Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

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NPDES PERMIT/STATE PERMIT

issued to

Hyponex Corporation
14111 Scottslawn Road
Marysville, Ohio 43041

Location Address:
Hyponex Corporation
20 Industrial Park Road
Lebanon, CT 06249

Permit ID: CT0030431and SP0002457

Permit Expires: 11/27/2017

Watershed: Shetucket River

Basin Code: 3800

SECTION 1: GENERAL PROVISIONS

(A) This permit is reissued in accordance with section 22a-430 of Chapter 446k, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and section 402(b) of the Clean Water Act, as amended, 33 USC 1251, et. seq., and pursuant to an approval dated September 26, 1973, by the Administrator of the United States Environmental Protection Agency for the State of Connecticut to administer an N.P.D.E.S. permit program.

(B) Hyponex Corporation, ("Permittee"), shall comply with all conditions of this permit including the following sections of the RCSA which have been adopted pursuant to section 22a-430 of the CGS and are hereby incorporated into this permit. Your attention is especially drawn to the notification requirements of subsection (i)(2), (i)(3), (j)(1), (j)(6), (j)(8), (j)(9)(C), (j)(10)(C), (j)(11)(C), (D), (E), and (F), (k)(3) and (4) and (l)(2) of section 22a-430-3.

Section 22a-430-3 General Conditions

(a) Definitions
(b) General
(c) Inspection and Entry
(d) Effect of a Permit
(e) Duty
(f) Proper Operation and Maintenance
(g) Sludge Disposal
(h) Duty to Mitigate
(i) Facility Modifications; Notification
(j) Monitoring, Records and Reporting Requirements
(k) Bypass
(l) Conditions Applicable to POTWs
(m) Effluent Limitation Violations (Upsets)
(n) Enforcement
(o) Resource Conservation
(p) Spill Prevention and Control
(q) Instrumentation, Alarms, Flow Recorders
(r) Equalization

Section 22a-430-4 Procedures and Criteria

(a) Duty to Apply
(b) Duty to Reapply
(c) Application Requirements
(d) Preliminary Review
(e) Tentative Determination
(f) Draft Permits, Fact Sheets
(g) Public Notice, Notice of Hearing
(h) Public Comments
(i) Final Determination
(j) Public Hearings
(k) Submission of Plans and Specifications. Approval.
(l) Establishing Effluent Limitations and Conditions
(m) Case by Case Determinations
(n) Permit issuance or renewal
(o) Permit Transfer
(p) Permit revocation, denial or modification
(q) Variances
(r) Secondary Treatment Requirements
(s) Treatment Requirements for Metals and Cyanide
(t) Discharges to POTWs - Prohibitions

(C) Violations of any of the terms, conditions, or limitations contained in this permit may subject the Permittee to enforcement action including, but not limited to, seeking penalties, injunctions and/or forfeitures pursuant to applicable sections of the CGS and RCSA.

(D) Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense under section 22a-438 or 22a-131a of the CGS or in accordance with section 22a-6, under section 53a-157b of the CGS.

(E) The authorization to discharge under this permit may not be transferred without prior written approval of the Commissioner of Energy and Environmental Protection ("Commissioner"). To request such approval, the Permittee and proposed transferee shall register such proposed transfer with the Commissioner, at least 30 days prior to the transferee becoming legally responsible for creating or maintaining any discharge which is the subject of the permit transfer. Failure, by the transferee, to obtain the Commissioner's approval prior to commencing such discharge(s) may subject the transferee to enforcement action for discharging without a permit pursuant to applicable sections of the CGS and RCSA.

(F) No provision of this permit and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by the Permittee pursuant to this permit will result in compliance or prevent or abate pollution.

(G) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.

(H) An annual fee shall be paid for each year this permit is in effect as set forth in section 22a-430-7 of the Regulations of Connecticut State Agencies.

SECTION 2: DEFINITIONS

(A) The definitions of the terms used in this permit shall be the same as the definitions contained in section 22a-423 of the CGS and section 22a-430-3(a) and 22a-430-6 of the RCSA.

(B) In addition to the above, the following definitions shall apply to this permit:

"----" in the limits column on the monitoring table means a limit is not specified but a value must be reported on the DMR.

"5-year, 24-hour rainfall event" means the maximum 24-hour precipitation event with a probable recurrence interval of once in 5 years, as defined, as of the date on which this permit is issued, by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States", May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

"25-year, 24-hour rainfall event" means the maximum 24-hour precipitation event with a probable recurrence interval of once in 25 years, as defined, as of the date on which this permit is issued, by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States", May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

"Annually" in the context of a sampling frequency, shall mean the sample must be collected in the month of May or the next month when a qualifying rainfall event occurs. See Section 5 of this permit.

"Design rainfall event" is equivalent to a 5-year, 24-hour rainfall event. Design events also include tornadoes, hurricanes, or other conditions that would cause an overflow from the retention structures that are designed, constructed, operated, and maintained to meet all the requirements of this permit.

"Chronic rainfall" means a series of wet weather events that prevent the dewatering of properly maintained retention structures.

"Grab sample" means an individual sample collected in less than fifteen minutes.

"Qualified Inspector" means a Certified Hazardous Materials Manager with a minimum of five years in the management of stormwater discharges from industrial activities, including, but not limited to, a minimum of four years in the responsible charge of managing such discharges.

"Quarterly", in the context of a sampling frequency, shall mean sampling is required in the months of February, May, August and November.

"Land application", means the application of stormwater discharges associated with a commercial composting facility from a commercial composting operation onto, or incorporation into, the soil.

"Land application area" means any land owned, leased or otherwise controlled by the owner/operator for the purpose of land applying stormwater discharges associated with a commercial composting facility from the commercial composting operation.

"NA" shall mean not applicable.

"Semiannually" means that a representative sample of the discharge shall be collected at any time during each of the following periods: January - June, inclusive and July - December, inclusive.

"Stormwater discharges associated with a commercial composting facility" means any water directly or indirectly used in, or resulting from, the operation of the commercial composting operation, including any of the following:

- Spillage or overflow from compost watering systems
- Dust control
- Leachate from compost
- Wastewater generated in the production or storage of intermediate or final products
- Stormwater that comes into contact with any production area, raw materials, or products or byproducts of the operation.

"Production area" means the raw materials storage areas, the compost and alum fields with associated road networks, and finished product storage and processing areas.

"Retention facility or retention structures" means all ditches, conduits, swales, basins, ponds, and lagoons used to collect and store stormwater discharges associated with a commercial composting facility.

SECTION 3: COMMISSIONER'S DECISION

(A) The Commissioner, has issued a final determination and found that systems to treat such discharges will protect the waters of the state from pollution. The Commissioner's decision is based on Application Nos. 201005291 and 201201837 for permit issuance received on August 12, 2010 and March 20, 2012 and the administrative record established in the processing of that application.

(B) From the issuance of this permit through and including November 30, 2012, the Commissioner hereby authorizes the Permittee to discharge in accordance with the terms and conditions of Permit No. CT0030431, issued by the Commissioner to the Permittee on February 10, 2006, the previous application submitted by the Permittee on January 7, 2000, and all modifications and approvals issued by the Commissioner or the Commissioner's authorized agent for the discharge and/or activities authorized by, or associated with, Permit No. CT0030431 issued by the Commissioner to the Permittee on February 10, 2006.

From December 1, 2012 until this permit expires or is modified or revoked, the Commissioner hereby authorizes the Permittee to discharge in accordance with the terms and conditions of Permit No. CT0030431, issued by the Commissioner to the Permittee on November 28, 2012, Application No. 201005291 received by the Department on August 12, 2010, and all modifications and approvals issued by the Commissioner or the Commissioner's authorized agent for the discharge and/or activities authorized by, or associated with, Permit No.CT0030431, issued by the Commissioner to the Permittee on November 28, 2012.

(C) The Commissioner reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or CGS or regulations adopted thereunder which are then applicable.

SECTION 4: GENERAL EFFLUENT LIMITATIONS

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(A) No discharge shall contain, or cause in the receiving stream, a visible oil sheen or floating solids; or, cause visible discoloration or foaming in the receiving stream.

(B) No discharge shall cause acute or chronic toxicity in the receiving water body beyond any zone of influence specifically allocated to that discharge in this permit.

(C) The temperature of any discharge shall not increase the temperature of the receiving stream above 85°F, or, in any case, raise the temperature of the receiving stream by more than 4°F.

(D) The Permittee shall assure that groundwater affected by the subject discharge shall conform to the Connecticut Water Quality Standards.

(E) The land application area shall be operated at all times in accordance with the following limits:

(1) The groundwater table shall not rise closer than one foot to the ground surface in the irrigation area as a result of land application.

(2) No spray irrigation shall be conducted when the air temperature is below 10 degrees F or when groundwater is within one foot of the ground surface or when runoff is occurring.

(3) The actual maximum hourly rate of application of stormwater associated with a commercial composting facility shall not exceed 0.20 inches per hour.

(4) There shall be a minimum 12-hour rest period between spray applications for any spray area.

(5) Spray irrigation shall be conducted during daylight hours only.

(6) No spray irrigation shall be conducted during precipitation events.

(7) Standpipes SP-1 through SP-4, located within the land application area, shall be monitored for groundwater depth monthly during the spray irrigation season and during spray irrigation events.

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

(A) The discharges shall not exceed and shall otherwise conform to the specific terms and conditions listed below. The discharges are restricted by, and shall be monitored in accordance with, the table(s) below:

Table A STORMWATER MONITORING									
Discharge Serial Number: 101A						**Monitoring Location:** J: Influent to Lagoon 3			
Wastewater Description: Stormwater discharges associated with a commercial composting facility									
Monitoring Location Description: At pumping inlet Lagoon 3									
PARAMETER	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING These limits may not exceed fed. Categorical limits where there is no average or max day limits established**			**Minimum Level Test**
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Aluminum[1]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	X
Arsenic, Total	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
BOD_5	mg/l	NA	NA	NR	NA	30	Quarterly	Grab	NA
Copper, Total[1]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	X
Kjeldahl Nitrogen, Total[2]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Lead, Total[1]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	X
Nitrate as Nitrogen[2]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Oil and Grease, Total	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
pH[2]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Phosphorus, Total[2]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Total Suspended Solids[2]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Zinc, Total[1]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	X

Footnotes:

[1]See Section 6(A)(3) for minimum levels of Chemical Analysis

[2]See Section 10(D)(10) for information about benchmark monitoring and future frequency monitoring.

Remarks:

Lagoons, when empty would have capacity to store runoff generated from a 25-year, 24-hour event.

Table B STORMWATER MONITORING									
Discharge Serial Number: 102						**Monitoring Location:** 1			
Wastewater Description: Stormwater discharge from parking lot runoff									
Monitoring Location Description: Stormwater detention basin adjacent to prepack laydown lot									
PARAMETER	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING These limits may not exceed fed. Categorical limits where there is no average or max day limits established**			**Minimum Level Test [2]**
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Aquatic Toxicity, Daphnia Pulex LC50	%	NA	NA	NR	NA	----	Annually	Grab	NA
Aquatic Toxicty, Pimephales promela LC50	%	NA	NA	NR	NA	----	Annually	Grab	NA
COD[2]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Copper, Total[1]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	X
Kjeldahl Nitrogen, Total[2]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Lead, Total[1]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	X
Nitrate as Nitrogen[2]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Oil and Grease, Total[2]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
pH[2]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Phosphorus, Total[2]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Total Suspended Solids[2]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Zinc, Total[1]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	X

Footnotes:

[1] See Section 6(A) of this permit regarding Minimum Level Test.

[2]See Section 10(D)(10) for information about benchmark monitoring and future frequency monitoring.

Remarks:

The results of the Toxicity Tests shall be recorded in % survival on the DMR.

"Semiannually" means that a representative sample of the discharge shall be collected at any time during each of the following periods: January - June, inclusive and July - December, inclusive.

For the months when a sample is not collected, the Discharge Monitoring Report shall be submitted with the comment, "Monitoring Conditional".

Table C GROUNDWATER MONITORING									
Discharge Serial Number: 101-2						**Groundwater Monitoring Well Number:** B2 **Monitoring Location:** W-downgradient			
Wastewater Description: treated stormwater runoff used as irrigation									
Monitoring Location Description: monitoring well downgradient of composting activities and of irrigation field									
PARAMETER	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING These limits may not exceed fed. Categorical limits where there is no average or max day limits established**			**Minimum Level Test**
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Aluminum	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA
BOD_5	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Copper	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA
Groundwater Depth	in	NA	NA	NR	NA	----	Quarterly	Measured	NA
Nitrogen, Ammonia	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Nitrate	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Nitrite	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Total Kjeldahl	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
pH	S.U.	NA	NA	NR	NA	----	Quarterly	Grab	NA
Phosphorus, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Zinc	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA

Table D GROUNDWATER MONITORING									
Discharge Serial Number: 101-3						**Groundwater Monitoring Well Number:** B3 **Monitoring Location:** W-downgradient			
Wastewater Description: treated stormwater runoff used as irrigation									
Monitoring Location Description: monitoring well downgradient of composting activities and of irrigation field									
PARAMETER	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING These limits may not exceed fed. Categorical limits where there is no average or max day limits established**			**Minimum Level Test**
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Aluminum	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA
BOD_5	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Copper	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA
Groundwater Depth	in	NA	NA	NR	NA	----	Quarterly	Measured	NA
Nitrogen, Ammonia	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Nitrate	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Nitrite	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Total Kjeldahl	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
pH	S.U.	NA	NA	NR	NA	----	Quarterly	Grab	NA
Phosphorus, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Zinc	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA

Table E GROUNDWATER MONITORING									
Discharge Serial Number: 101-4						**Groundwater Monitoring Well Number:** B4 **Monitoring Location:** W-downgradient			
Wastewater Description: treated stormwater runoff used as irrigation									
Monitoring Location Description: monitoring well downgradient of composting activities and of irrigation field									
PARAMETER	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING These limits may not exceed fed. Categorical limits where there is no average or max day limits established**			**Minimum Level Test**
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Aluminum	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA
BOD_5	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Copper	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA
Groundwater Depth	in	NA	NA	NR	NA	----	Quarterly	Measured	NA
Nitrogen, Ammonia	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Nitrate	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Nitrite	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Total Kjeldahl	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
pH	S.U.	NA	NA	NR	NA	----	Quarterly	Grab	NA
Phosphorus, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Zinc	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA

Table F GROUNDWATER MONITORING									
Discharge Serial Number: 101-5						**Groundwater Monitoring Well Number:** B5 **Monitoring Location:** W-downgradient			
Wastewater Description: treated stormwater runoff used as irrigation									
Monitoring Location Description: monitoring well downgradient of composting activities and of irrigation field									
PARAMETER	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING These limits may not exceed fed. Categorical limits where there is no average or max day limits established**			**Minimum Level Test**
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Aluminum	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA
BOD_5	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Copper	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA
Groundwater Depth	in	NA	NA	NR	NA	----	Quarterly	Measured	NA
Nitrogen, Ammonia	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Nitrate	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Nitrite	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Total Kjeldahl	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
pH	S.U.	NA	NA	NR	NA	----	Quarterly	Grab	NA
Phosphorus, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Zinc	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA

Table G GROUNDWATER MONITORING									
Discharge Serial Number: 101-6						**Groundwater Monitoring Well Number:** I1 **Monitoring Location:** W-downgradient			
Wastewater Description: treated stormwater runoff used as irrigation									
Monitoring Location Description: monitoring well downgradient of composting activities and of irrigation field									
PARAMETER	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING These limits may not exceed fed. Categorical limits where there is no average or max day limits established**			**Minimum Level Test**
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Aluminum	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA
BOD_5	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Copper	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA
Groundwater Depth	in	NA	NA	NR	NA	----	Quarterly	Measured	NA
Nitrogen, Ammonia	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Nitrate	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Nitrite	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Total Kjeldahl	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
pH	S.U.	NA	NA	NR	NA	----	Quarterly	Grab	NA
Phosphorus, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Zinc	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA

Table H GROUNDWATER MONITORING									
Discharge Serial Number: 101-7						**Groundwater Monitoring Well Number:** I2 **Monitoring Location:** W-downgradient			
Wastewater Description: treated stormwater runoff used as irrigation									
Monitoring Location Description: monitoring well downgradient of composting activities and of irrigation field									
PARAMETER	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING These limits may not exceed fed. Categorical limits where there is no average or max day limits established**			**Minimum Level Test**
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Aluminum	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA
BOD_5	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Copper	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA
Groundwater Depth	in	NA	NA	NR	NA	----	Quarterly	Measured	NA
Nitrogen, Ammonia	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Nitrate	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Nitrite	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Nitrogen, Total Kjeldahl	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
pH	S.U.	NA	NA	NR	NA	----	Quarterly	Grab	NA
Phosphorus, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	NA
Zinc	mg/l	NA	NA	NR	NA	----	Annually	Grab	NA

Table I SURFACE WATER MONITORING									
Discharge Serial Number: 103						**Surface Water Sampling Point:** Effluent of Lagoon 3			
Wastewater Description: overflow of wastewater (stormwater) from commercial composting activity collected in lagoon 3									
Monitoring Location Description: discharge at the diversion structure at the south end of lagoon 3									
PARAMETER	**UNITS**	**FLOW/TIME BASED MONITORING**				**INSTANTANEOUS MONITORING These limits may not exceed fed. Categorical limits where there is no average or max day limits established**			**Minimum Level Test**
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/ Reporting Frequency	Sample Type or measurement to be reported	
Aluminum[1]	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	0.01
Aquatic Toxicity, Daphnia Pulex NOAEL = 100%	%	NA	NA	NR	NA	≥ 90%	Annually	Grab	NA
Aquatic Toxicty, Pimephales promela NOAEL=100%	%	NA	NA	NR	NA	≥ 90%	Annually	Grab	NA
Arsenic, Total	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
BOD_5	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
COD	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Copper[1]	mg/l	NA	NA	NR	NA	----[2]	Semiannually	Grab	0.005
Nitrogen, Ammonia	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Nitrogen, Nitrate	mg/l	NA	NA	NR	NA	----[2]	Semiannually	Grab	NA
Nitrogen, Nitrite	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Nitrogen, Total	mg/l	NA	NA	NR	NA	----	Semiannually	Grab	NA
Nitrogen, Total Kjeldahl	mg/l	NA	NA	NR	NA	----[2]	Semiannually	Grab	NA
pH	S.U.	NA	NA	NR	NA	---[2]	Semiannually	Instantaneous	NA
Phosphorus, Total	mg/l	NA	NA	NR	NA	----[2]	Semiannually	Grab	NA
Total Suspended Solids	mg/l	NA	NA	NR	NA	----[2]	Semiannually	Grab	NA
Zinc[1]	mg/l	NA	NA	NR	NA	----[2]	Semiannually	Grab	0.01

Footnotes:

[1] See Section 6(A) of this permit regarding Minimum Level Test.

[2] See Section 10(D)(10) for information about benchmark monitoring.

Remarks:

"Semiannually" means that a representative sample of the discharge shall be collected at any time during each of the following periods: January - June, inclusive and July - December, inclusive.

For the months when a sample is not collected, the Discharge Monitoring Report shall be submitted with the comment, "Monitoring Conditional".

(B) All samples shall be comprised of only the wastewater and/or stormwater described in Tables A, B and I. Samples shall be collected prior to combination with receiving waters or wastewater of any other type, and after all approved treatment units, if applicable. All samples collected shall be representative of the discharge during standard operating conditions.

(C) In cases where limits and sample type are specified but sampling is not required by this permit, the limits specified shall apply to all samples which may be collected and analyzed by the Department of Energy and Environmental Protection personnel, the Permittee, or other parties.

(D) For Table B and I Discharges Only:

(1) All samples shall be collected from discharges resulting from a storm event that occurs at least 72 hours after any previous storm event generating a stormwater discharge. Any sample containing snow or ice melt must be identified on the Discharge Monitoring Report.

(2) Grab samples shall not be combined. Collection of grab samples shall begin during the first thirty (30) minutes of a storm event discharge (flow at sampling location) and shall be completed as soon as possible.

(3) All discharge samples shall be taken during the same storm event, if feasible.

(4) The date, discharge temperature, time of the start of the discharge, time of sampling, and magnitude (in inches) of the storm event shall be recorded.

(5) The duration between the storm event sampled and the end of the most recent storm event that produced a discharge shall be recorded.

(6) The uncontaminated rainfall pH (before it contacts the ground or a roof surface) for the storm event sampled shall be recorded.

SECTION 6: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES

(A) Chemical Analysis

(1) Chemical analyses to determine compliance with effluent limits and conditions established in this permit shall be performed using the methods approved by the Environmental Protection Agency pursuant to 40 CFR 136 unless an alternative method has been approved in writing in accordance with 40 CFR 136.4 or as provided in section 22a-430-3(j)(7) of the RCSA. Chemicals which do not have methods of analysis defined in 40 CFR 136 shall be analyzed in accordance with methods specified in this permit.

(2) All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal as defined in 40 CFR 136 unless otherwise specified.

(3) The Minimum Levels specified below represent the concentrations at which quantification must be achieved and verified during the chemical analyses for the parameters identified in Section 5 Table A.

Analyses for these parameters must include check standards within ten percent of the specified Minimum Level or calibration points equal to or less than the specified Minimum Level.

Parameter	Minimum Level
Aluminum	10.0 µg/L
Copper	5.0 µg/L
Lead	5.0 µg/L
Zinc	10.0 µg/L

(4) The value of each parameter for which monitoring is required under this permit shall be reported to the maximum level of accuracy and precision possible consistent with the requirements of this section of the permit.

(5) Effluent analyses for which quantification was verified during the analysis at or below the minimum levels specified in this section and which indicate that a parameter was not detected shall be reported as "less than x" where 'x' is the numerical value equivalent to the analytical method detection limit for that analysis.

(6) Results of effluent analyses which indicate that a parameter was not present at a concentration greater than or equal to the Minimum Level specified for that analysis shall be considered equivalent to zero (0.0) for purposes of determining compliance with effluent limitations or conditions specified in this permit.

(B) Acute Aquatic Toxicity Test

(1) Samples for monitoring of Aquatic Toxicity shall be collected and handled as prescribed in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012).

a. Grab samples shall be chilled immediately following collection. Samples shall be held at 4 degrees Centigrade until Aquatic Toxicity testing is initiated.

b. Stormwater samples shall not be dechlorinated, filtered, or, modified in any way, prior to testing for Aquatic Toxicity unless specifically approved in writing by the Commissioner for monitoring at this facility.

c. Chemical analyses of the parameters identified in Section 5 Table B and Table I shall be conducted on an aliquot of the same sample tested for Aquatic Toxicity.

i. At a minimum, pH, specific conductance, total alkalinity, total hardness, and total residual chlorine shall be measured in the effluent sample and, during Aquatic Toxicity tests, in the highest concentration of test solution and in the dilution (control) water at the beginning of the test and at test termination. If Total Residual Chlorine is not detected at test initiation, it does not need to be measured at test termination. Dissolved oxygen, pH, and temperature shall be measured in the

control and all test concentrations at the beginning of the test, daily thereafter, and at test termination.

d. Tests for Aquatic Toxicity shall be initiated within 24 hours of sample collection.

(2) Monitoring for Aquatic Toxicity to determine compliance with the permit condition on Aquatic Toxicity (invertebrate) above shall be conducted for 48-hours utilizing neonatal Daphnia pulex (less than 24-hours old)

(3) Monitoring for Aquatic Toxicity to determine compliance with the permit condition on Aquatic Toxicity (vertebrate) above shall be conducted for 48-hours utilizing larval Pimephales promelas (1-14 days old with no more than 24-hours range in age).

(4) Tests for Aquatic Toxicity shall be conducted as prescribed for static non-renewal acute tests in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012), except as specified below.

a. Definitive (multi-concentration) testing, with LC50 as the endpoint, shall be conducted to determine compliance with limits on Aquatic Toxicity and monitoring conditions and shall incorporate, at a minimum, the following effluent concentrations:

i. For Aquatic Toxicity Limits expressed as LC50 values of 33% or greater: 100%, 75%, 50%, 25%, 12.5%, and 6.25%

ii. For Aquatic Toxicity Limits expressed as LC50 values between 15% and 33% and for monitoring only conditions: 100%, 50%, 25%, 12.5%, and 6.25%

iii. For Aquatic Toxicity Limits expressed as LC50 values of 15% or less: 100%, 50%, 25%, 12.5%, 6.25%, and 3%

b. For Aquatic Toxicity Limits and for monitoring only conditions, expressed as an NOAEL value, Pass/Fail (single-concentration) tests shall be conducted at a specified Critical Test Concentration (CTC) equal to the Aquatic Toxicity Limit, or 100% in the case of monitoring only conditions, as prescribed in section 22a-430-3(j)(7)(A)(i) of the Regulations of Connecticut State Agencies, except that five replicates of undiluted effluent and five replicates of effluent diluted to the CTC shall be included.

c. Organisms shall not be fed during the tests.

d. Copper nitrate shall be used as the reference toxicant in tests with freshwater organisms.

e. Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (plus or minus 5 mg/L) as CaCO3 shall be used as dilution water in tests with freshwater organisms.

(5) Compliance with limits on Aquatic Toxicity shall be determined as follows:

a. For limits expressed as a minimum LC50 value, compliance shall be demonstrated when the results of a valid definitive Aquatic Toxicity test indicates that the LC50 value for the test is greater than the Aquatic Toxicity Limit.

SECTION 7: REPORTING REQUIREMENTS

(A) The results of chemical analyses and any aquatic toxicity test required above shall be entered on the Discharge Monitoring Report (DMR), provided by this office, and reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing) at the following address. The report shall also include a detailed explanation of any violations of the limitations specified. The DMR shall be received at this address by the last day of the month following the month in which samples are collected.

In addition to the information required by Section 5 Tables A, B and I, **the following storm event information shall be submitted:**

- The date, discharge temperature, time of the start of the discharge, time of sampling, and magnitude (in inches) of the storm event sampled.
- The uncontaminated rainfall pH (before it contacts the ground or a roof surface) for the storm event sampled.
- The duration between the storm event sampled and the end of the most recent storm event that produced a discharge.

The report shall also include a detailed explanation of any violations of any limitations specified. The DMR shall be received at this address by the last day of the month following the month in which samples are collected.

Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division (Attn: DMR Processing)
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

(B) Complete an accurate aquatic toxicity test data, including percent survival of test organisms in each replicate test chamber, LC50 values and 95% confidence intervals for definitive test protocols, and all supporting chemical/physical measurements performed in association with any aquatic toxicity test, including measured daily flow and hours of operation for the 30 consecutive operating days prior to sample collection if compliance with a limit on Aquatic Toxicity is based on toxicity limits based on actual flows described in Section 6, shall be entered on the Aquatic Toxicity Monitoring Report form (ATMR) and sent to the Bureau of Water Protection and Land Reuse at the following address. The ATMR shall be received at this address by the last day of the month following the month in which samples are collected.

Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity)
Connecticut Department of Energy and Environmental Protection
79 Elm St.
Hartford, CT 06106-5127

(C) If this permit requires monitoring of a discharge on a calendar basis (e.g. Monthly, quarterly, etc.), but a discharge has not occurred within the frequency of sampling specified in the permit, the Permittee must submit the DMR and ATMR, as scheduled, indicating "NO DISCHARGE". For those Permittees whose required monitoring is discharge dependent (e.g. per batch), the minimum reporting frequency is monthly. Therefore, if there is no discharge during a calendar month for a batch discharge, a DMR must be submitted indicating such by the end of the following month.

(D) NetDMR Reporting Requirements

(1) Prior to one-hundred and eighty (180) days after the issuance of this permit, the Permittee may either submit monitoring data and other reports to the Department in hard copy form or electronically using NetDMR, a web-based tool that allows Permittees to electronically submit discharge monitoring reports (DMRs) and other required reports through a secure internet connection. Unless otherwise approved in writing by the Commissioner, no later than one-hundred and eighty (180) days after the issuance of this permit the Permittee shall begin reporting electronically using NetDMR. Specific requirements regarding subscription to NetDMR and submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

a. NetDMR Subscriber Agreement

On or before fifteen (15) days after the issuance of this permit, the Permittee and/or the person authorized to sign the Permittee's discharge monitoring reports ("Signatory Authority") as described in RCSA Section 22a-430-3(b)(2) shall contact the Department at deep.netdmr@ct.gov and initiate the NetDMR subscription process for electronic submission of Discharge Monitoring Report (DMR) information. Information on NetDMR is available the Department's website at www.ct.gov/deep/netdmr. On or before ninety (90) days after issuance of this permit the Permittee shall submit a signed and notarized copy of the ***Connecticut DEEP NetDMR Subscriber Agreement*** to the Department.

b. Submittal of Reports Using NetDMR

Unless otherwise approved by the Commissioner, on or before one-hundred and eighty (180) days after issuance of this permit, the Permittee and/or the Signatory Authority shall electronically submit DMRs and reports required under this permit to the Department using NetDMR in satisfaction of the DMR submission requirement in paragraph (A) of this Section of this permit.

DMRs shall be submitted electronically to the Department no later than the 30th day of the month following the completed reporting period. All reports required under the permit, including any monitoring conducted more frequently than monthly or any additional monitoring conducted in accordance with 40 CFR 136, shall be submitted to the Department as an electronic attachment to the DMR in NetDMR. Once a Permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to the Department. Permittee shall also electronically file any written report of non-compliance described in Section paragraph (A) of this Section and in the following Section of this Permit as an attachment in NetDMR. NetDMR is accessed from: http://www.epa.gov/netdmr.

c. Submittal of NetDMR Opt-Out Requests

If the Permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for electronically submitting DMRs and reports, the Commissioner may approve the submission of DMRs and other required reports in hard copy form ("opt-out request"). Opt-out requests must be submitted in writing to the Department for written approval on or before fifteen (15) days prior to the date a Permittee would be required under this

permit to begin filing DMRs and other reports using NetDMR. This demonstration shall be valid for twelve (12) months from the date of the Department's approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to the Department using NetDMR unless the Permittee submits a renewed opt-out request and such request is approved by the Department.

All opt-out requests and requests for the NetDMR subscriber form should be sent to the following address or by email at dep.netdmr@ct.gov:

Attn: NetDMR Coordinator
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

SECTION 8: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS

(A) If any sample analysis indicates Toxicity, or that the test was invalid, another sample of the effluent shall be collected and tested for Aquatic Toxicity and associated chemical parameters, as described above in Section 5 and Section 6, and the results reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing), at the address listed above, within 30 days of the exceedance or invalid test. Results of all tests, whether valid or invalid, shall be reported.

(B) If any two consecutive test results or any three test results in a twelve month period indicates that an Aquatic Toxicity Limit has been exceeded, the Permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report to Bureau of Materials Management and Compliance Assurance (Attn: Aquatic Toxicity) for the review and approval of the Commissioner in accordance with section 22a-430-3(j)(10)(c) of the RCSA describing proposed steps to eliminate the toxic impact of the discharge on the receiving water body. Such a report shall include a proposed time schedule to accomplish toxicity reduction and the Permittee shall comply with any schedule approved by the Commissioner.

(C) The Permittee shall notify the Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division, within 72 hours and in writing within thirty days of the discharge of any substance listed in the application but not listed in the permit if the concentration or quantity of that substance exceeds two times the level listed in the application.

SECTION 9: SITE-WIDE MAINTENANCE AND INSPECTION PLAN

(A) The site's drainage and treatment systems and measures associated with DSN 101-1 and 101A shall be inspected and maintained in accordance with the following schedule:

TABLE E MAINTENANCE SCHEDULE	
INSPECTION or MAINTENANCE	**MINIMUM FREQUENCY**
Mechanical inspection of pump station	Monthly
Mechanical inspection of gross particle separator	Annually
Visual inspection of collection swales	Monthly
Visual inspection of settling lagoons and basins	Monthly
Visual inspection of diversion structures	Monthly
Visual inspection of catch basins	Quarterly
Visual inspection of riprapped waterways	Monthly
Visual inspection of spillways and discharge	Monthly
Visual inspection of clean water diversion system	Quarterly
Remove sedimentation from settling basins	At least twice a year
Clean out water diversion structures	Annually or as needed
Clean out catch basins	Annually or as needed
Clean out gross particle separator	Annually
Repair collection swales	As needed
Depth of liquid in lagoons	Monthly
Depth of sediment in lagoons	Annually
Dredging of lagoons	As needed
Mow grassed swales and lagoon embankments	At least once a year

SECTION 10: STORMWATER POLLUTION PREVENTION PLAN

(A) Development of Plan

The Permittee shall prepare and implement a Stormwater Pollution Prevention Plan ("Plan") for the site. The Permittee shall perform all actions required by the Plan, including implementation of control measures, employee training, and inspections. The Plan shall include records and documentation of compliance with these elements and shall be kept on-site at all times. The Permittee shall maintain compliance with the Plan.

(B) Signature and Plan Review

The Plan shall be signed by a responsible corporate officer or a duly authorized representative thereof, as those terms are defined in section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies; The Plan shall also be certified, in accordance with the "Plan Certification" section below, by a professional engineer licensed in the State of Connecticut or a Certified Hazardous Materials Manager.

The Plan shall be retained on site at the facility.

The Permittee shall make a copy of the Plan available to the following immediately upon request:

(1) the Commissioner at his/her own request or at the request of a member of the public;

(2) to the operator of the municipal separate storm sewer system receiving the discharge.

The Commissioner may notify the Permittee at any time that the Plan does not meet one or more of the requirements of this section. Within 120 days of such notification unless otherwise specified by the commissioner in writing, the Permittee shall revise the Plan, perform all actions required by the revised Plan, and shall inform the Commissioner in writing that the requested changes have been made and implemented, and such other information as the commissioner requires.

(C) Plan Certification

The Plan shall contain the following certification, signed by a professional engineer licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager:

"I certify that I have thoroughly and completely reviewed the Stormwater Pollution Prevention Plan prepared for this site. I further certify, based on such review and site visit by myself or my agent, and on my professional judgment, that the Stormwater Pollution Prevention Plan meets the criteria set forth in this permit. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

(D) Contents of Plan

The Plan shall be representative of current site conditions and shall address, at a minimum, all the elements below. If an element is not applicable to the facility, the Plan shall identify it and provide an explanation as to why the element does not apply.

(1) Facility Description

Provide a description of the nature of the industrial activities at the facility.

(2) General location map

Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of the facility and all receiving waters to which stormwater discharges.

(3) Pollution Prevention Team

The Permittee shall identify a specific individual or individuals for the site who shall serve as members of a Stormwater Pollution Prevention Team ("team"). The team shall be responsible for implementing the Plan and assisting in the implementation, maintenance, and development of revisions to the Plan as well as maintaining control measures and taking corrective actions where required. At least one team member shall be present at the facility or on call during all operational shifts. The Plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the Plan. Each member of the stormwater pollution prevention team shall have ready access to either an electronic or paper copy of applicable portions of this permit and the Plan.

(4) Potential Pollutant Sources

The Plan shall map and describe the potential sources of pollutants that may reasonably be expected to affect stormwater quality at the site or that may result in the discharge of pollutants during dry weather from the site. The Plan shall identify all activities and materials that may be a source of stormwater pollution at the site. Accordingly, the Plan shall include, but not be limited to the following:

a. Site Map

A site map (at a defined or approximate scale) shall be developed showing:

- a north arrow and surveyed or approximate property lines including the total site acreage;
- location of existing buildings and structures;
- the overall site size and amount of impervious coverage as well as an outline of the drainage area, including the extent of impervious surface, for each stormwater outfall and direction of flow within the drainage area;
- existing structural control measures installed to reduce pollutants in stormwater runoff;
- locations of all stormwater conveyances including catchbasins, ditches, pipes, and swales as well as the location of any non-stormwater discharges;
- the areal extent of any wetlands to which stormwater discharges;
- the receiving surface water body or bodies to which the site discharges including the identification of any impaired waters and whether or not a TMDL has been established for them;
- location(s) where major spills or leaks have occurred;
- locations of all stormwater monitoring points including latitude and longitude, where available;
- locations of discharges to a municipal storm sewer system;
- locations of discharges to groundwater through an infiltration system;
- locations where any drainage run-on enters the site; and
- each location of the following activities and associated types of pollutants where such activities are exposed to precipitation:

  fueling stations;
  vehicle and equipment maintenance and/or cleaning areas;
  loading/unloading areas;
  locations used for the treatment, storage or disposal of wastes;
  liquid storage tanks;
  de-icing material storage areas;
  processing areas;
  storage areas;
  areas with the potential for erosion that may impact surface waters or wetlands or may have off-site impacts; and
  any other potential pollutant sources.

b. Inventory of Exposed Materials

A tabular inventory of non-gaseous materials at the site, including a description of potential pollutants associated with those materials that may be exposed to stormwater between the time of three years prior to the date of certification of the Plan and the present for the following areas:

- loading and unloading operations;
- roof areas;
- outdoor storage activities;
- outdoor manufacturing or processing activities;
- dust or particulate generating processes; and
- on-site waste disposal practices.

c. Summary of Potential Pollutant Sources

A narrative summary of each area of the site specified in "Inventory of Exposed Materials" and each associated potential source of pollution. Such summary shall include:

- method and location of on-site storage or disposal;
- materials management practices employed to minimize contact of materials with stormwater runoff between the time of three years prior to the effective date of this permit and the present;
- the location and a description of existing structural and non-structural control measures to reduce pollutants in stormwater runoff; and
- a description of any treatment the stormwater receives.

d. Spills and Leaks

A list of spills and leaks of five gallons or more of petroleum products, or of toxic or hazardous substances which could affect stormwater, as listed in section 22a-430-4 (Appendix B Tables II, III and V, and Appendix D) of the Regulations of Connecticut State Agencies, and 40 CFR 116.4, that occurred at the facility after the date of three years prior to the date of certification of the Plan.

(5) Control Measures

The Permittee shall document the location and type of control measures installed and implemented at the site in accordance with "Control Measures" (Section 9(D)(5)). The Permittee shall discuss the appropriateness and priorities of control measures in the Plan and how they address identified potential sources of pollutants at the site. The Plan shall include a schedule for implementing such controls measures if not already implemented.

a. Good Housekeeping: The Permittee shall maintain a clean, orderly facility (e.g. sweeping at regular intervals, appropriate storage practices, proper garbage and waste management, dust control measures, etc.) in all areas that are exposed to rainfall and are potential sources of pollutants.

b. Vehicle or Equipment Washing: The Permittee shall provide, at a minimum, that no washing or rinsing of equipment, buildings or vehicles shall be allowed at the site which would allow wash or rinse waters to enter any storm drainage system or surface waters of the State without a permit. Such discharges to groundwater are not authorized by this permit.

c. Floor Drains: The Permittee shall provide that all floor drains have been sealed, authorized by a local authority to discharge to sanitary sewer or allowed by DEEP in accordance with the "Non-Stormwater Discharges" section of this permit.

d. Roof Areas: The Permittee shall identify roof areas that may be subject to drippage, dust or particulates from exhausts or vents or other sources of pollution. The Permittee shall inspect such areas to determine if any potential sources of stormwater pollution are present. If so, the Permittee shall minimize such sources or potential sources of pollution.

e. Minimize Exposure: The Permittee shall minimize exposure to stormwater of materials identified in the "Inventory of Exposed Materials" section of this permit.

Where the Permittee believes it is not feasible to construct a permanent roof or cover, they shall submit their Plan showing the area(s) in question and reasons in writing for the commissioner's review and written approval.

f. Sediment and Erosion Control: The Permittee shall identify areas that have a potential for soil erosion due to topography, activities, or other factors, and shall implement measures to limit erosion and stabilize such areas. All construction activities on site shall be conducted in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (Guidelines) and the "Future Construction" section of this permit.

g. Management of Runoff: The Permittee shall investigate the need for stormwater management or treatment practices that shall be used to divert, infiltrate, reuse, or treat stormwater runoff in a manner that minimizes pollutants in stormwater discharges from the site. Any evaluation, construction or modification of the design of a stormwater drainage system requires certification by a professional engineer licensed to practice in the State of Connecticut. The Permittee shall implement and maintain stormwater management or treatment measures determined to be reasonable and appropriate to minimize the discharge of pollutants from the site.

In implementing infiltration practices, care shall be taken to avoid ground water contamination in accordance with Appendix C. Any stormwater infiltration measures implemented by the Permittee and located within an aquifer protection area as mapped under section 22a-354b of the Connecticut General Statutes shall be conducted pursuant to sections 8(c) and 9(b) of the Aquifer Protection Regulations (section 22a-354i(1)-(10) of the Regulations of Connecticut State Agencies). The Permittee shall assure that stormwater run-off generated from the regulated activity is managed in a manner so as to prevent pollution of groundwater, and shall comply with all the requirements of this permit.

The Permittee shall consider the potential of various sources at the facility to contribute pollutants to stormwater discharges associated with industrial activity when determining reasonable and appropriate measures. Where feasible, the Permittee shall divert uncontaminated run-on to avoid areas that may contribute pollutants. Other appropriate stormwater management or treatment measures may include but are not limited to: vegetative swales or buffer strips, reuse of collected stormwater (such as for process water, cooling water or as an irrigation source), treatment technologies (e.g. swirl concentrators, sand filters, etc.), snow management activities, bioretention cells, green roofs, pervious pavement and wet detention/retention basins. The Permittee shall ensure that such measures are properly designed, implemented and maintained in accordance with the Stormwater Quality Manual.

h. Preventive Maintenance: The Permittee shall implement a preventive maintenance program, which shall include but not be limited to: the inspection and maintenance of stormwater management devices (e.g. cleaning stormwater treatment devices, catch basins); the visual inspection and/or testing of on-site equipment and systems to identify conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters; and the

appropriate maintenance of such equipment and systems. These areas shall be included in the Routine Inspections required by this permit. If the Permittee maintains an existing preventive maintenance program that addresses the requirements of this control measure, they may use that program to meet this requirement. The existence of such a program and the location of its maintenance records shall be referenced in the Plan.

i. Spill Prevention and Response Procedures: The Permittee shall minimize the potential for leaks and spills. This shall include clearly identifying areas where potential spills can occur and their accompanying drainage points. The Permittee shall plainly label containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides," etc.) that could be susceptible to spillage or leakage in areas that could contribute pollutants to stormwater runoff. The Permittee shall identify procedures for containing, reporting and cleaning up spills. These procedures shall be provided to the appropriate personnel through Employee Training (subsection l, below) along with the necessary equipment to implement a cleanup. – reference existing spills and leaks plan

j. Dumpsters: The Permittee shall ensure that all dumpsters, trash compactors, and "roll-off" containers used to store waste or recyclable materials are in sound watertight condition and have covers and drain plugs intact, or are in roofed areas that will prevent exposure to rainfall and will not allow dumpster leakage to enter any stormwater drainage system. All covers on dumpsters not under a roof shall be closed when dumpsters are not being loaded or unloaded.

k. Loading Docks: The Permittee shall provide that for all industrial activities initiated after July 15, 2003, loading docks (excluding those that allow a vehicle to enter the building) shall be protected with a permanent roof or other structure that protects the loading dock from direct rainfall. Stormwater collection and drainage facilities adjacent to the loading dock shall be designed and maintained in a way that prevents any materials spilled or released at the loading dock from discharging to the storm sewer system.

l. Employee Training: The Permittee shall ensure that all employees whose activities may affect stormwater quality receive training within ninety (90) days of employment and at least once a year thereafter to make them familiar with the components and goals of these control measures and the Plan. Training shall address topics such as emergency equipment location, spill response management, control measures, inspection requirements, good housekeeping and materials management practices. Training shall be conducted or supervised by a qualified trainer or personnel who is a member of the Pollution Prevention Team and a written record shall be maintained in the Plan, including the date(s), employee name, employee responsibility and training agenda.

m. Non-Stormwater Discharges: The Permittee shall eliminate non-stormwater discharges except as provided in "Non-Stormwater Discharge Certification" or as authorized by an individual permit issued pursuant to section 22a-430 or a general permit issued pursuant to 22a-430b of the Connecticut General Statutes.

(6) Non-Stormwater Discharge Certification

The Plan shall include the following certification, signed by a professional engineer licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager:

"I certify that in my professional judgment, the stormwater discharge from the site consists only of stormwater, or of stormwater combined with wastewater authorized by an effective permit issued under section 22a-430 or section 22a-430b of the Connecticut General Statutes, including the

provisions of this permit, or of stormwater combined with any of the following discharges provided they do not contribute to a violation of water quality standards:

- landscape irrigation or lawn watering;
- uncontaminated groundwater discharges such as pumped groundwater, foundation drains, water from crawl space pumps and footing drains;
- discharges of uncontaminated air conditioner or refrigeration condensate;
- water sprayed for dust control or at a truck load wet-down station;
- naturally occurring discharges such as rising groundwaters, uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(20)), springs, and flows from riparian habitats and wetlands.

This certification is based on testing and/or evaluation of the stormwater discharge from the site. I further certify that all potential sources of non-stormwater at the site, a description of the results of any test and/or evaluation for the presence of non-stormwater discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test have been described in detail in the Stormwater Pollution Prevention Plan prepared for the site. I further certify that no interior building floor drains exist unless such floor drain connection has been approved and permitted by the commissioner or otherwise authorized by a local authority for discharge as domestic sewage to sanitary sewer. I am aware that there may be significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

(7) Consistency with Other Plans and Permits

The Plan may reference requirements contained in a Spill Prevention Control and Countermeasure (SPCC) plan or a plan prepared or approved under the Resource Conservation and Recovery Act (RCRA) and other plans required by state, federal or local law. A copy of the pertinent sections of any referenced plan shall be kept with the Plan. The Plan shall identify all general and individual permits issued by the DEEP for which the facility is authorized.

(8) Monitoring Program

A description of the monitoring program implemented to comply with the sampling requirements of Section 5, Table B of this permit.

(9) Inspections

a. Semi-Annual Inspections

The Permittee shall provide that a qualified inspector shall conduct comprehensive site inspections at appropriate intervals specified in the Plan, but in no event less frequently than twice a year. Such evaluations shall, at a minimum, include:

i. Visual inspection of material handling areas and other potential sources of pollution identified in the Plan for evidence of, or the potential for, pollutants entering the stormwater drainage system. Structural stormwater management measures, erosion control measures, control measures and other structural pollution prevention measures identified in the Plan shall be observed to ensure that they are implemented and maintained properly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made. Inspections should be made during rainfall events if possible.

ii. Preparation of a report summarizing the scope of the inspection, personnel making the inspection, the date(s) of the inspection, major observations relating to the Plan, actions taken, and updates made to the Plan shall be made and retained as part of the Stormwater Pollution Prevention Plan for at least five years. The report shall be signed by the Permittee.

b. Routine Inspections

In addition to the Semi-Annual Inspections required above, the Permittee shall identify in the Plan a qualified inspector (see Section 2: Definitions) verify most recent definition (template may be most recent) to visually inspect designated equipment and specific sensitive areas of the site at least monthly. A written set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections. Records of routine inspections shall be maintained in the Plan kept on-site.

(10) Benchmarks: These benchmarks apply to the discharge(s) identified in Section 5, Table B and Table I.

Chemical Oxygen Demand (mg/l)	75
Total Oil and Grease (mg/l)	5
Sample pH	5-9
Total Suspended Solids (mg/l)	90
Total Phosphorus (mg/l)	0.40
Total Kjeldahl Nitrogen (mg/l)	2.30
Nitrate as Nitrogen (mg/l)	1.10
Total Copper (mg/l)	0.059
Total Lead (mg/l)	0.076
Total Zinc (mg/l)	0.160

In accordance with "Keeping Plan Current" ((Section 10(E) below), should the average of four consecutive monitoring values exceeds the benchmark for any parameter, then the Permittee shall review the selection, design, installation and implementation of the control measures to determine if modifications are necessary to meet the benchmarks in this permit, and either:

- Make the necessary modifications to the control measures and Plan; or

- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to implement additional control measures or meet the benchmarks. The Permittee shall also document the rationale for concluding that no further pollutant reductions are achievable and submit this documentation to the Commissioner for written approval. The Permittee shall retain all records related to this documentation with the Plan.

If an exceedance of the four event average is mathematically certain, then the Permittee shall review the control measures and perform any required corrective action immediately (or document why no corrective action is required), without waiting for the full four monitoring events, in accordance with the "Keeping Plan Current" (Section 10(E) below). If after modifying the control measures and conducting additional monitoring, the average of the most recent 4 monitoring events still exceeds the benchmark (or if an exceedance of the benchmark by the 4 event average is mathematically certain for the most recent 4 monitoring events), the Permittee shall again review the control measures and take

one of the two actions above. **Provided the Permittee complies with all requirements of this Benchmark Monitoring section, exceedance of the benchmarks is not, in itself, a violation of this permit.**

(E) Keeping Plan Current - The Permittee shall amend the Plan whenever:

(1) there is a change at the site which has an effect on the potential to cause pollution of the surface waters of the state;

(2) the actions required by the Plan fail to ensure or adequately protect against pollution of the surface waters of the state; or

(3) the Commissioner requests modification of the Plan;

(4) the Permittee is notified that they are subject to requirements because the receiving water to which the industrial activity discharges has been designated as impaired under Section 303(d) of the Clean Water Act and as identified in the most recent State of Connecticut Integrated Water Quality Report;

(5) the Permittee is notified that a TMDL to which the Permittee is subject has been established for the stormwater receiving water;

(6) necessary to address any significant sources or potential sources of pollution identified as a result of any inspection or visual monitoring;

(7) required as a result of monitoring benchmarks or effluent limitations in "Monitoring" (Section 5 Table B) and as identified in Section 9(D)(10) of this permit.

The Plan shall be amended and all actions required by the Plan shall be completed within one hundred twenty (120) days (or within another interval as may be specified in permit or as may be approved in writing by the Commissioner) of the date the Permittee becomes aware or should have become aware that any of the conditions listed above has occurred.

If significant changes are made to the site or to the Plan in accordance with the paragraph above, the Plan shall be recertified in accordance with Section 9(C) of this permit. The Permittee shall maintain compliance with such Plan thereafter.

(F) Failure to Prepare or Amend Plan - In no event shall failure to complete or update a Plan in accordance with this permit relieve a Permittee of responsibility to implement actions required to protect the surface waters of the state, complete any actions that would have been required by such Plan, and to comply with all conditions of the permit.

This permit is hereby issued on

11/28/12

Macky McCleary
Deputy Commissioner
Department of Energy and Environmental Protection

MM/*

WASTEWATER DISCHARGE PERMIT: DATA TRACKING AND TECHNICAL FACT SHEET

Permittee: Hyponex Corporation

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: CT0030431 and SP0002457 APPLICATION #: 201005291 and 201201837

Mailing Address:						Location Address:					
Street:	P.O. Box 143					Street:	20 Industrial Park Drive				
City:	Lebanon	ST:	CT	Zip:	06249-0143	City:	Lebanon	ST:	CT	Zip:	06249
Contact Name:	Mark Cooper					DMR Contact	Mark Cooper				
Phone No.:	860-642-7591 x102					Phone No.:	860-642-7591 x102				

PERMIT INFORMATION

DURATION 5 YEAR X 10 YEAR ___ 30 YEAR ___

TYPE New _ Reissuance X Modification ___

CATEGORIZATION POINT () NON-POINT (X) GIS #:

NPDES (X) PRETREAT () GROUND WATER(UIC) ( ) GROUND WATER (OTHER) (X)

NPDES MAJOR(**MA**) ___
NPDES SIGNIFICANT MINOR or PRETREAT SIU (**SI**) ___
NPDES or PRETREATMENT MINOR (**MI**) X
PRETREAT SIGNIFICANT INDUS USER(**SIU**) ___
PRETREAT CATEGORICAL (**CIU**) ___
SIC Code _____

POLLUTION PREVENTION MANDATE _ ENVIRONMENTAL EQUITY ISSUE ___

COMPLIANCE SCHEDULE YES__ NO X

POLLUTION PREVENTION ___ TREATMENT REQUIREMENT__ WATER CONSERVATION__

WATER QUALITY REQUIREMENT __ REMEDIATION __ OTHER __

RECENT ENFORCEMENT HISTORY
Is the Permittee subject to a pending enforcement action? Yes ___ No X

OWNERSHIP CODE

Private _X_ Federal __ State __ Municipal (town only) __ Other public __

DEP STAFF ANALYST: Jillian Baker

PERMIT FEES

Discharge Code	DSN Number	Annual Fee
7220000	101-1	$2,020.00

FOR NPDES DISCHARGES (DSN 101-1)

Drainage Basin Code: 3800, Shetucket River Watershed Present Water Quality Standard: B

FOR GROUNDWATER DISCHARGES (DSN 101)

Drainage Basin Code: 3800, Shetucket River Watershed Present Water Quality Standard: GA

NATURE OF BUSINESS GENERATING DISCHARGE

The volume reduction facility composts grass, leaves and yard waste in outdoor windrows and recycles residuals from the treatment of drinking water in fields and on earthen and concrete pads on approximately 35 acres of a 166 acre site. Alum sludge is sometimes mixed with the composted material and stored separately from other composting material. At present, Hyponex can compost a maximum 120,000 tons per year of material and amendments. The facility is situated on the eastern side of Lebanon off of Route 207, near a rail line and the junction of Route 32. The property is located in a rural area.

PROCESS AND TREATMENT DESCRIPTION (by DSN)

(DSN 101A)
Stormwater discharges associated with the commercial composting facility are collected in one of three lagoons, and then are settled and reused (sprayed onto windrows of yard waste for moisture control or applied to unpaved roadways for dust control). Excess stormwater is transferred via pump or gravity drain between lagoons or infiltrated into the ground via spray irrigation if the lagoons reach their maximum capacity. DSN 101A is an internal monitoring point located at the pumping inlet to Lagoon 3.

(DSN 102)
Stormwater associated with industrial activity from the new warehouse and adjacent parking lots is collected in a basin, settled and discharged to Susquetonscut Brook.

(DSN 101-2 through 101-7)
Treated stormwater is pumped and applied as spray irrigation to an adjacent field down gradient of treatment lagoons. The stormwater discharged to groundwater through infiltration meets drinking water quality standards for specific pollutants prior to reaching the downgradient wetlands.

(DSN 103)
In the event of a 5-year storm or greater, stormwater runoff from commercial composting activities that is collected and treated in lagoon 3 is discharged via emergency spillway to Cold Stream Brook.

RESOURCES USED TO DRAFT PERMIT

X Department File Information

X Connecticut Water Quality Standards

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

X Best Professional Judgement (See Other Comments)

X Case by Case Determination (See Other Comments)

X In order to meet in-stream water quality (See General Comments)

X Anti-degradation policy

GENERAL COMMENTS

The facility was originally established by Earthgro, Inc., which was a wholly owned subsidiary of the Hyponex Corporation. The facility has been used to compost certain waste materials to create a marketable compost product since the mid-1980s. In the late 1980s, the facility had operational problems that violated environmental laws and were the subject of numerous complaints about odors, dust and noise. Additionally, the facility failed to control stormwater discharges in a manner that prevented pollution to the waters of the state. As a result of these problems, the Department issued Consent Order #1256A in 1992, requiring that Earthgro submit an application for a solid waste volume reduction facility for composting and requiring that the facility comply with applicable laws and regulations of the Department. With regard to preventing pollution to the waters of the state, this consent order required that Earthgro demonstrate that discharges and activities comply with Connecticut's water quality standards. In 2003, Earthgro was merged into Hyponex which assumed all of Earthgro's rights and obligations as part of the merger. Upon reissuance of the Solid Waste Facility Permit 0710710-PO, Hyponex Corporation will be permitted to compost the following wastes only: clean yard waste including grass, leaves, brush and clean wood waste as well as additives including: Alum residual, bark fines, paper pulp, peat moss, perlite, bark fines, finished mushroom compost, finished dehydrated manure, finished yard compost, loam, sand, silt, coir and osmocote.

OTHER COMMENTS

After an administrative hearing process in the 1990's, solid waste and water discharge permits were issued to Hyponex Corporation. This permit is a renewal of the NPDES permit issued in 2006 for stormwater discharges associated with the site. A review of the surface and groundwater monitoring performed from 2006-2010 showed that all effluent results are within permit limits and that the facility is in compliance.

The department has historically experienced concerns with presence of arsenic in stormwater and, given the material presented to be composted, now requires monitoring only of arsenic for stormwater discharges associated with commercial composting as listed in Table A.

Upon completion of construction covered under permit GSN002163 issued from 12/14/2010-9/30/2012, there will

be an additional industrial stormwater discharge from a new warehouse and prepack laydown lots (see DSN 102). The new stormwater discharge is collected in detention basins located downstream of the new lots and eventually discharges to the Susquetonscut Brook. Stormwater monitoring procedures and Pollution Prevention Plan requirements have been added to this permit consistent with the General Permit for the Discharge of Stormwater Associated with Industrial Activity issued 10/1/2011. The new stormwater discharge is incorporated into the existing individual wastewater permit, rather than issuing two separate permits for wastewater discharges that require similar monitoring. After review by the Bureau of Water Protection and Land Reuse, it has been confirmed that increasing the total stormwater discharge of the site will not significantly lower water quality in high quality waters. All detention basins constructed to collect runoff from the new stormwater discharge are designed to retain and infiltrate the first inch of rainfall which is consistent with the Best Management Practices of Appendix E, Section V: Tier 2 Antidegradation Evaluation and Implementation Review of the 2011 Connecticut Water Quality Standards.

Tables A and I of this permit reflect the stormwater monitoring requirements of the previously issued NPDES permit with revised monitoring according to the General Permit for the Discharge of Stormwater Associated with Industrial Activity. Table B sampling, monitoring and reporting corresponds entirely to the General Permit for the Discharge of Stormwater Associated with Industrial Activity. Tables C through H have been separated according to well number and renamed to correspond to typical discharge serial numbers associated with well sampling in order to simplify DMR reporting.