

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

OFFICE OF COMPLIANCE & INSPECTION

**IN RE: City of Woonsocket
SYNAGRO WOONSOCKET, LLC**

**FILE NO.: OCI-WP-17-15
X-ref RIPDES Permit RI0100111
RIPDES Referral #16-03**

NOTICE OF VIOLATION

A. Introduction

Pursuant to Sections 42-17.1-2(21) and 42-17.6-3 of the Rhode Island General Laws, as amended, (“R.I. Gen. Laws”) you are hereby notified that the Director of the Department of Environmental Management (the “Director” of “DEM”) has reasonable grounds to believe that the above-named parties (“Respondents”) have violated certain statutes and/or administrative regulations under the DEM’s jurisdiction.

B. Facts

- (1) The City of Woonsocket (“Woonsocket”) owns a wastewater treatment facility located on Cumberland Hill Road in the City of Woonsocket, Rhode Island (the “Facility”). The Facility includes a sewage sludge incinerator (the “Incinerator”).
- (2) CH2M operates the Facility, excluding the Incinerator, on behalf of Woonsocket.
- (3) SYNAGRO WOONSOCKET, LLC (“Synagro”) operates the Incinerator under a long-term lease with Woonsocket.
- (4) On 18 September 2008, the DEM issued to Woonsocket Rhode Island Pollutant Discharge Elimination System (“RIPDES”) Permit No. RI0100111 (the “RIPDES Permit”), which became effective on 1 October 2008. The RIPDES Permit authorizes Woonsocket to discharge treated wastewater from the Facility to Blackstone River.
- (5) The RIPDES Permit requires Woonsocket to:
 - (a) Comply with a discharge limit for nitrogen of 10.0 parts per million (“ppm”) as a monthly average for April and 3.0 ppm as a monthly average for May through October (the “Final Nitrogen Limit”);
 - (b) Comply with a discharge limit for ammonia of 12.0 ppm as a monthly average for May (the “Final Ammonia Limit”);
 - (c) Comply with a discharge limit for phosphorous of 0.1 ppm as a monthly average for April through October (the “Final Phosphorous Limit”); and

- (d) Summarize monitoring results obtained during the previous month and report these results to the DEM in a Discharge Monitoring Report (“DMR”).
- (6) On 3 March 2011, the DEM and Woonsocket entered into a Consent Agreement (the “2011 Agreement”) to resolve, among other issues, noncompliance with the Final Nitrogen Limit and Final Phosphorous Limit.
- (7) The 2011 Agreement established an interim limit for nitrogen of 10.0 ppm as a monthly average for May through October (the “Interim Nitrogen Limit”) and an interim limit for phosphorous of 1.0 ppm as a monthly average for April through October (the “Interim Phosphorous Limit”). These limits were in effect until 1 April 2017, when Woonsocket completed construction of new equipment at the Facility to achieve compliance with the Final Nitrogen Limit and Final Phosphorous Limit.
- (8) On 10 October 2014, the DEM issued Modified Order of Approval No. 1507 to Synagro for a management plan for the Incinerator (the “Incinerator Plan”). The plan states that Synagro will:
 - (a) Retain a 30-degree Celsius temperature within the Facility aeration tanks as an operational target;
 - (b) Have a 119-degree Fahrenheit temperature target for the wastewater flow from the Incinerator to the Facility (the “Return Flow”); and
 - (c) Make all reasonable efforts within their control to minimize sudden shutdowns of the cooling equipment to reduce large fluctuations in temperature within the Facility.

The plan further states that if temperatures in the aeration tanks go over 30-degree Celsius, it would not be viewed as a compliance issue if the treated wastewater discharged to Blackstone River met the discharge limits for nitrogen and phosphorous.

- (9) On 13 May 2015, 15 June 2015, 13 July 2015, 13 August 2015, 14 September 2015 and 13 November 2015, James Lauzon (“Lauzon”), the CH2M Project Manager, submitted the DMRs for April 2015 through August 2015 and October 2015. The reports stated the following:
 - (a) The monthly average for nitrogen was 19 ppm and 32 ppm for April and May, respectively, which exceeded the Final Nitrogen Limit for April and the Interim Nitrogen Limit for May;
 - (b) The monthly average for ammonia was 24.3 ppm for May, which exceeded the Final Ammonia Limit;

- (c) The monthly average for phosphorous was 2 ppm, 1.5 ppm, 2.2 ppm, 1.2 ppm and 3.5 ppm for April, June, July, August and October, respectively, which exceeded the Interim Phosphorous Limit for each month;
 - (d) The exceedances for April and May were caused by, among other factors, higher than normal cyanide levels in the Return Flow (the “High Cyanide”); and
 - (e) The exceedances for June, July, August and October were caused by, among other factors, significant temperature fluctuations in the Return Flow (the “Temperature Fluctuations”).
- (10) On 4 June 2015, the DEM inspected the Facility and spoke with Wes Plummer (“Plummer”), the Incinerator Manager for Synagro. The DEM agent was told that:
- (a) Plummer was not denying that the Incinerator is the source of the High Cyanide; and
 - (b) Synagro is working with Woonsocket to address this issue.
- (11) On 19 August 2015, the DEM inspected the Facility and spoke with Plummer. The DEM agent was told that:
- (a) Synagro reduced sludge throughput to minimize the Temperature Fluctuations;
 - (b) One heat exchanger is leaking water and was shut down and the other exchanger was recently taken down for maintenance but is still not operating as well as they think it should;
 - (c) There are dead zones in the sand in the Incinerator, and he believes the dead zones may be the cause of the High Cyanide;
 - (d) The sand is supposed to be replaced every 1 or 2 years, and it has been 3 years since the last replacement;
 - (e) The duct work for the ID fan was recently found to be severely undersized; and
 - (f) The Incinerator will be shut down for 9 days in the next few weeks to replace the sand.

- (12) On 15 October 2015, the DEM inspected the Facility and spoke with Lauzon and Plummer. The DEM agent was told that:
 - (a) The aeration tanks had a temperature drop from 32-degree Celsius to 22-degree Celsius;
 - (b) Lauzon believes the Temperature Fluctuations have contributed to the phosphorous exceedances; and
 - (c) Synagro had to shut down the boiler for the Incinerator for emergency repairs, which Plummer attributed to the temperature drop in the aeration tanks.
- (13) The DEM received temperature data from CH2M and Synagro for the aeration tanks at the Facility and the Return Flow, respectively, for calendar year 2015. The data revealed the following:
 - (a) The temperatures in the aeration tanks exceeded 30-degree Celsius on numerous days in July 2015, August 2015 and October 2015;
 - (b) The temperatures in the Return Flow exceeded 119-degree Fahrenheit on numerous days in July 2015, August 2015 and October 2015; and
 - (c) The temperatures in the aeration tanks had fluctuations of approximately 10-degree Celsius on or about the following dates: 22-23 June 2015, 1-3 August 2015, 24 August-September 6 2015, 29-30 September 2015, 12-13 October 2015, 25-26 October 2015, 9-10 November 2015 and 19-24 November 2015.
- (14) Blackstone River is classified in the DEM's *Water Quality Regulations* as Class B1. Class B1 waters are designated for primary and secondary contact recreational activities and fish and wildlife habitat and have good aesthetic value.
- (15) The Final Phosphorous Limit is a water quality based limit established to meet the water quality standards in the DEM's *Water Quality Regulations* for Blackstone River.
- (16) Blackstone River does not meet its assigned water quality designation according to the DEM's *2014 Integrated Water Quality Monitoring and Assessment List Final May 2015*. Among the causes of the impairment is phosphorous, which is associated with wastewater.
- (17) The exceedances reported in the DMRs for phosphorous further degraded Blackstone River.
- (18) The DEM has determined that Synagro caused or contributed to the exceedances reported in the DMRs for April and May by failing to properly maintain the Incinerator.

- (19) The DEM has determined that Synagro caused or contributed to the exceedances reported in the DMRs for June, July, August and October by failing to comply with its Incinerator Plan.

C. Violation

Based on the foregoing facts, the Director has reasonable grounds to believe that you have violated the following statutes and/or regulations:

- (1) **R.I. Gen. Laws Section 46-12-5(b)** – requiring the discharge of any pollutant into waters of the State comply with the terms and conditions of a permit and applicable regulations.
- (2) **DEM’s *Water Quality Regulations***
 - (a) **Rule 9(A)** – prohibiting the discharge of pollutants into any waters of the State or any activity alone or in combination which the DEM determines will likely result in the violation of any State water quality criterion or interfere with one or more of the existing or designated uses assigned to the receiving waters.
 - (b) **Rule 9(B)** – prohibiting the discharge of pollutants in concentrations that will further degrade the water quality of an impaired waterbody.
 - (c) **Rule 11(B)** – requiring the discharge of pollutants into the waters of the State comply with the terms and conditions of a permit issued by the DEM.
 - (d) **Rule 13(A)** – prohibiting the discharge of any pollutant into or conducting any activity which will likely cause or contribute pollution to the waters of the State.
 - (e) **Rule 16(A)** – mandating compliance with all terms, conditions, management practices and operation and maintenance requirements set forth in a permit.
- (3) **DEM’s *Regulations for the Rhode Island Pollutant Discharge Elimination System, Rule 14.02(a)*** – requiring the permittee to comply with all conditions of the permit.

(4) **DEM's Rules and Regulations for Sewage Sludge Management**

- (a) **Rule 6(A) (recently amended to Part 3.6A)** – requiring a facility to properly operate and maintain all equipment and systems.
- (b) **Rule 7(A) (recently amended to Part 3.7A)** – requiring operation of a facility in accordance with the application for order of approval, the approval and the management plan.

D. Order

Based upon the violations alleged above and pursuant to R.I. Gen. Laws Section 42-17.1-2(21), Synagro is hereby ORDERED to:

- (1) **Within 60 days of receipt of the NOV**, submit to the DEM a revised Incinerator Plan that includes, but is not limited to, the following:
 - (a) Monitoring and recordkeeping requirements for key indicators for the sand life expectancy;
 - (b) References to the manufacturer's O&M manual; and
 - (c) Use of rental or temporary cooling systems to provide sufficient cooling capacity to maintain aeration tank temperature at the Facility at or below 30-degree Celsius.
- (2) The plan required in Section D (1) above shall be subject to the DEM's review and approval. Upon review, the DEM shall provide written notification to you either granting formal approval or stating the deficiencies therein. Within 14 days (unless a longer time is specified) of receiving a notification of deficiencies, you must submit to the DEM additional information necessary to correct the deficiencies.

E. Penalty

- (1) Pursuant to R.I. Gen. Laws Section 42-17.6-2, the following administrative penalty, as more specifically described in the attached penalty summary and worksheets, is hereby ASSESSED against Synagro:

\$175,000

- (2) The proposed administrative penalty is calculated pursuant to the DEM's *Rules and Regulations for Assessment of Administrative Penalties*, as amended, and must be paid to the DEM within 30 days of your receipt of the NOV. Payment shall be in the form of a certified check, cashiers check or money order made payable to the "General Treasury - Water & Air Protection Program Account" and shall be forwarded to the DEM Office of Compliance and Inspection, 235 Promenade Street, Suite 220, Providence, Rhode Island 02908-5767.
- (3) Penalties assessed against Respondent in the NOV are penalties payable to and for the benefit of the State of Rhode Island and are not compensation for actual pecuniary loss.

G. Right to Administrative Hearing

- (1) Pursuant to R.I. Gen. Laws Chapters 42-17.1, 42-17.6, 42-17.7 and 42-35, each named respondent is entitled to request a hearing before the DEM's Administrative Adjudication Division regarding the allegations, orders and/or penalties set forth in Sections B through E above. All requests for hearing MUST:
 - (a) Be in writing. See R.I. Gen. Laws Sections 42-17.1-2(21)(i) and 42-17.6-4(b);
 - (b) Be **RECEIVED** by the DEM's Administrative Adjudication Division, at the following address, within 20 days of your receipt of the NOV. See R.I. Gen. Laws Sections 42-17.1-2(21)(i) and 42-17.7-9:

Administrative Clerk
DEM - Administrative Adjudication Division
235 Promenade Street, Room 350
Providence, RI 02908-5767
 - (c) Indicate whether you deny the alleged violations and/or whether you believe that the administrative penalty is excessive. See R.I. Gen. Laws Section 42-17.6-4(b); **AND**
 - (d) State clearly and concisely the specific issues which are in dispute, the facts in support thereof and the relief sought or involved, if any. See Part 1.7(B) of the DEM's *Administrative Rules of Practice and Procedure for the Administrative Adjudication Division for Environmental Matters*.

- (2) A copy of each request for hearing must also be forwarded to:

Tricia Quest, Esquire
DEM - Office of Legal Services
235 Promenade Street, 4TH Floor
Providence, RI 02908-5767

- (3) Each named respondent has the right to be represented by legal counsel at all administrative proceedings relating to this matter.
- (4) Each respondent must file a separate and timely request for an administrative hearing before the DEM's Administrative Adjudication Division as to each violation alleged in the written NOV. If any respondent fails to request a hearing in the above-described time or manner regarding any violation set forth herein, then this NOV shall automatically become a Final Compliance Order enforceable in Superior Court as to that respondent and/or violation and any associated administrative penalty proposed in the NOV shall be final as to that respondent. See R.I. Gen. Laws Sections 42-17.1-2(21)(i) and (vi) and 42-17.6-4(b) and (c).
- (5) Failure to comply with the NOV may subject each respondent to additional civil and/or criminal penalties.
- (6) The NOV does not preclude the Director from taking any additional enforcement action nor does it preclude any other local, state, or federal governmental entities from initiating enforcement actions based on the acts or omissions described herein.

If you have any legal questions, you may contact (or if you are represented by an attorney, please have your attorney contact) Tricia Quest of the DEM's Office of Legal Services at (401) 222-6607. All other inquiries should be directed to David E. Chopy of the DEM's Office of Compliance and Inspection at (401) 222-1360 ext. 7400.

Please be advised that any such inquiries do not postpone, eliminate, or otherwise extend the need for a timely submittal of a written request for a hearing, as described in Section G above.

FOR THE DIRECTOR

By: _____
David E. Chopy, Chief
Office of Compliance and Inspection

Dated: _____

CERTIFICATION

I hereby certify that on the _____ day of _____
the within Notice of Violation was forwarded by Certified Mail to:

City of Woonsocket
c/o The Honorable Lisa Baldelli-Hunt, Mayor
169 Main Street
Woonsocket, RI 02895

SYNAGRO WOONSOCKET, LLC
c/o CT Corporation System, Resident Agent
450 Veterans Memorial Parkway, Suite 7A
East Providence, RI 02914

SYNAGRO WOONSOCKET, LLC
c/o CT Corporation System, Resident Agent
10 Weybosset Street
Providence, RI 02903



ADMINISTRATIVE PENALTY SUMMARY

Program: OFFICE OF COMPLIANCE AND INSPECTION, Water Pollution
 File Nos.: OCI-WP-17-15 X-ref RIPDES Permit RI0100111
 RIPDES Referral #16-03
 Respondent: SYNAGRO WOONSOCKET, LLC

GRAVITY OF VIOLATION					
SEE ATTACHED "PENALTY MATRIX WORKSHEETS."					
VIOLATION No. & CITATION	APPLICATION OF MATRIX		PENALTY CALCULATION		AMOUNT
	Type	Deviation	Penalty from Matrix	Number or Duration of Violations	
C (4) – Facility Operation	Type I (\$25,000 Max. Penalty) *	Major	\$25,000	7 months	\$175,000
<i>SUB-TOTAL</i>					\$175,000

*Maximum Penalties represent the maximum penalty amounts per day, per violation.

ECONOMIC BENEFIT FROM NONCOMPLIANCE
<p>COSTS OF COMPLIANCE, EQUIPMENT, O&M, STUDIES OR OTHER DELAYED OR AVOIDED COSTS, INCLUDING INTEREST AND/OR ANY COMPETITIVE ADVANTAGE DERIVED OVER ENTITIES THAT COMPLY. NOTE: ECONOMIC BENEFIT MUST BE INCLUDED IN THE PENALTY UNLESS:</p> <ul style="list-style-type: none"> - THERE IS NO IDENTIFIABLE BENEFIT FROM NONCOMPLIANCE; OR - THE AMOUNT OF ECONOMIC BENEFIT CAN NOT BE QUANTIFIED.
<p>A review of the record in this matter has revealed that Respondent has either enjoyed no identifiable benefit from the noncompliance alleged in this enforcement action or that the amount of economic benefit that may have resulted cannot be quantified.</p>

COST RECOVERY
<p>ADDITIONAL OR EXTRAORDINARY COSTS INCURRED BY THE DIRECTOR DURING THE INVESTIGATION, ENFORCEMENT AND RESOLUTION OF AN ENFORCEMENT ACTION (EXCLUDING NON-OVERTIME PERSONNEL COSTS), FOR WHICH THE STATE IS NOT OTHERWISE REIMBURSED.</p>
<p>A review of the record in this matter has revealed that the DEM has not incurred any additional or extraordinary costs during the investigation, enforcement and resolution of this enforcement action (excluding non-overtime personnel costs), for which the State is not otherwise reimbursed.</p>

TOTAL PENALTY PROPOSED UNDER PENALTY REGULATIONS= \$175,000

PENALTY MATRIX WORKSHEET

CITATION: Facility Operation

VIOLATION NO.: C (4)

TYPE		
<p><u> X </u> TYPE I</p> <p><u>DIRECTLY</u> related to protecting health, safety, welfare or environment.</p>	<p><u> </u> TYPE II</p> <p><u>INDIRECTLY</u> related to protecting health, safety, welfare or environment.</p>	<p><u> </u> TYPE III</p> <p><u>INCIDENTAL</u> to protecting health, safety, welfare or environment.</p>

DEVIATION FROM THE STANDARD
THE DEGREE TO WHICH A VIOLATION IS OUT OF COMPLIANCE WITH THE REQUIREMENT VIOLATED.

FACTORS CONSIDERED:

Taken from Part 1.10A.1.b of the DEM's *Rules and Regulations for Assessment of Administrative Penalties*

- (1) **The extent to which the act or failure to act was out of compliance:** Synagro failed to properly operate and maintain the Incinerator in noncompliance with its approved plan. Proper operation and maintenance of a wastewater treatment facility and proper sewage sludge disposal are major objectives of the DEM's RIPDES Regulations, the DEM's Water Quality Regulations, and the DEM's Sludge Management Regulations and is of major importance to the regulatory program.

- (2) **Environmental conditions:** The Incinerator burns wastewater sludge generated from Woonsocket's wastewater treatment facility and other wastewater treatment facilities in Rhode Island and other New England states. Wastewater from the Incinerator is discharged to Woonsocket's facility, and the treated wastewater from Woonsocket's facility is discharged to Blackstone River, which is designated as a Class B1 water body of the State. Class B1 waters are designated for fish and wildlife habitat, primary and secondary contact recreational activities, and shall have good aesthetic value. Blackstone River does not meet its assigned water quality designation for fish and wildlife habitat according to the DEM's *2014 Integrated Water Quality Monitoring and Assessment List Final May 2015*. Among the causes of the impairment is phosphorous, which is associated with wastewater. The wastewater discharged from the Incinerator in April and May 2015 had high cyanide levels, which adversely affected the operation of Woonsocket's facility and were the cause, among other factors, of exceedances of Woonsocket's permit limits for nitrogen, ammonia and phosphorous for those months. The wastewater discharged from the Incinerator in June, July, August and October 2015 had significant temperature fluctuations, which adversely affected the operation of Woonsocket's facility and were the cause, among other factors, of exceedances of Woonsocket's permit limit for phosphorous for those months.

- (3) **Amount of the pollutant:** Unknown – varied with wastewater flow discharged from Woonsocket's facility to Blackstone River. For April through October 2015, Woonsocket had a permit limit for nitrogen of 10.0 ppm as a monthly average, a permit limit for ammonia of 12.0 ppm as a monthly average for May, and a permit limit for phosphorous of 1.0 ppm as a monthly average. The monthly average for nitrogen was 19 ppm (90% over the limit) and 32 ppm (220% over the limit) for April and May, respectively, the monthly average for ammonia was 24.3 ppm (102.5% over the limit) for May, and the monthly average for phosphorous was 2 ppm (100% over the limit), 1.5 ppm (50% over the limit), 2.2 ppm (120% over the limit), 1.2 ppm (20% over the limit) and 3.5 ppm (250% over the limit) for April, June, July, August and October, respectively.

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- (4) **Toxicity or nature of the pollutant:** Ammonia, nitrogen and phosphorous can cause excess algae growth and low dissolved oxygen, which is injurious to fish and wildlife.
- (5) **Duration of the violation:** 7 months – April through October 2015.
- (6) **Areal extent of the violation:** Unknown.
- (7) **Whether the person took reasonable and appropriate steps to prevent and/or mitigate the noncompliance:** Respondent failed to take reasonable and appropriate steps to prevent the noncompliance. The high cyanide levels and temperature fluctuations of the wastewater that was discharged from the Incinerator to Woonsocket’s facility were caused by improper maintenance of the Incinerator. Respondent mitigated the noncompliance by repairing the Incinerator equipment.
- (8) **Whether the person has previously failed to comply with any regulations, order, statute, license, permit or approval issued or adopted by the Department, or any law which the Department has the authority or responsibility to enforce:** Considered, but not utilized for this calculation
- (9) **The degree of willfulness or negligence, including but not limited to, how much control the violator had over the occurrence of the violation and whether the violation was foreseeable:** Respondent had full control over the occurrence of the violation. Respondent is responsible for the proper operation and maintenance of the Incinerator always. The failure to properly operate and maintain the Incinerator was the cause, among other factors, of Woonsocket’s failure to comply with its permit limits. The violation was foreseeable.
- (10) **Any other factor(s) that may be relevant in determining the amount of a penalty:** Considered, but not utilized for this calculation.

<u>X</u> MAJOR	MODERATE	MINOR
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Penalty Matrix where the applicable statute provides for a civil penalty up to \$25,000		TYPE I	TYPE II	TYPE III
DEVIATION FROM STANDARD	MAJOR	\$12,500 to \$25,000 \$25,000	\$6,250 to \$12,500	\$2,500 to \$6,250
	MODERATE	\$6,250 to \$12,500	\$2,500 to \$6,250	\$1,250 to \$2,500
	MINOR	\$2,500 to \$6,250	\$1,250 to \$2,500	\$250 to \$1,250