	<input type="checkbox"/>		
Benzoic Acid	Annually for the entire permit term		n/a	0.12 mg/L	<input type="checkbox"/>		
p-Cresol	Annually for the entire permit term		n/a	0.025 mg/L	<input type="checkbox"/>		
Phenol	Annually for the entire permit term		n/a	0.026 mg/L	<input type="checkbox"/>		
Total Zinc	Annually for the entire permit term		n/a	0.200 mg/L	<input type="checkbox"/>		
Sample pH	Annually for the entire permit term		n/a	6-9 mg/L	<input type="checkbox"/>		

*Annual samples may be taken at the same time as one of the semi-annual samples for the general sampling parameters. An effluent limit applies to any single sample (not average of 4).

Additional Monitoring for Discharges to Impaired Waters (if applicable)

Parameter	Required Frequency	Results (units)	Test Method	Laboratory Name

Statement of Certification

<p>"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."</p>	
Signature of Permittee	Date
Mark Austin, P.E.	Town Engineer
Name of Permittee (print or type)	Title (if applicable)
	9/17/2017
Signature of Preparer (if different than above)	Date
Carrolyn Izzo, HRP Associates, Inc.	Project Geologist
Name of Preparer (print or type)	Title (if applicable)

Please send all completed forms to:

WATER TOXICS PROGRAM COORDINATOR
 BUREAU OF WATER PROTECTION AND LAND REUSE
 CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
 79 ELM STREET
 HARTFORD, CT 06106-5127

**General Permit for the Discharge of Stormwater Associated with
Industrial Activity, effective 10/1/2011**

Data Tracking Sheet

Sector C –Refuse Systems

Permittee Name: <u>Town of Hamden</u>	Permit #: GSI <u>001681</u>
Site Name: <u>Hamden Landfill, Transfer Station and Recycling Center</u>	
Site Address: <u>Wintergreen Brook (Basin No. 5304)</u>	
Sample Location: <u>Outfall 001</u>	

Enter the sample dates and the data reported for the four (4) most recent semi-annual or quarterly monitoring sample results at this discharge location in the chart below. To determine the average for the four samples add up each of the four results and then divide that number by 4. **Only monitoring collected under the current permit (effective 10/1/11,) can be used to earn the monitoring exemption.**

$$\text{Average} = \frac{(\text{Sample 1} + \text{Sample 2} + \text{Sample 3} + \text{Sample 4})}{4}$$

Parameter	Sample Result				Average	Benchmark**	Qualify for exemption?
	1	2	3	4			
Sample Date	11/16/17	1/12/18					
O&G	Exempt	Exempt			Exempt	5.0 mg/L	Yes, previously
Sample pH*	Exempt	Exempt			Exempt	5-9 S.U.	Yes, previously
COD	430 mg/L	190 mg/L			310	75 mg/L	No
TSS*	400 mg/L	260 mg/L			330	90 mg/L	No
TP	0.90 mg/L	1.0 mg/L			0.95	0.4 mg/L	No
TKN	3.5 mg/L	2.2 mg/L			2.85	2.30 mg/L	No
NO ₃ -N	Exempt	Exempt			Exempt	1.10 mg/L	Yes, previously
Total Copper	<0.030 mg/L	<0.020 mg/L			<0.030	0.059 mg/L	No
Total Zinc*	0.11 mg/L	0.080 mg/L			0.095	0.16 mg/L	No
Total Lead	0.039 mg/L	0.035 mg/L			0.037	0.076 mg/L	No
Total Iron	10 mg/L	11 mg/L			10.5	1.0 mg/L	No

**If the average of the four (4) most recent samples is less than the benchmark listed, your facility is no longer required to sample semi-annually or quarterly for that parameter for the rest of the permit (current permit expires 9/30/2016).

If the average of the four (4) most recent samples is equal to or greater than the benchmark listed, check the appropriate box on page 1. If so, you have exceeded the benchmark and must continue to sample this parameter semiannually until the average is below the benchmark. See Section 5(e)(1)(B) of the General permit for requirements when exceeding a benchmark.

If the sample result reported by the testing laboratory was below detection limit, for the purpose of averaging, use a value that is ½ the detection limit for that parameter in the formula above. For example, if the result for Oil & Grease was <2.0 mg/L, use a value of 1.0 mg/L for determining the average. Please refer to Section 5 e(1)B(iii) for a more detailed explanation.

*Due to effluent limits, landfills and solid waste disposal areas within Sector C are required to monitor annually for nine parameters including sample pH, TSS and Zinc for the entire permit term. The pH of uncontaminated rainfall is also recommended to provide background information. See additional

monitoring for landfills and solid waste disposal areas within Sector C on page 2 of this form for this list of parameters.