

**MODIFICATION OF AUTHORIZATION TO DISCHARGE UNDER
THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the “CWA”, and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

Barnhardt Manufacturing Company

is authorized to discharge from the facility located at

**Barnhardt Manufacturing Company
247 Main Road
Colrain, MA 01340**

to receiving water named

North River (Deerfield River Watershed)

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit issued on September 19, 2017, except as modified with new language in bold in Part I.B.5 on Page 11 of this modification (a new reopener clause for total copper) and new language in bold in footnote 9 on Page 6, which references the reopener clause.

This permit modification shall become effective on the date of signature.

This permit and the authorization to discharge expire at midnight, February 28, 2023.

This modified permit is issued pursuant to 40 C.F.R. §124.5, and revises and supersedes the permit that was issued on September 19, 2017.

This permit consists of this cover page, 14 pages in Part I including effluent limitations, monitoring requirements, reporting requirements and state permit conditions, 7 pages in Attachment A — Freshwater Chronic Toxicity Test Procedure and Protocol (March 2013), and 25 pages in Part II, the Standard Conditions.

Signed this 1st day of March , 2018

S/SIGNATURE ON FILE

Ken Moraff, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency
Region 1
Boston, MA

S/SIGNATURE ON FILE

Lealdon Langley, Director
Massachusetts Wetlands and Wastewater Programs
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. During the period beginning on the effective date and lasting through the expiration date, the Permittee is authorized to discharge treated process water through **Outfall Serial Number 001** to the North River. Such discharge shall be limited and monitored by the Permittee as specified below:

Effluent Characteristic	Discharge Limitation		Monitoring Requirements ^{1,2}	
	Average Monthly	Maximum Daily	Measurement Frequency ^{3,4}	Sample Type
Flow Rate ⁵	Report MGD	0.89 MGD	Continuous	Recorder
pH ⁶	6.5 - 9.0 SU		1/day	Grab
Production Rate ⁷	Report	Report	1/day	Estimate
BOD ₅	292 lbs/day	510 lbs/day	1/month	Composite ⁸
Total Suspended Solids (TSS)	350 lbs/day	510 lbs/day	1/month	Composite ⁸
COD	3640 lbs/day	7280 lbs/day	1/quarter	Composite ⁸
Sulfide, Total	1.0 lb/day	2.0 lbs/day	1/quarter	Grab
Chromium, Total	Report lbs/day	1.1 lbs/day	1/year	Composite ⁸
Phenols, Total	Report lbs/day	1.0 lb/day	1/quarter	Grab
Ammonia-Nitrogen (as N)	Report mg/l and lbs/day	Report mg/l and lbs/day	1/quarter	Composite ⁸
Total Kjeldahl Nitrogen (TKN)	Report mg/l and lbs/day	Report mg/l and lbs/day	2/month	Composite ⁸
Nitrite-Nitrate (as N)	Report mg/l and lbs/day	Report mg/l and lbs/day	2/month	Composite ⁸
Total Nitrogen	Report lbs/day	Report lbs/day	2/month	Composite ⁸
Total Phosphorus (May – October) ⁹	Report/1.26mg/l	Report mg/l	1/month	Composite ⁸
Total Phosphorus (November-April)	Report mg/l	Report mg/l	1/month	Composite ⁸
<i>E. Coli</i> (April 1 – October 31)	126 cfu/100 ml	409 cfu/100 ml	1/week	Grab
Copper, Total ⁹	Report/22 µg/l	Report/ 22 µg/l	1/month	Composite ⁸
Temperature	Report °F	Report °F	1/month	Grab

See pages 5 and 6 for footnotes

CONTINUED FROM PREVIOUS PAGE

Effluent Characteristic	Discharge Limitation	Monitoring Requirements ^{1,2}	
	Maximum Daily	Measurement Frequency ^{3,4}	Sample Type
Whole Effluent Toxicity ^{10,11,12}			
LC ₅₀	≥ 100 %	1/quarter	Composite ⁸
C-NOEC ⁹	≥ 5 %, ≥ 7.2 %	1/quarter	Composite ⁸
Hardness	Report mg/L	1/quarter	Composite ⁸
Total Residual Chlorine	Report mg/L	1/quarter	Grab
Alkalinity	Report mg/L	1/quarter	Composite ⁸
pH	Report SU	1/quarter	Grab
Specific Conductance	Report µmhos/cm	1/quarter	Composite ⁸
Total Solids	Report mg/L	1/quarter	Composite ⁸
Ammonia	Report mg/L	1/quarter	Composite ⁸
Total Organic Carbon	Report mg/L	1/quarter	Composite ⁸
Cadmium, Total Recoverable	Report mg/L	1/quarter	Composite ⁸
Lead, Total Recoverable	Report mg/L	1/quarter	Composite ⁸
Copper, Total Recoverable	Report mg/L	1/quarter	Composite ⁸
Zinc, Total Recoverable	Report mg/L	1/quarter	Composite ⁸
Nickel, Total Recoverable	Report mg/L	1/quarter	Composite ⁸
Aluminum, Total Recoverable	Report mg/L	1/quarter	Composite ⁸
Total Dissolved Solids	Report mg/L	1/quarter	Composite ⁸

See pages 5 and 6 for footnotes

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During the period beginning on the effective date and lasting through the expiration date, the Permittee is authorized to discharge treated process water through **Outfall Serial Number 001** to the North River. The three (3) samples taken from the North River, considered to be the receiving water control, shall be monitored by the Permittee as specified below as required by the Whole Effluent Toxicity testing requirement.

Ambient Characteristic ¹¹	Ambient Reporting Requirements	Monitoring Requirements ^{1,2}	
	Maximum Daily	Measurement Frequency ^{3,4}	Sample Type
Hardness	Report mg/L	1/quarter	Grab
Alkalinity	Report mg/L	1/quarter	Grab
pH	Report SU	1/quarter	Grab
Specific Conductance	Report µmhos/cm	1/quarter	Grab
Ammonia	Report mg/L	1/quarter	Grab
Total Organic Carbon	Report mg/L	1/quarter	Grab
Cadmium, Total Recoverable	Report mg/L	1/quarter	Grab
Lead, Total Recoverable	Report mg/L	1/quarter	Grab
Copper, Total Recoverable	Report mg/L	1/quarter	Grab
Zinc, Total Recoverable	Report mg/L	1/quarter	Grab
Nickel, Total Recoverable	Report mg/L	1/quarter	Grab
Aluminum, Total Recoverable	Report mg/L	1/quarter	Grab

See pages 5 and 6 for footnotes

Footnotes:

1. The samples for Outfall 001 shall be collected at the discharge point to the North River. Samples shall be taken at a consistent location(s) and consistent times which yield data representative of the process water effluent just prior to discharge to the North River and prior to comingling with any non-process waters, if such comingling occurs. Changes in sampling location must be approved in writing by the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP).
2. In accordance with 40 C.F.R. § 122.44(i)(1)(iv), the Permittee shall use sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O, for the analysis of pollutants or pollutant parameters limited in this permit (except WET limits). A method is considered “sufficiently sensitive” when either (1) the method minimum level (ML) is at or below the level of the effluent limit established in this permit for the measured pollutant or pollutant parameter; or (2) the method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O for the measured pollutant or pollutant parameter. The ML is not the minimum level of detection, but rather the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for a pollutant or pollutant parameter, representative of the lowest concentration at which a pollutant or pollutant parameter can be measured with a known level of confidence. For the purposes of this permit, the detection limit (DL) is the lowest concentration that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method during routine laboratory operating conditions (i.e., the level above which an actual value is reported for an analyte, and the level below which an analyte is reported as non-detect).
3. Measurement frequency of 1/day is defined as the recording of one measurement for each 24 hour period. Measurement frequency of 1/week is defined as the sampling of one discharge event in each seven-day period. Measurement frequency of 1/month is defined as the sampling of one discharge event in each calendar month. Measurement frequency of 1/year is defined as the sampling of one discharge event which occurs during the month of May. Quarterly samples shall be collected during the second weeks in January, April, July, and October.
4. The Permittee shall submit the results to EPA of any additional testing done above that which is required herein, if it is in accordance with EPA approved methods. If no sampling result can be reported during one or more of the measurement frequencies defined above, the Permittee must report the appropriate No Data Indicator Code (e.g., “C” for “No Discharge”) found in Attachment E of *NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs)*.
5. Flow rate shall be reported in million gallons per day (MGD). The flow shall be continuously measured and recorded using a flow meter. The total flow for each operating date shall be recorded and attached to each monthly DMR form.
6. The pH of the effluent shall be not less than 6.5 or greater than 9.0 standard units (s.u.) but not more than 0.5 standard units outside of the naturally occurring range. There shall be no change from natural background conditions that would impair any use assigned to the class of the receiving water.
7. Total production rate of finished goods in pounds per day.
8. A 24-hour composite shall consist of twenty-four (24) grab samples collected at hourly intervals during a twenty-four hour period (i.e., 0700 Monday to 0700 Tuesday), combined proportionally to flow.

9. For the parameters total copper and total phosphorus (May through October), there will be a monitor only requirement for the period starting on the effective date of this permit and ending three (3) years after the effective date. This is consistent with the three (3) year compliance schedule outlined in Part I.B.4 of the final permit. After this 3 year period, the permittee shall comply with the monthly average and daily maximum total copper limits of 22 µg/l as well as the seasonal, monthly average total phosphorus limit of 1.26 mg/l. For the chronic-no observed effect concentration (C-NOEC), the prior permit limit of $\geq 5\%$ will be in effect for the first three (3) years of the permit as specified above in this footnote. After this 3 year period, the revised limit of $\geq 7.2\%$ will go into effect. See Part I.B.4 for additional requirements regarding the compliance schedule **and Part I.B.5 for copper reopener clause.**
10. The Permittee shall conduct chronic whole effluent toxicity (WET) tests once per calendar quarter following the effective date of the permit. The tests must be performed in accordance with test procedures and protocols specified in Attachment A of this permit using the daphnid, *Ceriodaphnia dubia*. LC₅₀ and C-NOEC are defined in Part II.E.3 of this permit. WET test samples shall be collected during the months of January, April, July, and October and the test results shall be submitted with the discharge monitoring reports (DMRs), no later than the 15th day of the month following the completed reporting period. For example, the WET test results for January shall be submitted with the February DMR, no later than March 15th.

WET Testing Months	Submit Results by:	Test Species	Chronic Limit	Acute Limit
January April July October	March 15 th June 15 th September 15 th December 15 th	<i>Ceriodaphnia dubia</i> (daphnid)	C-NOEC $\geq 7.2\%$	LC ₅₀ $\geq 100\%$

11. The Permittee shall conduct the analyses specified in Attachment A, Part VI. CHEMICAL ANALYSIS, of this permit. **For 100% effluent**, the Permittee shall report results for the parameters listed on Page 3, Part I.A., Whole Effluent Toxicity, hardness through total dissolved solids, inclusive. The dilution water sample for the WET tests shall be **a receiving water control** (i.e., 0% effluent) consisting of three grab samples (defined in Part II.E.) collected from the North River at a point immediately upstream, outside of Outfall 001's zone of influence at a reasonably accessible location and taken over a 1-hour period. For this receiving water control, the Permittee shall report results for the parameters listed on Page 4. Even where an alternate dilution water is permitted, the receiving water control (0% effluent) must still be analyzed. MLs and methods are specified in Attachment A., Part VI. CHEMICAL ANALYSIS. Sampling for any parameter required for WET may be used to satisfy any duplicative sampling required for that parameter in this permit, so long as the timing of sampling for WET coincides with the sample timing otherwise required for that parameter within this permit.
12. If the toxicity test uses receiving water as diluent and the receiving water is found to be toxic or unreliable, the permittee shall follow procedures outlined in Section IV (Dilution Water) of Attachment A in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in Attachment A, EPA-New England has developed a Self-Implementing Alternative Dilution Water Guidance document (called "Guidance Document") which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. This guidance document may be found at: <https://www3.epa.gov/region1/npdes/permits/generic/Alternatedilutionwaterguidance.pdf>. If this Guidance Document is revoked, the permittee shall revert to obtaining approval as outlined in Attachment A. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in Attachment A.

Part I.A. continued.

2. The discharge shall not cause a violation of the water quality standards of the receiving waters.
3. The discharge shall not contain floating, suspended and settleable solids, oil and grease, petrochemicals and other volatile or synthetic organic pollutants.
4. The discharge shall not produce objectionable odor, color, taste, or turbidity.
5. The discharge shall not contain pollutants in concentrations or combinations or cause alterations that impair the existing uses of the receiving water, or interfere with the attainment of designated uses in the receiving water or downstream and adjacent waterbody segments.
6. The discharge shall not contain pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife.
7. The Permittee shall properly operate and maintain the pollution control equipment.
8. The Permittee shall implement preventative maintenance procedures for the pollution control equipment.
9. The Permittee shall implement procedures and maintenance schedule for removal and disposal of solids and/or sludge.
10. The permittee shall not use fungicides or slimicides containing trichlorophenol or pentachlorophenol.
11. Any intake water that is used solely for cooling purposes shall not be directly returned to the receiving water.
12. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 C.F.R. §122.42):
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - i. 100 micrograms per liter ($\mu\text{g/L}$);
 - ii. 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ for 2,4-dinitrophenol; and one milligram per liter (mg/L) for antimony;
 - iii. Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or

- iv. Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f) and Massachusetts regulations.
 - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - i. 500 µg/L;
 - ii. One mg/L for antimony;
 - iii. 10 times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
 - iv. Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f) and Massachusetts regulations.
- 13. This permit may be modified in accordance with 40 C.F.R. Section 122.62(a)(3) if the standards or regulations on which the permit is based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit is issued in accordance with 40 C.F.R. Section 122.62(a)(3).

B. SPECIAL CONDITIONS

1. Best Management Practices (BMP) Plan

The permittee shall continue to implement and maintain a Best Management Practices (BMP) Plan designed to reduce or prevent the discharge of pollutants in process water to waters of the United States. The BMP Plan shall be a written document that is consistent with the terms of the permit and identifies and describes the BMPs employed by the facility in operating process water controls.

Within six months following the effective date of the permit, the Permittee shall update and certify that the BMP Plan meets the requirements of this permit, and that it reduces the pollutants discharged in process water to the extent practicable. The BMP Plan and certification shall be signed in accordance with the requirements identified in 40 C.F.R. §122.22. A copy of the BMP Plan and certification shall be maintained at the Permittee’s facility and made available to EPA and MassDEP upon request.

The permittee shall amend and update the BMP Plan **within thirty (30) days** for any changes at the facility affecting the BMP Plan. Such changes may include, but are not limited to, changes in the design, construction, operation, or maintenance of the facility, which have a significant effect on the potential for the discharge of pollutants to the waters of the United States. The amended BMP Plan shall be certified as described above.

The permittee shall certify at least annually that the facility is in compliance with the requirements of the BMP Plan. If the facility is not in compliance with any aspect of the BMP Plan, the annual certification shall state the noncompliance (e.g., a selected BMP is not achieving the control necessary to meet a numeric or non-numeric effluent limitation) and the actions which were undertaken to remedy such noncompliance (e.g., the selection, design and implementation of an alternate BMP). Such annual certifications shall be signed, maintained at the facility, and made available to EPA and MassDEP as described above.

The BMP Plan shall include, at a minimum, the following items:

- a. Selection, design, installation, implementation and maintenance of control measures necessary to meet the effluent limitations in this permit, including the non-numeric limitations and conditions in Part I.A. Any control measures shall be used in accordance with good engineering practices and manufacturer's specifications.
- b. A description of the pollution control equipment and procedures used to minimize the discharge of suspended solids, floating solids, foam/scum/debris, visible oil sheen, and settleable solids to surface waters.
- c. Preventative maintenance procedures for the pollution control equipment.
- d. Procedures for handling facility wastes, including schedules for removal, handling and disposal of materials, a description of where solids removed from the pollution control equipment or appurtenances, including sludge, are stored and/or disposed of, and the control measures used to prevent the removed solids from reentering the receiving water. If facility wastes are removed from the site, describe the destination and the method of disposal and/or reuse.
- e. A record of the following information for all chemicals and additives used at the facility, including all chemicals used in the treatment processes at the facility (flocculation, clarification, filtration, and disinfection), and for control of biological growth, and corrosion and scale in water pipes:
 - i. Product name, chemical formula, and manufacturer of the additive;
 - ii. Purpose or use of the additive;
 - iii. Material Safety Data Sheet (MSDS) and Chemical Abstracts Service (CAS) Registry number for each additive;
 - iv. The frequency (e.g., hourly, daily), duration (e.g., hours, days), quantity (e.g., maximum and average), and method of application for the additive; and
 - v. The vendor's reported aquatic toxicity, when available (NOAEL and/or LC50 in percent for aquatic organism(s)).

- f. A description of the training to be provided for employees to assure they understand the goals, objectives, and procedures of the BMP Plan, the requirements of the NPDES Permit, and their individual responsibilities for complying with the goals and objectives of the BMP Plan and the NPDES permit.
- g. Minimum documentation requirements are as follows:
 - i. Records of operational and preventive maintenance activities, equipment inspections, procedure audits, and personnel training;
 - ii. Records of the collection and analysis of samples, including, but not limited to, sample location, any calculations done at the time of sampling, any sampling or analytical methods used for samples analyzed on site, and sample results; and
 - iii. All documentation of BMP Plan activities shall be kept at the facility and provided to EPA or MassDEP upon request.

2. Treatment Plant Optimization for Nitrogen

The permittee shall complete an evaluation of alternative methods of operating its existing wastewater treatment facility to optimize the removal of nitrogen, and submit a report to EPA and MassDEP documenting this evaluation. This report shall present a description of recommended operational changes within one (1) year of the effective date of the permit. The permittee shall implement the recommended operational changes in order to maintain the existing mass discharge loading of total nitrogen, which will be measured as an annual average. The annual average total nitrogen load from this facility (for the period of March 2011 – March 2016) is estimated to be 67.3 lbs/day. The permittee shall submit an annual report due by January 15th of each year and submitted with the December DMR that summarizes activities related to optimizing the effectiveness of nitrogen removal methods. The report shall also include documentation of the annual nitrogen discharge load from the facility and how that load compares to previous years.

3. Whole Effluent Toxicity (WET) Testing Reduction

The Permittee may request a reduction in Whole Effluent Toxicity testing requirements by submitting results for a minimum of four (4) consecutive tests, all of which must be valid tests that demonstrate compliance with the WET testing requirements in this permit. Until written notice is received from EPA indicating that the WET testing requirements have been changed, the Permittee is required to continue testing as specified in this permit.

4. Compliance Schedule

The Permittee shall have up to three (3) years to comply with the new effluent limits for total copper and seasonal total phosphorus, and the more stringent C-NOEC limit. For the period starting on the effective date of this permit and ending three (3) years after the effective date, the permittee is required to monitor only and report monthly for total copper and total phosphorus for the seasonal period of May through October. After this initial three (3) year period, the permittee shall comply with the monthly average and daily maximum total copper limits of 22 µg/l as well as the seasonal, monthly average total phosphorus limit of 1.26 mg/l. For the chronic-no observed effect concentration (C-NOEC), the limit of $\geq 5\%$ will be in effect for the first three (3) years of the permit. After this three (3) year period, the revised limit of $\geq 7.2\%$ will go into effect.

The permittee shall submit an annual report due by January 15th of each of the first three (3) years of the permit which will detail its progress towards meeting the final permit limits for the parameters listed above. This annual report shall be submitted with the December DMR.

5. Reopener Clause for Total Copper Limit

If within three (3) years of the effective date of the permit, MassDEP has promulgated a site specific copper water quality criterion for the North River, or the Permittee has submitted to MassDEP site specific study data to support a determination of such a site specific copper water quality criterion, the Permittee may request a Permit Modification to extend the compliance period for attaining the effluent limit for total copper beyond the original three (3) year period.

C. REPORTING REQUIREMENTS

The monitoring program in the permit specifies sampling and analysis, which will provide continuous information on compliance and the reliability and effectiveness of the installed pollution abatement equipment. The approved analytical procedures found in 40 C.F.R. Part 136 are required unless other procedures are explicitly required in the permit. The Permittee is obligated to monitor and report sampling results to EPA and the MassDEP within the time frames specified within the permit.

Unless otherwise specified in this permit, the permittee shall submit reports, requests, and information and provide notices in the manner described in this section.

1. Submittal of DMRs Using NetDMR

The permittee shall continue to submit its monthly monitoring data in discharge monitoring reports (DMRs) to EPA and MassDEP no later than the 15th day of the month electronically using NetDMR. When the permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to EPA or MassDEP.

2. Submittal of Reports as NetDMR Attachments

Unless otherwise specified in this permit, the permittee shall electronically submit all reports to EPA as NetDMR attachments rather than as hard copies. Permittees shall continue to send hard copies of reports other than DMRs to MassDEP until further notice from MassDEP. (See Part I.C.5 for more information on state reporting.) Because the due dates for reports described in this permit may not coincide with the due date for submitting DMRs (which is no later than the 15th day of the month), a report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the particular report due date specified in this permit.

3. Submittal of Requests and Reports to EPA/OEP

The following requests, reports, and information described in this permit shall be submitted to the EPA/OEP NPDES Applications Coordinator in the EPA Office Ecosystem Protection (OEP).

- A. Transfer of permit notice
- B. Request for changes in sampling location
- C. Request for reduction in testing frequency
- D. Request for reduction in WET testing requirement
- E. Report on unacceptable dilution water / request for alternative dilution water for WET testing
- F. Notification of proposal to add or replace chemicals additives and bio-remedial agents including microbes
- G. Evaluation of Alternative Methods for Nitrogen Removal Report
- H. Annual Nitrogen Removal Optimization Reports
- I. Annual Compliance Schedule Reports for Copper, Phosphorus, and WET

These reports, information, and requests shall be submitted to EPA/OEP electronically at R1NPDES.Notices.OEP@epa.gov or by hard copy mail to the following address:

**U.S. Environmental Protection Agency
Office of Ecosystem Protection
EPA/OEP NPDES Applications Coordinator
5 Post Office Square - Suite 100 (OEP06-03)
Boston, MA 02109-3912**

4. Submittal of Reports in Hard Copy Form

The following notifications and reports shall be submitted as hard copy with a cover letter describing the submission. These reports shall be signed and dated originals submitted to EPA.

- A. Written notifications required under Part II
- B. Notice of unauthorized discharges

This information shall be submitted to EPA/OES at the following address:

**U.S. Environmental Protection Agency
Office of Environmental Stewardship (OES)
Water Technical Unit
5 Post Office Square, Suite 100 (OES04-SMR)
Boston, MA 02109-3912**

5. State Reporting

Transfer or termination of permit notices shall be submitted to:

**MassDEP
Bureau of Water Resources
Wastewater Management Program
1 Winter Street, 5th Floor
Boston, MA 02108**

Unless otherwise specified in this permit, duplicate signed copies of all reports, information, requests or notifications described in this permit, including the reports, information, requests or notifications described in Parts I.C.3 and I.C.4 shall also be submitted to the State at the following addresses:

**MassDEP – Western Region
Bureau of Water Resources
436 Dwight Street, Suite 402
Springfield, MA 01103**

Except that, copies of toxicity tests and annual nitrogen optimization reports shall be submitted to:

**Massachusetts Department of Environmental Protection
Watershed Planning Program
8 New Bond Street
Worcester, Massachusetts 01606**

6. Verbal Reports and Verbal Notifications

Any verbal reports or verbal notifications, if required in Parts I and/or II of this permit, shall be made to both EPA and to MassDEP. This includes verbal reports and notifications which require reporting within 24 hours. (As examples, see Part II.B.4.c. (2), Part II.B.5.c. (3), and Part II.D.1.e.) Verbal reports and verbal notifications shall be made to EPA's Office of Environmental Stewardship at: **617-918-1510**

D. STATE PERMIT CONDITIONS

1. This authorization to discharge includes two separate and independent permit authorizations. The two permit authorizations are (i) a federal National Pollutant Discharge Elimination System permit issued by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal Clean Water Act, 33 U.S.C. §§1251 et seq.; and (ii) an identical state surface water discharge permit issued by the Commissioner of the Massachusetts Department of Environmental Protection (MassDEP) pursuant to the Massachusetts Clean Waters Act, M.G.L. c. 21, §§26-53, and 314 C.M.R. 3.00. All of the requirements contained in this authorization, as well as the standard conditions contained in 314 C.M.R. 3.19, are hereby incorporated by reference into this state surface water discharge permit.
2. This authorization also incorporates the state water quality certification issued by MassDEP under §401(a) of the Federal Clean Water Act, 40 CFR 124.53, M.G.L. c. 21, §27 and 314 CMR 3.07. All of the requirements (if any) contained in MassDEP's water quality certification for the permit are hereby incorporated by reference into this state surface water discharge permit as special conditions pursuant to 314 CMR 3.11.
3. Each Agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of Federal law, this permit shall remain in full force and effect under State law as a permit issued by the Commonwealth of Massachusetts.

**MODIFICATION OF AUTHORIZATION TO DISCHARGE UNDER
THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the “CWA”, and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

Barnhardt Manufacturing Company

is authorized to discharge from the facility located at

**Barnhardt Manufacturing Company
247 Main Road
Colrain, MA 01340**

to receiving water named

North River (Deerfield River Watershed)

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit issued on September 19, 2017, except as modified with new language in bold in Part I.B.5 on Page 11 of this modification (a new reopener clause for total copper) and new language in bold in footnote 9 on Page 6, which references the reopener clause.

This permit modification shall become effective on the first day of the calendar month following sixty (60) days after signature if comments are received.*

This permit and the authorization to discharge expire at midnight, November 30, 2022.

This modified permit is issued pursuant to 40 C.F.R. §124.5, and revises and supersedes the permit that was issued on September 19, 2017.

This permit consists of this cover page, 14 pages in Part I including effluent limitations, monitoring requirements, reporting requirements and state permit conditions, 7 pages in Attachment A — Freshwater Chronic Toxicity Test Procedure and Protocol (March 2013), and 25 pages in Part II, the Standard Conditions.

Signed this day of , 2018

Ken Moraff, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency
Region 1
Boston, MA

Lealdon Langley, Director
Massachusetts Wetlands and Wastewater Programs
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

* Pursuant to 40 C.F.R. 124.15(b)(3), if no comments requesting a change to the draft permit modification are received, the permit modification will become effective upon the date of signature.

PART I**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. During the period beginning on the effective date and lasting through the expiration date, the Permittee is authorized to discharge treated process water through **Outfall Serial Number 001** to the North River. Such discharge shall be limited and monitored by the Permittee as specified below:

Effluent Characteristic	Discharge Limitation		Monitoring Requirements ^{1,2}	
	Average Monthly	Maximum Daily	Measurement Frequency ^{3,4}	Sample Type
Flow Rate ⁵	Report MGD	0.89 MGD	Continuous	Recorder
pH ⁶	6.5 - 9.0 SU		1/day	Grab
Production Rate ⁷	Report	Report	1/day	Estimate
BOD ₅	292 lbs/day	510 lbs/day	1/month	Composite ⁸
Total Suspended Solids (TSS)	350 lbs/day	510 lbs/day	1/month	Composite ⁸
COD	3640 lbs/day	7280 lbs/day	1/quarter	Composite ⁸
Sulfide, Total	1.0 lb/day	2.0 lbs/day	1/quarter	Grab
Chromium, Total	Report lbs/day	1.1 lbs/day	1/year	Composite ⁸
Phenols, Total	Report lbs/day	1.0 lb/day	1/quarter	Grab
Ammonia-Nitrogen (as N)	Report mg/l and lbs/day	Report mg/l and lbs/day	1/quarter	Composite ⁸
Total Kjeldahl Nitrogen (TKN)	Report mg/l and lbs/day	Report mg/l and lbs/day	2/month	Composite ⁸
Nitrite-Nitrate (as N)	Report mg/l and lbs/day	Report mg/l and lbs/day	2/month	Composite ⁸
Total Nitrogen	Report lbs/day	Report lbs/day	2/month	Composite ⁸
Total Phosphorus (May – October) ⁹	Report/1.26mg/l	Report mg/l	1/month	Composite ⁸
Total Phosphorus (November-April)	Report mg/l	Report mg/l	1/month	Composite ⁸
<i>E. Coli</i> (April 1 – October 31)	126 cfu/100 ml	409 cfu/100 ml	1/week	Grab
Copper, Total ⁹	Report/22 µg/l	Report/ 22 µg/l	1/month	Composite ⁸
Temperature	Report °F	Report °F	1/month	Grab

See pages 5 and 6 for footnotes

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Effluent Characteristic	Discharge Limitation	Monitoring Requirements ^{1,2}	
	Maximum Daily	Measurement Frequency ^{3,4}	Sample Type
Whole Effluent Toxicity ^{10,11,12}			
LC ₅₀	≥ 100 %	1/quarter	Composite ⁸
C-NOEC ⁹	≥ 5 %, ≥ 7.2 %	1/quarter	Composite ⁸
Hardness	Report mg/L	1/quarter	Composite ⁸
Total Residual Chlorine	Report mg/L	1/quarter	Grab
Alkalinity	Report mg/L	1/quarter	Composite ⁸
pH	Report SU	1/quarter	Grab
Specific Conductance	Report µmhos/cm	1/quarter	Composite ⁸
Total Solids	Report mg/L	1/quarter	Composite ⁸
Ammonia	Report mg/L	1/quarter	Composite ⁸
Total Organic Carbon	Report mg/L	1/quarter	Composite ⁸
Cadmium, Total Recoverable	Report mg/L	1/quarter	Composite ⁸
Lead, Total Recoverable	Report mg/L	1/quarter	Composite ⁸
Copper, Total Recoverable	Report mg/L	1/quarter	Composite ⁸
Zinc, Total Recoverable	Report mg/L	1/quarter	Composite ⁸
Nickel, Total Recoverable	Report mg/L	1/quarter	Composite ⁸
Aluminum, Total Recoverable	Report mg/L	1/quarter	Composite ⁸
Total Dissolved Solids	Report mg/L	1/quarter	Composite ⁸

See pages 5 and 6 for footnotes

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During the period beginning on the effective date and lasting through the expiration date, the Permittee is authorized to discharge treated process water through **Outfall Serial Number 001** to the North River. The three (3) samples taken from the North River, considered to be the receiving water control, shall be monitored by the Permittee as specified below as required by the Whole Effluent Toxicity testing requirement.

Ambient Characteristic ¹¹	Ambient Reporting Requirements	Monitoring Requirements ^{1,2}	
	Maximum Daily	Measurement Frequency ^{3,4}	Sample Type
Hardness	Report mg/L	1/quarter	Grab
Alkalinity	Report mg/L	1/quarter	Grab
pH	Report SU	1/quarter	Grab
Specific Conductance	Report µmhos/cm	1/quarter	Grab
Ammonia	Report mg/L	1/quarter	Grab
Total Organic Carbon	Report mg/L	1/quarter	Grab
Cadmium, Total Recoverable	Report mg/L	1/quarter	Grab
Lead, Total Recoverable	Report mg/L	1/quarter	Grab
Copper, Total Recoverable	Report mg/L	1/quarter	Grab
Zinc, Total Recoverable	Report mg/L	1/quarter	Grab
Nickel, Total Recoverable	Report mg/L	1/quarter	Grab
Aluminum, Total Recoverable	Report mg/L	1/quarter	Grab

See pages 5 and 6 for footnotes

Footnotes:

1. The samples for Outfall 001 shall be collected at the discharge point to the North River. Samples shall be taken at a consistent location(s) and consistent times which yield data representative of the process water effluent just prior to discharge to the North River and prior to comingling with any non-process waters, if such comingling occurs. Changes in sampling location must be approved in writing by the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP).
2. In accordance with 40 C.F.R. § 122.44(i)(1)(iv), the Permittee shall use sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O, for the analysis of pollutants or pollutant parameters limited in this permit (except WET limits). A method is considered “sufficiently sensitive” when either (1) the method minimum level (ML) is at or below the level of the effluent limit established in this permit for the measured pollutant or pollutant parameter; or (2) the method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O for the measured pollutant or pollutant parameter. The ML is not the minimum level of detection, but rather the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for a pollutant or pollutant parameter, representative of the lowest concentration at which a pollutant or pollutant parameter can be measured with a known level of confidence. For the purposes of this permit, the detection limit (DL) is the lowest concentration that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method during routine laboratory operating conditions (i.e., the level above which an actual value is reported for an analyte, and the level below which an analyte is reported as non-detect).
3. Measurement frequency of 1/day is defined as the recording of one measurement for each 24 hour period. Measurement frequency of 1/week is defined as the sampling of one discharge event in each seven-day period. Measurement frequency of 1/month is defined as the sampling of one discharge event in each calendar month. Measurement frequency of 1/year is defined as the sampling of one discharge event which occurs during the month of May. Quarterly samples shall be collected during the second weeks in January, April, July, and October.
4. The Permittee shall submit the results to EPA of any additional testing done above that which is required herein, if it is in accordance with EPA approved methods. If no sampling result can be reported during one or more of the measurement frequencies defined above, the Permittee must report the appropriate No Data Indicator Code (e.g., “C” for “No Discharge”) found in Attachment E of *NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs)*.
5. Flow rate shall be reported in million gallons per day (MGD). The flow shall be continuously measured and recorded using a flow meter. The total flow for each operating date shall be recorded and attached to each monthly DMR form.
6. The pH of the effluent shall be not less than 6.5 or greater than 9.0 standard units (s.u.) but not more than 0.5 standard units outside of the naturally occurring range. There shall be no change from natural background conditions that would impair any use assigned to the class of the receiving water.
7. Total production rate of finished goods in pounds per day.
8. A 24-hour composite shall consist of twenty-four (24) grab samples collected at hourly intervals during a twenty-four hour period (i.e., 0700 Monday to 0700 Tuesday), combined proportionally to flow.

9. For the parameters total copper and total phosphorus (May through October), there will be a monitor only requirement for the period starting on the effective date of this permit and ending three (3) years after the effective date. This is consistent with the three (3) year compliance schedule outlined in Part I.B.4 of the final permit. After this 3 year period, the permittee shall comply with the monthly average and daily maximum total copper limits of 22 µg/l as well as the seasonal, monthly average total phosphorus limit of 1.26 mg/l. For the chronic-no observed effect concentration (C-NOEC), the prior permit limit of $\geq 5\%$ will be in effect for the first three (3) years of the permit as specified above in this footnote. After this 3 year period, the revised limit of $\geq 7.2\%$ will go into effect. See Part I.B.4 for additional requirements regarding the compliance schedule **and Part I.B.5 for copper reopener clause.**
10. The Permittee shall conduct chronic whole effluent toxicity (WET) tests once per calendar quarter following the effective date of the permit. The tests must be performed in accordance with test procedures and protocols specified in Attachment A of this permit using the daphnid, *Ceriodaphnia dubia*. LC₅₀ and C-NOEC are defined in Part II.E.3 of this permit. WET test samples shall be collected during the months of January, April, July, and October and the test results shall be submitted with the discharge monitoring reports (DMRs), no later than the 15th day of the month following the completed reporting period. For example, the WET test results for January shall be submitted with the February DMR, no later than March 15th.

WET Testing Months	Submit Results by:	Test Species	Chronic Limit	Acute Limit
January April July October	March 15 th June 15 th September 15 th December 15 th	<i>Ceriodaphnia dubia</i> (daphnid)	C-NOEC $\geq 7.2\%$	LC ₅₀ $\geq 100\%$

11. The Permittee shall conduct the analyses specified in Attachment A, Part VI. CHEMICAL ANALYSIS, of this permit. **For 100% effluent**, the Permittee shall report results for the parameters listed on Page 3, Part I.A., Whole Effluent Toxicity, hardness through total dissolved solids, inclusive. The dilution water sample for the WET tests shall be **a receiving water control** (i.e., 0% effluent) consisting of three grab samples (defined in Part II.E.) collected from the North River at a point immediately upstream, outside of Outfall 001's zone of influence at a reasonably accessible location and taken over a 1-hour period. For this receiving water control, the Permittee shall report results for the parameters listed on Page 4. Even where an alternate dilution water is permitted, the receiving water control (0% effluent) must still be analyzed. MLs and methods are specified in Attachment A., Part VI. CHEMICAL ANALYSIS. Sampling for any parameter required for WET may be used to satisfy any duplicative sampling required for that parameter in this permit, so long as the timing of sampling for WET coincides with the sample timing otherwise required for that parameter within this permit.
12. If the toxicity test uses receiving water as diluent and the receiving water is found to be toxic or unreliable, the permittee shall follow procedures outlined in Section IV (Dilution Water) of Attachment A in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in Attachment A, EPA-New England has developed a Self-Implementing Alternative Dilution Water Guidance document (called "Guidance Document") which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. This guidance document may be found at: <https://www3.epa.gov/region1/npdes/permits/generic/Alternatedilutionwaterguidance.pdf>. If this Guidance Document is revoked, the permittee shall revert to obtaining approval as outlined in Attachment A. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in Attachment A.

Part I.A. continued.

2. The discharge shall not cause a violation of the water quality standards of the receiving waters.
3. The discharge shall not contain floating, suspended and settleable solids, oil and grease, petrochemicals and other volatile or synthetic organic pollutants.
4. The discharge shall not produce objectionable odor, color, taste, or turbidity.
5. The discharge shall not contain pollutants in concentrations or combinations or cause alterations that impair the existing uses of the receiving water, or interfere with the attainment of designated uses in the receiving water or downstream and adjacent waterbody segments.
6. The discharge shall not contain pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife.
7. The Permittee shall properly operate and maintain the pollution control equipment.
8. The Permittee shall implement preventative maintenance procedures for the pollution control equipment.
9. The Permittee shall implement procedures and maintenance schedule for removal and disposal of solids and/or sludge.
10. The permittee shall not use fungicides or slimicides containing trichlorophenol or pentachlorophenol.
11. Any intake water that is used solely for cooling purposes shall not be directly returned to the receiving water.
12. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 C.F.R. §122.42):
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - i. 100 micrograms per liter ($\mu\text{g/L}$);
 - ii. 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ for 2,4-dinitrophenol; and one milligram per liter (mg/L) for antimony;
 - iii. Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or

- iv. Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f) and Massachusetts regulations.
- b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
- i. 500 µg/L;
 - ii. One mg/L for antimony;
 - iii. 10 times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
 - iv. Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f) and Massachusetts regulations.
13. This permit may be modified in accordance with 40 C.F.R. Section 122.62(a)(3) if the standards or regulations on which the permit is based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit is issued in accordance with 40 C.F.R. Section 122.62(a)(3).

B. SPECIAL CONDITIONS

1. Best Management Practices (BMP) Plan

The permittee shall continue to implement and maintain a Best Management Practices (BMP) Plan designed to reduce or prevent the discharge of pollutants in process water to waters of the United States. The BMP Plan shall be a written document that is consistent with the terms of the permit and identifies and describes the BMPs employed by the facility in operating process water controls.

Within six months following the effective date of the permit, the Permittee shall update and certify that the BMP Plan meets the requirements of this permit, and that it reduces the pollutants discharged in process water to the extent practicable. The BMP Plan and certification shall be signed in accordance with the requirements identified in 40 C.F.R. §122.22. A copy of the BMP Plan and certification shall be maintained at the Permittee’s facility and made available to EPA and MassDEP upon request.

The permittee shall amend and update the BMP Plan **within thirty (30) days** for any changes at the facility affecting the BMP Plan. Such changes may include, but are not limited to, changes in the design, construction, operation, or maintenance of the facility, which have a significant effect on the potential for the discharge of pollutants to the waters of the United States. The amended BMP Plan shall be certified as described above.

The permittee shall certify at least annually that the facility is in compliance with the requirements of the BMP Plan. If the facility is not in compliance with any aspect of the BMP Plan, the annual certification shall state the noncompliance (e.g., a selected BMP is not achieving the control necessary to meet a numeric or non-numeric effluent limitation) and the actions which were undertaken to remedy such noncompliance (e.g., the selection, design and implementation of an alternate BMP). Such annual certifications shall be signed, maintained at the facility, and made available to EPA and MassDEP as described above.

The BMP Plan shall include, at a minimum, the following items:

- a. Selection, design, installation, implementation and maintenance of control measures necessary to meet the effluent limitations in this permit, including the non-numeric limitations and conditions in Part I.A. Any control measures shall be used in accordance with good engineering practices and manufacturer's specifications.
- b. A description of the pollution control equipment and procedures used to minimize the discharge of suspended solids, floating solids, foam/scum/debris, visible oil sheen, and settleable solids to surface waters.
- c. Preventative maintenance procedures for the pollution control equipment.
- d. Procedures for handling facility wastes, including schedules for removal, handling and disposal of materials, a description of where solids removed from the pollution control equipment or appurtenances, including sludge, are stored and/or disposed of, and the control measures used to prevent the removed solids from reentering the receiving water. If facility wastes are removed from the site, describe the destination and the method of disposal and/or reuse.
- e. A record of the following information for all chemicals and additives used at the facility, including all chemicals used in the treatment processes at the facility (flocculation, clarification, filtration, and disinfection), and for control of biological growth, and corrosion and scale in water pipes:
 - i. Product name, chemical formula, and manufacturer of the additive;
 - ii. Purpose or use of the additive;
 - iii. Material Safety Data Sheet (MSDS) and Chemical Abstracts Service (CAS) Registry number for each additive;
 - iv. The frequency (e.g., hourly, daily), duration (e.g., hours, days), quantity (e.g., maximum and average), and method of application for the additive; and
 - v. The vendor's reported aquatic toxicity, when available (NOAEL and/or LC50 in percent for aquatic organism(s)).

- f. A description of the training to be provided for employees to assure they understand the goals, objectives, and procedures of the BMP Plan, the requirements of the NPDES Permit, and their individual responsibilities for complying with the goals and objectives of the BMP Plan and the NPDES permit.
- g. Minimum documentation requirements are as follows:
 - i. Records of operational and preventive maintenance activities, equipment inspections, procedure audits, and personnel training;
 - ii. Records of the collection and analysis of samples, including, but not limited to, sample location, any calculations done at the time of sampling, any sampling or analytical methods used for samples analyzed on site, and sample results; and
 - iii. All documentation of BMP Plan activities shall be kept at the facility and provided to EPA or MassDEP upon request.

2. Treatment Plant Optimization for Nitrogen

The permittee shall complete an evaluation of alternative methods of operating its existing wastewater treatment facility to optimize the removal of nitrogen, and submit a report to EPA and MassDEP documenting this evaluation. This report shall present a description of recommended operational changes within one (1) year of the effective date of the permit. The permittee shall implement the recommended operational changes in order to maintain the existing mass discharge loading of total nitrogen, which will be measured as an annual average. The annual average total nitrogen load from this facility (for the period of March 2011 – March 2016) is estimated to be 67.3 lbs/day. The permittee shall submit an annual report due by January 15th of each year and submitted with the December DMR that summarizes activities related to optimizing the effectiveness of nitrogen removal methods. The report shall also include documentation of the annual nitrogen discharge load from the facility and how that load compares to previous years.

3. Whole Effluent Toxicity (WET) Testing Reduction

The Permittee may request a reduction in Whole Effluent Toxicity testing requirements by submitting results for a minimum of four (4) consecutive tests, all of which must be valid tests that demonstrate compliance with the WET testing requirements in this permit. Until written notice is received from EPA indicating that the WET testing requirements have been changed, the Permittee is required to continue testing as specified in this permit.

4. Compliance Schedule

The Permittee shall have up to three (3) years to comply with the new effluent limits for total copper and seasonal total phosphorus, and the more stringent C-NOEC limit. For the period starting on the effective date of this permit and ending three (3) years after the effective date, the permittee is required to monitor only and report monthly for total copper and total phosphorus for the seasonal period of May through October. After this initial three (3) year period, the permittee shall comply with the monthly average and daily maximum total copper limits of 22 µg/l as well as the seasonal, monthly average total phosphorus limit of 1.26 mg/l. For the chronic-no observed effect concentration (C-NOEC), the limit of $\geq 5\%$ will be in effect for the first three (3) years of the permit. After this three (3) year period, the revised limit of $\geq 7.2\%$ will go into effect.

The permittee shall submit an annual report due by January 15th of each of the first three (3) years of the permit which will detail its progress towards meeting the final permit limits for the parameters listed above. This annual report shall be submitted with the December DMR.

5. Reopener Clause for Total Copper Limit

If within three (3) years of the effective date of the permit, MassDEP has promulgated a site specific copper water quality criterion for the North River, or the Permittee has submitted to MassDEP site specific study data to support a determination of such a site specific copper water quality criterion, the Permittee may request a Permit Modification to extend the compliance period for attaining the effluent limit for total copper beyond the original three (3) year period.

C. REPORTING REQUIREMENTS

The monitoring program in the permit specifies sampling and analysis, which will provide continuous information on compliance and the reliability and effectiveness of the installed pollution abatement equipment. The approved analytical procedures found in 40 C.F.R. Part 136 are required unless other procedures are explicitly required in the permit. The Permittee is obligated to monitor and report sampling results to EPA and the MassDEP within the time frames specified within the permit.

Unless otherwise specified in this permit, the permittee shall submit reports, requests, and information and provide notices in the manner described in this section.

1. Submittal of DMRs Using NetDMR

The permittee shall continue to submit its monthly monitoring data in discharge monitoring reports (DMRs) to EPA and MassDEP no later than the 15th day of the month electronically using NetDMR. When the permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to EPA or MassDEP.

2. Submittal of Reports as NetDMR Attachments

Unless otherwise specified in this permit, the permittee shall electronically submit all reports to EPA as NetDMR attachments rather than as hard copies. Permittees shall continue to send hard copies of reports other than DMRs to MassDEP until further notice from MassDEP. (See Part I.C.5 for more information on state reporting.) Because the due dates for reports described in this permit may not coincide with the due date for submitting DMRs (which is no later than the 15th day of the month), a report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the particular report due date specified in this permit.

3. Submittal of Requests and Reports to EPA/OEP

The following requests, reports, and information described in this permit shall be submitted to the EPA/OEP NPDES Applications Coordinator in the EPA Office Ecosystem Protection (OEP).

- A. Transfer of permit notice
- B. Request for changes in sampling location
- C. Request for reduction in testing frequency
- D. Request for reduction in WET testing requirement
- E. Report on unacceptable dilution water / request for alternative dilution water for WET testing
- F. Notification of proposal to add or replace chemicals additives and bio-remedial agents including microbes
- G. Evaluation of Alternative Methods for Nitrogen Removal Report
- H. Annual Nitrogen Removal Optimization Reports
- I. Annual Compliance Schedule Reports for Copper, Phosphorus, and WET

These reports, information, and requests shall be submitted to EPA/OEP electronically at R1NPDES.Notices.OEP@epa.gov or by hard copy mail to the following address:

**U.S. Environmental Protection Agency
Office of Ecosystem Protection
EPA/OEP NPDES Applications Coordinator
5 Post Office Square - Suite 100 (OEP06-03)
Boston, MA 02109-3912**

4. Submittal of Reports in Hard Copy Form

The following notifications and reports shall be submitted as hard copy with a cover letter describing the submission. These reports shall be signed and dated originals submitted to EPA.

- A. Written notifications required under Part II
- B. Notice of unauthorized discharges

This information shall be submitted to EPA/OES at the following address:

**U.S. Environmental Protection Agency
Office of Environmental Stewardship (OES)
Water Technical Unit
5 Post Office Square, Suite 100 (OES04-SMR)
Boston, MA 02109-3912**

5. State Reporting

Transfer or termination of permit notices shall be submitted to:

**MassDEP
Bureau of Water Resources
Wastewater Management Program
1 Winter Street, 5th Floor
Boston, MA 02108**

Unless otherwise specified in this permit, duplicate signed copies of all reports, information, requests or notifications described in this permit, including the reports, information, requests or notifications described in Parts I.C.3 and I.C.4 shall also be submitted to the State at the following addresses:

**MassDEP – Western Region
Bureau of Water Resources
436 Dwight Street, Suite 402
Springfield, MA 01103**

Except that, copies of toxicity tests and annual nitrogen optimization reports shall be submitted to:

**Massachusetts Department of Environmental Protection
Watershed Planning Program
8 New Bond Street
Worcester, Massachusetts 01606**

6. Verbal Reports and Verbal Notifications

Any verbal reports or verbal notifications, if required in Parts I and/or II of this permit, shall be made to both EPA and to MassDEP. This includes verbal reports and notifications which require reporting within 24 hours. (As examples, see Part II.B.4.c. (2), Part II.B.5.c. (3), and Part II.D.1.e.) Verbal reports and verbal notifications shall be made to EPA's Office of Environmental Stewardship at: **617-918-1510**

D. STATE PERMIT CONDITIONS

1. This authorization to discharge includes two separate and independent permit authorizations. The two permit authorizations are (i) a federal National Pollutant Discharge Elimination System permit issued by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal Clean Water Act, 33 U.S.C. §§1251 et seq.; and (ii) an identical state surface water discharge permit issued by the Commissioner of the Massachusetts Department of Environmental Protection (MassDEP) pursuant to the Massachusetts Clean Waters Act, M.G.L. c. 21, §§26-53, and 314 C.M.R. 3.00. All of the requirements contained in this authorization, as well as the standard conditions contained in 314 C.M.R. 3.19, are hereby incorporated by reference into this state surface water discharge permit.
2. This authorization also incorporates the state water quality certification issued by MassDEP under §401(a) of the Federal Clean Water Act, 40 CFR 124.53, M.G.L. c. 21, §27 and 314 CMR 3.07. All of the requirements (if any) contained in MassDEP's water quality certification for the permit are hereby incorporated by reference into this state surface water discharge permit as special conditions pursuant to 314 CMR 3.11.
3. Each Agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of Federal law, this permit shall remain in full force and effect under State law as a permit issued by the Commonwealth of Massachusetts.

FRESHWATER CHRONIC TOXICITY TEST PROCEDURE AND PROTOCOL USEPA Region 1

I. GENERAL REQUIREMENTS

The permittee shall be responsible for the conduct of acceptable chronic toxicity tests using three fresh samples collected during each test period. The following tests shall be performed as prescribed in Part 1 of the NPDES discharge permit in accordance with the appropriate test protocols described below. (Note: the permittee and testing laboratory should review the applicable permit to determine whether testing of one or both species is required).

- **Daphnid (Ceriodaphnia dubia) Survival and Reproduction Test.**
- **Fathead Minnow (Pimephales promelas) Larval Growth and Survival Test.**

Chronic toxicity data shall be reported as outlined in Section VIII.

II. METHODS

Methods to follow are those recommended by EPA in: Short Term Methods For Estimating The Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms, Fourth Edition, October 2002. United States Environmental Protection Agency. Office of Water, Washington, D.C., EPA 821-R-02-013. The methods are available on-line at <http://www.epa.gov/waterscience/WET/> . Exceptions and clarification are stated herein.

III. SAMPLE COLLECTION AND USE

A total of three fresh samples of effluent and receiving water are required for initiation and subsequent renewals of a freshwater, chronic, toxicity test. The receiving water control sample must be collected immediately upstream of the permitted discharge's zone of influence. Fresh samples are recommended for use on test days 1, 3, and 5. However, provided a total of three samples are used for testing over the test period, an alternate sampling schedule is acceptable. The acceptable holding times until initial use of a sample are 24 and 36 hours for on-site and off-site testing, respectively. A written waiver is required from the regulating authority for any hold time extension. All test samples collected may be used for 24, 48 and 72 hour renewals after initial use. All samples held for use beyond the day of sampling shall be refrigerated and maintained at a temperature range of 0-6° C.

All samples submitted for chemical and physical analyses will be analyzed according to Section VI of this protocol.

Sampling guidance dictates that, where appropriate, aliquots for the analysis required in this protocol shall be split from the samples, containerized and immediately preserved, or analyzed as per 40 CFR Part 136. EPA approved test methods require that samples collected for metals analyses be preserved immediately after collection. Testing for the presence of total residual chlorine (TRC) must be analyzed immediately or as soon as possible, for all effluent samples, prior to WET testing. TRC analysis may be performed on-site or by the toxicity testing laboratory and the samples must be dechlorinated, as necessary, using sodium thiosulfate prior to sample use for toxicity testing.

If any of the renewal samples are of sufficient potency to cause lethality to 50 percent or more of the test organisms in any of the test treatments for either species or, if the test fails to meet its permit limits, then chemical analysis for total metals (originally required for the initial sample only in Section VI) will be required on the renewal sample(s) as well.

IV. DILUTION WATER

Samples of receiving water must be collected from a location in the receiving water body immediately upstream of the permitted discharge's zone of influence at a reasonably accessible location. Avoid collection near areas of obvious road or agricultural runoff, storm sewers or other point source discharges and areas where stagnant conditions exist. EPA strongly urges that screening for toxicity be performed prior to the set up of a full, definitive toxicity test any time there is a question about the test dilution water's ability to achieve test acceptability criteria (TAC) as indicated in Section V of this protocol. The test dilution water control response will be used in the statistical analysis of the toxicity test data. All other control(s) required to be run in the test will be reported as specified in the Discharge Monitoring Report (DMR) Instructions, Attachment F, page 2, Test Results & Permit Limits.

The test dilution water must be used to determine whether the test met the applicable TAC. When receiving water is used for test dilution, an additional control made up of standard laboratory water (0% effluent) is required. This control will be used to verify the health of the test organisms and evaluate to what extent, if any, the receiving water itself is responsible for any toxic response observed.

If dechlorination of a sample by the toxicity testing laboratory is necessary a "sodium thiosulfate" control, representing the concentration of sodium thiosulfate used to adequately dechlorinate the sample prior to toxicity testing, must be included in the test.

If the use of an alternate dilution water (ADW) is authorized, in addition to the ADW test control, the testing laboratory must, for the purpose of monitoring the receiving water, also run a receiving water control.

If the receiving water diluent is found to be, or suspected to be toxic or unreliable an ADW of known quality with hardness similar to that of the receiving water may be substituted. Substitution is species specific meaning that the decision to use ADW is made for each species and is based on the toxic response of that particular species. Substitution to an ADW is authorized in two cases. The first is the case where repeating a test due to toxicity in the site dilution water requires an **immediate decision** for ADW use be made by the permittee and toxicity testing laboratory. The second is in the case where two of the most recent documented incidents of unacceptable site dilution water toxicity requires ADW use in future WET testing.

For the second case, written notification from the permittee requesting ADW use **and** written authorization from the permit issuing agency(s) is required **prior to** switching to a long-term use of ADW for the duration of the permit.

Written requests for use of ADW must be mailed with supporting documentation to the following addresses:

Director
Office of Ecosystem Protection (CAA)
U.S. Environmental Protection Agency, Region 1
Five Post Office Square, Suite 100
Mail Code OEP06-5
Boston, MA 02109-3912

and

Manager
Water Technical Unit (SEW)
U.S. Environmental Protection Agency
Five Post Office Square, Suite 100
Mail Code OES04-4
Boston, MA 02109-3912

Note: USEPA Region 1 retains the right to modify any part of the alternate dilution water policy stated in this protocol at any time. Any changes to this policy will be documented in the annual DMR posting.

See the most current annual DMR instructions which can be found on the EPA Region 1 website at <http://www.epa.gov/region1/enforcementandassistance/dmr.html> for further important details on alternate dilution water substitution requests.

V. TEST CONDITIONS AND TEST ACCEPTABILITY CRITERIA

Method specific test conditions and TAC are to be followed and adhered to as specified in the method guidance document, EPA 821-R-02-013. If a test does not meet TAC the test must be repeated with fresh samples within 30 days of the initial test completion date.

V.1. Use of Reference Toxicity Testing

Reference toxicity test results and applicable control charts must be included in the toxicity testing report.

If reference toxicity test results fall outside the control limits established by the laboratory for a specific test endpoint, a reason or reasons for this excursion must be evaluated, correction made and reference toxicity tests rerun as necessary.

If a test endpoint value exceeds the control limits at a frequency of more than one out of twenty then causes for the reference toxicity test failure must be examined and if problems are identified corrective action taken. The reference toxicity test must be repeated during the same month in which the exceedance occurred.

If two consecutive reference toxicity tests fall outside control limits, the possible cause(s) for the exceedance must be examined, corrective actions taken and a repeat of the reference toxicity test must take place immediately. Actions taken to resolve the problem must be reported.

V.1.a. Use of Concurrent Reference Toxicity Testing

In the case where concurrent reference toxicity testing is required due to a low frequency of testing with a particular method, if the reference toxicity test results fall slightly outside of laboratory established control limits, but the primary test met the TAC, the results of the primary test will be considered acceptable. However, if the results of the concurrent test fall well outside the established **upper** control limits i.e. ≥ 3 standard deviations for IC25 values and \geq two concentration intervals for NOECs, and even though the primary test meets TAC, the primary test will be considered unacceptable and must be repeated.

V.2. For the *C. dubia* test, the determination of TAC and formal statistical analyses must be performed using only the first three broods produced.

V.3. Test treatments must include 5 effluent concentrations and a dilution water control. An additional test treatment, at the permitted effluent concentration (% effluent), is required if it is not included in the dilution series.

VI. CHEMICAL ANALYSIS

As part of each toxicity test's daily renewal procedure, pH, specific conductance, dissolved oxygen (DO) and temperature must be measured at the beginning and end of each 24-hour period in each test treatment and the control(s).

The additional analysis that must be performed under this protocol is as specified and noted in the table below.

<u>Parameter</u>	Effluent	Receiving Water	ML (mg/l)
Hardness ^{1, 4}	x	x	0.5
Total Residual Chlorine (TRC) ^{2, 3, 4}	x		0.02
Alkalinity ⁴	x	x	2.0
pH ⁴	x	x	--
Specific Conductance ⁴	x	x	--
Total Solids ⁶	x		--
Total Dissolved Solids ⁶	x		--
Ammonia ⁴	x	x	0.1
Total Organic Carbon ⁶	x	x	0.5
Total Metals ⁵			
Cd	x	x	0.0005
Pb	x	x	0.0005
Cu	x	x	0.003
Zn	x	x	0.005
Ni	x	x	0.005
Al	x	x	0.02

Other as permit requires

Notes:

1. Hardness may be determined by:

- APHA Standard Methods for the Examination of Water and Wastewater , 21st Edition
 - Method 2340B (hardness by calculation)
 - Method 2340C (titration)
2. Total Residual Chlorine may be performed using any of the following methods provided the required minimum limit (ML) is met.
 - APHA Standard Methods for the Examination of Water and Wastewater , 21st Edition
 - Method 4500-CL E Low Level Amperometric Titration
 - Method 4500-CL G DPD Colorimetric Method
 - USEPA 1983. Manual of Methods Analysis of Water and Wastes
 - Method 330.5
 3. Required to be performed on the sample used for WET testing prior to its use for toxicity testing
 4. Analysis is to be performed on samples and/or receiving water, as designated in the table above, from all three sampling events.
 5. Analysis is to be performed on the initial sample(s) only unless the situation arises as stated in Section III, paragraph 4
 6. Analysis to be performed on initial samples only

VII. TOXICITY TEST DATA ANALYSIS AND REVIEW

A. Test Review

1. Concentration / Response Relationship

A concentration/response relationship evaluation is required for test endpoint determinations from both Hypothesis Testing and Point Estimate techniques. The test report is to include documentation of this evaluation in support of the endpoint values reported. The dose-response review must be performed as required in Section 10.2.6 of EPA-821-R-02-013.

Guidance for this review can be found at

<http://water.epa.gov/scitech/methods/cwa/> . In most cases, the review will result in one of the following three conclusions: (1) Results are reliable and reportable; (2) Results are anomalous and require explanation; or (3) Results are inconclusive and a retest with fresh samples is required.

2. Test Variability (Test Sensitivity)

This review step is separate from the determination of whether a test meets or does not meet TAC. Within test variability is to be examined for the purpose of evaluating test sensitivity. This evaluation is to be performed for the sub-lethal hypothesis testing endpoints reproduction and growth as required by the permit. The test report is to include documentation of this evaluation to support that the endpoint values reported resulted from a toxicity test of adequate sensitivity. This evaluation must be performed as required in Section 10.2.8 of EPA-821-R-02-013.

To determine the adequacy of test sensitivity, USEPA requires the calculation of test percent minimum significant difference (PMSD) values. In cases where NOEC determinations are made based on a non-parametric technique, calculation of a test PMSD value, for the sole purpose of assessing test sensitivity, shall be calculated using a comparable parametric statistical analysis technique. The calculated test PMSD is then compared to the upper and lower PMSD bounds shown for freshwater tests in Section 10.2.8.3, p. 52, Table 6 of EPA-821-R-02-013. The comparison will yield one of the following determinations.

- The test PMSD exceeds the PMSD upper bound test variability criterion in Table 6, the test results are considered highly variable and the test may not be sensitive enough to determine the presence of toxicity at the permit limit concentration (PLC). If the test results indicate that the discharge is not toxic at the PLC, then the test is considered insufficiently sensitive and must be repeated within 30 days of the initial test completion using fresh samples. If the test results indicate that the discharge is toxic at the PLC, the test is considered acceptable and does not have to be repeated.
- The test PMSD falls below the PMSD lower bound test variability criterion in Table 6, the test is determined to be very sensitive. In order to determine which treatment(s) are statistically significant and which are not, for the purpose of reporting a NOEC, the relative percent difference (RPD) between the control and each treatment must be calculated and compared to the lower PMSD boundary. See *Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the NPDES Program*, EPA 833-R-00-003, June 2002, Section 6.4.2. The following link: [Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the NPDES Program](#) can be used to locate the USEPA website containing this document. If the RPD for a treatment falls below the PMSD lower bound, the difference is considered statistically insignificant. If the RPD for a treatment is greater than the PMSD lower bound, then the treatment is considered statistically significant.
- The test PMSD falls within the PMSD upper and lower bounds in Table 6, the sub-lethal test endpoint values shall be reported as is.

B. Statistical Analysis

1. General - Recommended Statistical Analysis Method

Refer to general data analysis flowchart, EPA 821-R-02-013, page 43

For discussion on Hypothesis Testing, refer to EPA 821-R-02-013, Section 9.6

For discussion on Point Estimation Techniques, refer to EPA 821-R-02-013, Section 9.7

2. *Pimephales promelas*

Refer to survival hypothesis testing analysis flowchart, EPA 821-R-02-013, page 79

Refer to survival point estimate techniques flowchart, EPA 821-R-02-013, page 80

Refer to growth data statistical analysis flowchart, EPA 821-R-02-013, page 92

3. *Ceriodaphnia dubia*

Refer to survival data testing flowchart, EPA 821-R-02-013, page 168

Refer to reproduction data testing flowchart, EPA 821-R-02-013, page 173

VIII. TOXICITY TEST REPORTING

A report of results must include the following:

- Test summary sheets (2007 DMR Attachment F) which includes:
 - Facility name
 - NPDES permit number
 - Outfall number
 - Sample type
 - Sampling method
 - Effluent TRC concentration
 - Dilution water used
 - Receiving water name and sampling location
 - Test type and species
 - Test start date
 - Effluent concentrations tested (%) and permit limit concentration
 - Applicable reference toxicity test date and whether acceptable or not
 - Age, age range and source of test organisms used for testing
 - Results of TAC review for all applicable controls
 - Test sensitivity evaluation results (test PMSD for growth and reproduction)
 - Permit limit and toxicity test results
 - Summary of test sensitivity and concentration response evaluation

In addition to the summary sheets the report must include:

- A brief description of sample collection procedures
- Chain of custody documentation including names of individuals collecting samples, times and dates of sample collection, sample locations, requested analysis and lab receipt with time and date received, lab receipt personnel and condition of samples upon receipt at the lab(s)
- Reference toxicity test control charts
- All sample chemical/physical data generated, including minimum limits (MLs) and analytical methods used
- All toxicity test raw data including daily ambient test conditions, toxicity test chemistry, sample dechlorination details as necessary, bench sheets and statistical analysis
- A discussion of any deviations from test conditions
- Any further discussion of reported test results, statistical analysis and concentration-response relationship and test sensitivity review per species per endpoint

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PART II. A. GENERAL REQUIREMENTS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

- a. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.
- b. The CWA provides that any person who violates Section 301, 302, 306, 307, 308, 318, or 405 of the CWA or any permit condition or limitation implementing any of such sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Section 402 (a)(3) or 402 (b)(8) of the CWA is subject to a civil penalty not to exceed \$25,000 per day for each violation. Any person who negligently violates such requirements is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. Any person who knowingly violates such requirements is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both.
- c. Any person may be assessed an administrative penalty by the Administrator for violating Section 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the CWA. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

Note: See 40 CFR §122.41(a)(2) for complete “Duty to Comply” regulations.

2. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or notifications of planned changes or anticipated noncompliance does not stay any permit condition.

3. Duty to Provide Information

The permittee shall furnish to the Regional Administrator, within a reasonable time, any information which the Regional Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Regional Administrator, upon request, copies of records required to be kept by this permit.

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4. Reopener Clause

The Regional Administrator reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA in order to bring all discharges into compliance with the CWA.

For any permit issued to a treatment works treating domestic sewage (including “sludge-only facilities”), the Regional Administrator or Director shall include a reopener clause to incorporate any applicable standard for sewage sludge use or disposal promulgated under Section 405 (d) of the CWA. The Regional Administrator or Director may promptly modify or revoke and reissue any permit containing the reopener clause required by this paragraph if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or contains a pollutant or practice not limited in the permit.

Federal regulations pertaining to permit modification, revocation and reissuance, and termination are found at 40 CFR §122.62, 122.63, 122.64, and 124.5.

5. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the CWA, or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

6. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges.

7. Confidentiality of Information

- a. In accordance with 40 CFR Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words “confidential business information” on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information).
- b. Claims of confidentiality for the following information will be denied:
 - (1) The name and address of any permit applicant or permittee;
 - (2) Permit applications, permits, and effluent data as defined in 40 CFR §2.302(a)(2).
- c. Information required by NPDES application forms provided by the Regional Administrator under 40 CFR §122.21 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

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8. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Regional Administrator. (The Regional Administrator shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

9. State Authorities

Nothing in Part 122, 123, or 124 precludes more stringent State regulation of any activity covered by these regulations, whether or not under an approved State program.

10. Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, or local laws and regulations.

PART II. B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of storm water pollution prevention plans. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

4. Bypass

a. Definitions

- (1) *Bypass* means the intentional diversion of waste streams from any portion of a treatment facility.

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- (2) *Severe property damage* means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can be reasonably expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Paragraphs B.4.c. and 4.d. of this section.

c. Notice

- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D.1.e. of this part (Twenty-four hour reporting).

d. Prohibition of bypass

Bypass is prohibited, and the Regional Administrator may take enforcement action against a permittee for bypass, unless:

- (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
- (3)
 - i) The permittee submitted notices as required under Paragraph 4.c. of this section.
 - ii) The Regional Administrator may approve an anticipated bypass, after considering its adverse effects, if the Regional Administrator determines that it will meet the three conditions listed above in paragraph 4.d. of this section.

5. Upset

- a. Definition. *Upset* means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph B.5.c. of this section are met. No determination made during

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administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in paragraphs D.1.a. and 1.e. (Twenty-four hour notice); and
 - (4) The permittee complied with any remedial measures required under B.3. above.
- d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

PART II. C. MONITORING REQUIREMENTS

1. Monitoring and Records

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. Except for records for monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application except for the information concerning storm water discharges which must be retained for a total of 6 years. This retention period may be extended by request of the Regional Administrator at any time.
- c. Records of monitoring information shall include:
 - (1) The date, exact place, and time of sampling or measurements;
 - (2) The individual(s) who performed the sampling or measurements;
 - (3) The date(s) analyses were performed;
 - (4) The individual(s) who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses.
- d. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in the permit.
- e. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by

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imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

2. Inspection and Entry

The permittee shall allow the Regional Administrator or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.

PART II. D. REPORTING REQUIREMENTS

1. Reporting Requirements

- a. **Planned Changes.** The permittee shall give notice to the Regional Administrator as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is only required when:
 - (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR§122.29(b); or
 - (2) The alteration or addition could significantly change the nature or increase the quantities of the pollutants discharged. This notification applies to pollutants which are subject neither to the effluent limitations in the permit, nor to the notification requirements at 40 CFR§122.42(a)(1).
 - (3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition or change may justify the application of permit conditions different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. **Anticipated noncompliance.** The permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- c. **Transfers.** This permit is not transferable to any person except after notice to the Regional Administrator. The Regional Administrator may require modification or revocation and reissuance of the permit to change the name of the permittee and

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incorporate such other requirements as may be necessary under the CWA. (See 40 CFR Part 122.61; in some cases, modification or revocation and reissuance is mandatory.)

- d. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- (1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.
 - (2) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of the monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.
 - (3) Calculations for all limitations which require averaging or measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.
- e. Twenty-four hour reporting.
- (1) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances.

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - (2) The following shall be included as information which must be reported within 24 hours under this paragraph.
 - (a) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR §122.41(g).)
 - (b) Any upset which exceeds any effluent limitation in the permit.
 - (c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Regional Administrator in the permit to be reported within 24 hours. (See 40 CFR §122.44(g).)
 - (3) The Regional Administrator may waive the written report on a case-by-case basis for reports under Paragraph D.1.e. if the oral report has been received within 24 hours.

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- f. Compliance Schedules. Reports of compliance or noncompliance with, any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
 - g. Other noncompliance. The permittee shall report all instances of noncompliance not reported under Paragraphs D.1.d., D.1.e., and D.1.f. of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph D.1.e. of this section.
 - h. Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Administrator, it shall promptly submit such facts or information.
2. Signatory Requirement
- a. All applications, reports, or information submitted to the Regional Administrator shall be signed and certified. (See 40 CFR §122.22)
 - b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.
3. Availability of Reports.

Except for data determined to be confidential under Paragraph A.8. above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Regional Administrator. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA.

PART II. E. DEFINITIONS AND ABBREVIATIONS

1. Definitions for Individual NPDES Permits including Storm Water Requirements

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Applicable standards and limitations means all, State, interstate, and Federal standards and limitations to which a “discharge”, a “sewage sludge use or disposal practice”, or a related activity is subject to, including “effluent limitations”, water quality standards, standards of performance, toxic effluent standards or prohibitions, “best management practices”, pretreatment standards, and “standards for sewage sludge use and disposal” under Sections 301, 302, 303, 304, 306, 307, 308, 403, and 405 of the CWA.

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Application means the EPA standard national forms for applying for a permit, including any additions, revisions, or modifications to the forms; or forms approved by EPA for use in “approved States”, including any approved modifications or revisions.

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For total and/or fecal coliforms and Escherichia coli, the average shall be the geometric mean.

Average monthly discharge limitation means the highest allowable average of “daily discharges” over a calendar month calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month.

Average weekly discharge limitation means the highest allowable average of “daily discharges” measured during the calendar week divided by the number of “daily discharges” measured during the week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of “waters of the United States.” BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Best Professional Judgment (BPJ) means a case-by-case determination of Best Practicable Treatment (BPT), Best Available Treatment (BAT), or other appropriate technology-based standard based on an evaluation of the available technology to achieve a particular pollutant reduction and other factors set forth in 40 CFR §125.3 (d).

Coal Pile Runoff means the rainfall runoff from or through any coal storage pile.

Composite Sample means a sample consisting of a minimum of eight grab samples of equal volume collected at equal intervals during a 24-hour period (or lesser period as specified in the section on Monitoring and Reporting) and combined proportional to flow, or a sample consisting of the same number of grab samples, or greater, collected proportionally to flow over that same time period.

Construction Activities - The following definitions apply to construction activities:

- (a) Commencement of Construction is the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.
- (b) Dedicated portable asphalt plant is a portable asphalt plant located on or contiguous to a construction site and that provides asphalt only to the construction site that the plant is located on or adjacent to. The term dedicated portable asphalt plant does not include facilities that are subject to the asphalt emulsion effluent limitation guideline at 40 CFR Part 443.
- (c) Dedicated portable concrete plant is a portable concrete plant located on or contiguous to a construction site and that provides concrete only to the construction site that the plant is located on or adjacent to.

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- (d) Final Stabilization means that all soil disturbing activities at the site have been complete, and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.
- (e) Runoff coefficient means the fraction of total rainfall that will appear at the conveyance as runoff.

Contiguous zone means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

Continuous discharge means a “discharge” which occurs without interruption throughout the operating hours of the facility except for infrequent shutdowns for maintenance, process changes, or similar activities.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, and Pub. L. 97-117; 33 USC §§1251 et seq.

Daily Discharge means the discharge of a pollutant measured during the calendar day or any other 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the “daily discharge” is calculated as the average measurement of the pollutant over the day.

Director normally means the person authorized to sign NPDES permits by EPA or the State or an authorized representative. Conversely, it also could mean the Regional Administrator or the State Director as the context requires.

Discharge Monitoring Report Form (DMR) means the EPA standard national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by “approved States” as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA’s.

Discharge of a pollutant means:

- (a) Any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source”, or
- (b) Any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation (See “Point Source” definition).

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead

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to a treatment works; and discharges through pipes, sewers, or other conveyances leading into privately owned treatment works.

This term does not include an addition of pollutants by any “indirect discharger.”

Effluent limitation means any restriction imposed by the Regional Administrator on quantities, discharge rates, and concentrations of “pollutants” which are “discharged” from “point sources” into “waters of the United States”, the waters of the “contiguous zone”, or the ocean.

Effluent limitation guidelines means a regulation published by the Administrator under Section 304(b) of CWA to adopt or revise “effluent limitations”.

EPA means the United States “Environmental Protection Agency”.

Flow-weighted composite sample means a composite sample consisting of a mixture of aliquots where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab Sample – An individual sample collected in a period of less than 15 minutes.

Hazardous Substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the CWA.

Indirect Discharger means a non-domestic discharger introducing pollutants to a publicly owned treatment works.

Interference means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- (a) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- (b) Therefore is a cause of a violation of any requirement of the POTW’s NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act (CWA), the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resources Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SDWA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection Research and Sanctuaries Act.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.

Land application unit means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.

Large and Medium municipal separate storm sewer system means all municipal separate storm sewers that are either: (i) located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and 40 CFR Part 122); or (ii) located in the counties with unincorporated urbanized

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populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships, or towns within such counties (these counties are listed in Appendices H and I of 40 CFR 122); or (iii) owned or operated by a municipality other than those described in Paragraph (i) or (ii) and that are designated by the Regional Administrator as part of the large or medium municipal separate storm sewer system.

Maximum daily discharge limitation means the highest allowable “daily discharge” concentration that occurs only during a normal day (24-hour duration).

Maximum daily discharge limitation (as defined for the Steam Electric Power Plants only) when applied to Total Residual Chlorine (TRC) or Total Residual Oxidant (TRO) is defined as “maximum concentration” or “Instantaneous Maximum Concentration” during the two hours of a chlorination cycle (or fraction thereof) prescribed in the Steam Electric Guidelines, 40 CFR Part 423. These three synonymous terms all mean “a value that shall not be exceeded” during the two-hour chlorination cycle. This interpretation differs from the specified NPDES Permit requirement, 40 CFR § 122.2, where the two terms of “Maximum Daily Discharge” and “Average Daily Discharge” concentrations are specifically limited to the daily (24-hour duration) values.

Municipality means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribe organization, or a designated and approved management agency under Section 208 of the CWA.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the CWA. The term includes an “approved program”.

New Discharger means any building, structure, facility, or installation:

- (a) From which there is or may be a “discharge of pollutants”;
- (b) That did not commence the “discharge of pollutants” at a particular “site” prior to August 13, 1979;
- (c) Which is not a “new source”; and
- (d) Which has never received a finally effective NPDES permit for discharges at that “site”.

This definition includes an “indirect discharger” which commences discharging into “waters of the United States” after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a “site” for which it does not have a permit; and any offshore rig or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a “site” under EPA’s permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Regional Administrator in the issuance of a final permit to be in an area of biological concern. In determining whether an area is an area of biological concern, the Regional Administrator shall consider the factors specified in 40 CFR §§125.122 (a) (1) through (10).

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An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a “new discharger” only for the duration of its discharge in an area of biological concern.

New source means any building, structure, facility, or installation from which there is or may be a “discharge of pollutants”, the construction of which commenced:

- (a) After promulgation of standards of performance under Section 306 of CWA which are applicable to such source, or
- (b) After proposal of standards of performance in accordance with Section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal.

NPDES means “National Pollutant Discharge Elimination System”.

Owner or operator means the owner or operator of any “facility or activity” subject to regulation under the NPDES programs.

Pass through means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW’s NPDES permit (including an increase in the magnitude or duration of a violation).

Permit means an authorization, license, or equivalent control document issued by EPA or an “approved” State.

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to any pipe ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff (see 40 CFR §122.2).

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. §§2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

- (a) Sewage from vessels; or
- (b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes is approved by the authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

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Primary industry category means any industry category listed in the NRDC settlement agreement (Natural Resources Defense Council et al. v. Train, 8 E.R.C. 2120 (D.D.C. 1976), modified 12 E.R.C. 1833 (D. D.C. 1979)); also listed in Appendix A of 40 CFR Part 122.

Privately owned treatment works means any device or system which is (a) used to treat wastes from any facility whose operation is not the operator of the treatment works or (b) not a "POTW".

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly Owned Treatment Works (POTW) means any facility or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a "State" or "municipality".

This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Regional Administrator means the Regional Administrator, EPA, Region I, Boston, Massachusetts.

Secondary Industry Category means any industry which is not a "primary industry category".

Section 313 water priority chemical means a chemical or chemical category which:

- (1) is listed at 40 CFR §372.65 pursuant to Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986);
- (2) is present at or above threshold levels at a facility subject to EPCRA Section 313 reporting requirements; and
- (3) satisfies at least one of the following criteria:
 - (i) are listed in Appendix D of 40 CFR Part 122 on either Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols), or Table V (certain toxic pollutants and hazardous substances);
 - (ii) are listed as a hazardous substance pursuant to Section 311(b)(2)(A) of the CWA at 40 CFR §116.4; or
 - (iii) are pollutants for which EPA has published acute or chronic water quality criteria.

Septage means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

Sewage Sludge means any solid, semisolid, or liquid residue removed during the treatment of municipal wastewater or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced wastewater treatment, scum, septage, portable toilet pumpings, Type III Marine Sanitation Device pumpings (33 CFR Part 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

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Sewage sludge use or disposal practice means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of sewage sludge.

Significant materials includes, but is not limited to: raw materials, fuels, materials such as solvents, detergents, and plastic pellets, raw materials used in food processing or production, hazardous substance designated under section 101(14) of CERCLA, any chemical the facility is required to report pursuant to EPCRA Section 313, fertilizers, pesticides, and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

Significant spills includes, but is not limited to, releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the CWA (see 40 CFR §110.10 and §117.21) or Section 102 of CERCLA (see 40 CFR § 302.4).

Sludge-only facility means any “treatment works treating domestic sewage” whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to Section 405(d) of the CWA, and is required to obtain a permit under 40 CFR §122.1(b)(3).

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Trust Territory of the Pacific Islands.

Storm Water means storm water runoff, snow melt runoff, and surface runoff and drainage.

Storm water discharge associated with industrial activity means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. (See 40 CFR §122.26 (b)(14) for specifics of this definition.

Time-weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.

Toxic pollutants means any pollutant listed as toxic under Section 307 (a)(1) or, in the case of “sludge use or disposal practices” any pollutant identified in regulations implementing Section 405(d) of the CWA.

Treatment works treating domestic sewage means a POTW or any other sewage sludge or wastewater treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices.

For purposes of this definition, “domestic sewage” includes waste and wastewater from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under Section 405(f) of the CWA, the Regional Administrator may designate any person subject to the standards for sewage sludge use and disposal in 40 CFR Part 503 as a “treatment works treating domestic sewage”, where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 CFR Part 503.

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Waste Pile means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

Waters of the United States means:

- (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of tide;
- (b) All interstate waters, including interstate “wetlands”;
- (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands”, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - (1) Which are or could be used by interstate or foreign travelers for recreational or other purpose;
 - (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - (3) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) Tributaries of waters identified in Paragraphs (a) through (d) of this definition;
- (f) The territorial sea; and
- (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in Paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 CFR §423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole Effluent Toxicity (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test. (See Abbreviations Section, following, for additional information.)

2. Definitions for NPDES Permit Sludge Use and Disposal Requirements.

Active sewage sludge unit is a sewage sludge unit that has not closed.

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Aerobic Digestion is the biochemical decomposition of organic matter in sewage sludge into carbon dioxide and water by microorganisms in the presence of air.

Agricultural Land is land on which a food crop, a feed crop, or a fiber crop is grown. This includes range land and land used as pasture.

Agronomic rate is the whole sludge application rate (dry weight basis) designed:

- (1) To provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land; and
- (2) To minimize the amount of nitrogen in the sewage sludge that passes below the root zone of the crop or vegetation grown on the land to the ground water.

Air pollution control device is one or more processes used to treat the exit gas from a sewage sludge incinerator stack.

Anaerobic digestion is the biochemical decomposition of organic matter in sewage sludge into methane gas and carbon dioxide by microorganisms in the absence of air.

Annual pollutant loading rate is the maximum amount of a pollutant that can be applied to a unit area of land during a 365 day period.

Annual whole sludge application rate is the maximum amount of sewage sludge (dry weight basis) that can be applied to a unit area of land during a 365 day period.

Apply sewage sludge or sewage sludge applied to the land means land application of sewage sludge.

Aquifer is a geologic formation, group of geologic formations, or a portion of a geologic formation capable of yielding ground water to wells or springs.

Auxiliary fuel is fuel used to augment the fuel value of sewage sludge. This includes, but is not limited to, natural gas, fuel oil, coal, gas generated during anaerobic digestion of sewage sludge, and municipal solid waste (not to exceed 30 percent of the dry weight of the sewage sludge and auxiliary fuel together). Hazardous wastes are not auxiliary fuel.

Base flood is a flood that has a one percent chance of occurring in any given year (i.e. a flood with a magnitude equaled once in 100 years).

Bulk sewage sludge is sewage sludge that is not sold or given away in a bag or other container for application to the land.

Contaminate an aquifer means to introduce a substance that causes the maximum contaminant level for nitrate in 40 CFR §141.11 to be exceeded in ground water or that causes the existing concentration of nitrate in the ground water to increase when the existing concentration of nitrate in the ground water exceeds the maximum contaminant level for nitrate in 40 CFR §141.11.

Class I sludge management facility is any publicly owned treatment works (POTW), as defined in 40 CFR §501.2, required to have an approved pretreatment program under 40 CFR §403.8 (a) (including any POTW located in a state that has elected to assume local program responsibilities pursuant to 40 CFR §403.10 (e) and any treatment works treating domestic sewage, as defined in 40 CFR § 122.2,

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classified as a Class I sludge management facility by the EPA Regional Administrator, or, in the case of approved state programs, the Regional Administrator in conjunction with the State Director, because of the potential for sewage sludge use or disposal practice to affect public health and the environment adversely.

Control efficiency is the mass of a pollutant in the sewage sludge fed to an incinerator minus the mass of that pollutant in the exit gas from the incinerator stack divided by the mass of the pollutant in the sewage sludge fed to the incinerator.

Cover is soil or other material used to cover sewage sludge placed on an active sewage sludge unit.

Cover crop is a small grain crop, such as oats, wheat, or barley, not grown for harvest.

Cumulative pollutant loading rate is the maximum amount of inorganic pollutant that can be applied to an area of land.

Density of microorganisms is the number of microorganisms per unit mass of total solids (dry weight) in the sewage sludge.

Dispersion factor is the ratio of the increase in the ground level ambient air concentration for a pollutant at or beyond the property line of the site where the sewage sludge incinerator is located to the mass emission rate for the pollutant from the incinerator stack.

Displacement is the relative movement of any two sides of a fault measured in any direction.

Domestic septage is either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

Domestic sewage is waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

Dry weight basis means calculated on the basis of having been dried at 105 degrees Celsius (°C) until reaching a constant mass (i.e. essentially 100 percent solids content).

Fault is a fracture or zone of fractures in any materials along which strata on one side are displaced with respect to the strata on the other side.

Feed crops are crops produced primarily for consumption by animals.

Fiber crops are crops such as flax and cotton.

Final cover is the last layer of soil or other material placed on a sewage sludge unit at closure.

Fluidized bed incinerator is an enclosed device in which organic matter and inorganic matter in sewage sludge are combusted in a bed of particles suspended in the combustion chamber gas.

Food crops are crops consumed by humans. These include, but are not limited to, fruits, vegetables, and tobacco.

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Forest is a tract of land thick with trees and underbrush.

Ground water is water below the land surface in the saturated zone.

Holocene time is the most recent epoch of the Quaternary period, extending from the end of the Pleistocene epoch to the present.

Hourly average is the arithmetic mean of all the measurements taken during an hour. At least two measurements must be taken during the hour.

Incineration is the combustion of organic matter and inorganic matter in sewage sludge by high temperatures in an enclosed device.

Industrial wastewater is wastewater generated in a commercial or industrial process.

Land application is the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

Land with a high potential for public exposure is land that the public uses frequently. This includes, but is not limited to, a public contact site and reclamation site located in a populated area (e.g., a construction site located in a city).

Land with low potential for public exposure is land that the public uses infrequently. This includes, but is not limited to, agricultural land, forest and a reclamation site located in an unpopulated area (e.g., a strip mine located in a rural area).

Leachate collection system is a system or device installed immediately above a liner that is designed, constructed, maintained, and operated to collect and remove leachate from a sewage sludge unit.

Liner is soil or synthetic material that has a hydraulic conductivity of 1×10^{-7} centimeters per second or less.

Lower explosive limit for methane gas is the lowest percentage of methane gas in air, by volume, that propagates a flame at 25 degrees Celsius and atmospheric pressure.

Monthly average (Incineration) is the arithmetic mean of the hourly averages for the hours a sewage sludge incinerator operates during the month.

Monthly average (Land Application) is the arithmetic mean of all measurements taken during the month.

Municipality means a city, town, borough, county, parish, district, association, or other public body (including an intermunicipal agency of two or more of the foregoing entities) created by or under State law; an Indian tribe or an authorized Indian tribal organization having jurisdiction over sewage sludge management; or a designated and approved management agency under section 208 of the CWA, as amended. The definition includes a special district created under state law, such as a water district, sewer district, sanitary district, utility district, drainage district, or similar entity, or an integrated waste management facility as defined in section 201 (e) of the CWA, as amended, that has as one of its principal responsibilities the treatment, transport, use or disposal of sewage sludge.

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Other container is either an open or closed receptacle. This includes, but is not limited to, a bucket, a box, a carton, and a vehicle or trailer with a load capacity of one metric ton or less.

Pasture is land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, or stover.

Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

Permitting authority is either EPA or a State with an EPA-approved sludge management program.

Person is an individual, association, partnership, corporation, municipality, State or Federal Agency, or an agent or employee thereof.

Person who prepares sewage sludge is either the person who generates sewage sludge during the treatment of domestic sewage in a treatment works or the person who derives a material from sewage sludge.

pH means the logarithm of the reciprocal of the hydrogen ion concentration; a measure of the acidity or alkalinity of a liquid or solid material.

Place sewage sludge or sewage sludge placed means disposal of sewage sludge on a surface disposal site.

Pollutant (as defined in sludge disposal requirements) is an organic substance, an inorganic substance, a combination of organic and inorganic substances, or pathogenic organism that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food chain, could on the basis on information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction) or physical deformations in either organisms or offspring of the organisms.

Pollutant limit (for sludge disposal requirements) is a numerical value that describes the amount of a pollutant allowed per unit amount of sewage sludge (e.g., milligrams per kilogram of total solids); the amount of pollutant that can be applied to a unit of land (e.g., kilograms per hectare); or the volume of the material that can be applied to the land (e.g., gallons per acre).

Public contact site is a land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.

Qualified ground water scientist is an individual with a baccalaureate or post-graduate degree in the natural sciences or engineering who has sufficient training and experience in ground water hydrology and related fields, as may be demonstrated by State registration, professional certification, or completion of accredited university programs, to make sound professional judgments regarding ground water monitoring, pollutant fate and transport, and corrective action.

Range land is open land with indigenous vegetation.

Reclamation site is drastically disturbed land that is reclaimed using sewage sludge. This includes, but is not limited to, strip mines and construction sites.

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(January, 2007)

Risk specific concentration is the allowable increase in the average daily ground level ambient air concentration for a pollutant from the incineration of sewage sludge at or beyond the property line of a site where the sewage sludge incinerator is located.

Runoff is rainwater, leachate, or other liquid that drains overland on any part of a land surface and runs off the land surface.

Seismic impact zone is an area that has 10 percent or greater probability that the horizontal ground level acceleration to the rock in the area exceeds 0.10 gravity once in 250 years.

Sewage sludge is a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to: domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in treatment works.

Sewage sludge feed rate is either the average daily amount of sewage sludge fired in all sewage sludge incinerators within the property line of the site where the sewage sludge incinerators are located for the number of days in a 365 day period that each sewage sludge incinerator operates, or the average daily design capacity for all sewage sludge incinerators within the property line of the site where the sewage sludge incinerators are located.

Sewage sludge incinerator is an enclosed device in which only sewage sludge and auxiliary fuel are fired.

Sewage sludge unit is land on which only sewage sludge is placed for final disposal. This does not include land on which sewage sludge is either stored or treated. Land does not include waters of the United States, as defined in 40 CFR §122.2.

Sewage sludge unit boundary is the outermost perimeter of an active sewage sludge unit.

Specific oxygen uptake rate (SOUR) is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in sewage sludge.

Stack height is the difference between the elevation of the top of a sewage sludge incinerator stack and the elevation of the ground at the base of the stack when the difference is equal to or less than 65 meters. When the difference is greater than 65 meters, stack height is the creditable stack height determined in accordance with 40 CFR §51.100 (ii).

State is one of the United States of America, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, the Commonwealth of the Northern Mariana Islands, and an Indian tribe eligible for treatment as a State pursuant to regulations promulgated under the authority of section 518(e) of the CWA.

Store or storage of sewage sludge is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

Surface disposal site is an area of land that contains one or more active sewage sludge units.

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(January, 2007)

Total hydrocarbons means the organic compounds in the exit gas from a sewage sludge incinerator stack measured using a flame ionization detection instrument referenced to propane.

Total solids are the materials in sewage sludge that remain as residue when the sewage sludge is dried at 103 to 105 degrees Celsius.

Treat or treatment of sewage sludge is the preparation of sewage sludge for final use or disposal. This includes, but is not limited to, thickening, stabilization, and dewatering of sewage sludge. This does not include storage of sewage sludge.

Treatment works is either a federally owned, publicly owned, or privately owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature.

Unstable area is land subject to natural or human-induced forces that may damage the structural components of an active sewage sludge unit. This includes, but is not limited to, land on which the soils are subject to mass movement.

Unstabilized solids are organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

Volatile solids is the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess air.

Wet electrostatic precipitator is an air pollution control device that uses both electrical forces and water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

Wet scrubber is an air pollution control device that uses water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

3. Commonly Used Abbreviations

BOD	Five-day biochemical oxygen demand unless otherwise specified
CBOD	Carbonaceous BOD
CFS	Cubic feet per second
COD	Chemical oxygen demand
Chlorine	
Cl ₂	Total residual chlorine
TRC	Total residual chlorine which is a combination of free available chlorine (FAC, see below) and combined chlorine (chloramines, etc.)

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(January, 2007)

TRO	Total residual chlorine in marine waters where halogen compounds are present
FAC	Free available chlorine (aqueous molecular chlorine, hypochlorous acid, and hypochlorite ion)
Coliform	
Coliform, Fecal	Total fecal coliform bacteria
Coliform, Total	Total coliform bacteria
Cont. (Continuous)	Continuous recording of the parameter being monitored, i.e. flow, temperature, pH, etc.
Cu. M/day or M ³ /day	Cubic meters per day
DO	Dissolved oxygen
kg/day	Kilograms per day
lbs/day	Pounds per day
mg/l	Milligram(s) per liter
ml/l	Milliliters per liter
MGD	Million gallons per day
Nitrogen	
Total N	Total nitrogen
NH ₃ -N	Ammonia nitrogen as nitrogen
NO ₃ -N	Nitrate as nitrogen
NO ₂ -N	Nitrite as nitrogen
NO ₃ -NO ₂	Combined nitrate and nitrite nitrogen as nitrogen
TKN	Total Kjeldahl nitrogen as nitrogen
Oil & Grease	Freon extractable material
PCB	Polychlorinated biphenyl
pH	A measure of the hydrogen ion concentration. A measure of the acidity or alkalinity of a liquid or material
Surfactant	Surface-active agent

NPDES PART II STANDARD CONDITIONS
(January, 2007)

Temp. °C	Temperature in degrees Centigrade
Temp. °F	Temperature in degrees Fahrenheit
TOC	Total organic carbon
Total P	Total phosphorus
TSS or NFR	Total suspended solids or total nonfilterable residue
Turb. or Turbidity	Turbidity measured by the Nephelometric Method (NTU)
ug/l	Microgram(s) per liter
WET	“Whole effluent toxicity” is the total effect of an effluent measured directly with a toxicity test.
C-NOEC	“Chronic (Long-term Exposure Test) – No Observed Effect Concentration”. The highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specified time of observation.
A-NOEC	“Acute (Short-term Exposure Test) – No Observed Effect Concentration” (see C-NOEC definition).
LC ₅₀	LC ₅₀ is the concentration of a sample that causes mortality of 50% of the test population at a specific time of observation. The LC ₅₀ = 100% is defined as a sample of undiluted effluent.
ZID	Zone of Initial Dilution means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912**

STATEMENT OF BASIS FOR:

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
MODIFICATION TO DISCHARGE TO WATERS OF THE UNITED STATES

NPDES PERMIT NO.: **MA0003697**

PUBLIC NOTICE START AND END DATES: January 18, 2018 – February 16, 2018

NAME OF APPLICANT:

Barnhardt Manufacturing Company

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Barnhardt Manufacturing Company
247 Main Road
Colrain, MA 01340**

RECEIVING WATERS: **North River (Deerfield River Watershed)**

CLASSIFICATION: **B**

1.0 PROPOSED ACTION

On September 19, 2017, Region 1 of the U.S. Environmental Protection Agency (“Region”) and the Massachusetts Department of Environmental Protection issued an NPDES Permit (“Final Permit”) to Barnhardt Manufacturing Company (“BMC” or “Permittee”) for discharges from its manufacturing facility in Colrain, MA. The discharge authorized by NPDES Permit MA0003697 is directed to the North River via Outfall 001.

This statement of basis explains a major modification to the Final NPDES Permit pursuant to federal regulations found at 40 C.F.R. §122.62. The modification consists of the addition of a permit reopener clause as Part I.B.5 of the permit. This reopener clause would allow the Permittee to request a Permit Modification to extend the compliance period for attaining the effluent limit for total copper beyond the original three (3) year period. This request would be contingent upon the Permittee submitting to MassDEP site specific study data to support a determination of such a site specific copper water quality criterion or the MassDEP promulgating a site specific water quality criterion for copper for the North River. Either of these actions would need to have been completed within three (3) years of the effective date of the Final Permit. In addition, footnote 9 on Page 6 of the Permit, pertaining to the compliance schedule for complying with the total copper limit, has added a reference to the reopener clause in Part I.B.5.

2.0 BASIS OF PERMIT MODIFICATION

Addition of Permit Reopener Clause for the Total Copper Effluent Limit in Part I.A.1

In the Final Permit, EPA allowed for a period of three (3) years for the permittee to come into compliance with the water quality-based total copper limit of 22 ug/l, expressed as a monthly average and daily maximum limit. This is the time period that the Permittee had requested in its comments on the Draft Permit.

In its comments on the Draft Permit, the Permittee noted that it will seek to collect site specific data in support of its request for the determination of a site specific copper criterion for the North River. EPA acknowledges that the development of this site specific criterion may take more than three (3) years. This process includes the collection and submittal of data by the Permittee, a review of this data by the MassDEP, the potential promulgation of a site specific criterion for copper for the North River, and the eventual approval of this criterion by EPA. In light of the possibility that this process is ongoing as the end of the three (3) year compliance period approaches, EPA believes that it is warranted to include a reopener clause in this Draft Permit Modification to allow the Permittee to request additional time for the development of this site specific criterion, if necessary.

In its comments on the Draft Permit, the Permittee stated that it would also seek to evaluate suitable means and methods for compliance with the final copper limit, which would include an evaluation of manufacturing process changes that may reduce the concentration of copper in the effluent as well as the design, construction and start-up of treatment operations at the facility, if required. Since the development of a site specific copper criterion for the North River is not assured, EPA encourages the Permittee to explore ways to reduce the effluent copper levels at its facility upon the effective date of this Permit Modification, while also collecting data and seeking the determination of a site specific criterion from the MassDEP.

3.0 STATE CERTIFICATION

EPA may not issue a permit unless the State Water Pollution Control Agency with jurisdiction over the receiving water(s) either certifies that the effluent limitations contained in the Draft Permit Modification are stringent enough to assure that the discharge will not cause the receiving water to violate the State WQSs or it is deemed that the state has waived its right to certify. Regulations governing state certification are set forth in 40 C.F.R. § 124.53 and § 124.55. EPA has requested permit certification by the State pursuant to 40 C.F.R. § 124.53 and expects that the Draft Permit Modification will be certified.

If the State believes that any conditions more stringent than those contained in the Draft Permit Modification are necessary to meet the requirements of either the CWA §§ 208(e), 301, 302, 303, 306 and 307, and with appropriate requirements of State law, the State should include such conditions and, in each case, cite the CWA or State law reference upon which that condition is based. Failure to provide such a citation waives the right to certify as to that condition. The only exception to this is that the sludge conditions/requirements implementing § 405(d) of the CWA are not subject to the § 401 State Certification requirements. Reviews and appeals of limitations and conditions attributable to State Certification shall be made through the applicable procedures of the State and may not be made through the applicable procedures of 40 C.F.R. § 124.

In addition, the State should provide a statement of the extent to which any condition of the Draft Permit Modification can be made less stringent without violating the requirements of State law. Since the State's certification is provided prior to permit issuance, any failure by the State to provide this statement waives the State's right to certify or object to any less stringent condition.

It should be noted that under CWA § 401, EPA's duty to defer to considerations of state law is intended to prevent EPA from relaxing any requirements, limitations or conditions imposed by state law. Therefore, "[a] State may not condition or deny a certification on the grounds that State law allows a less stringent permit condition." *See* 40 C.F.R. § 124.55(c). In such an instance, the regulation provides that, "The Regional Administrator shall disregard any such certification conditions or denials as waivers of certification." *Id.* EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 C.F.R. § 122.4(d) and 40 C.F.R. § 122.44(d).

4.0 ADMINISTRATIVE RECORD, PUBLIC COMMENT PERIOD, HEARING REQUESTS, AND PROCEDURES FOR FINAL DECISION

All persons, including applicants, who believe any condition of the Draft Permit Modification is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period to: George Papadopoulos, U.S. EPA, Office of Ecosystem Protection, Industrial Permits Section, 5 Post Office Square, Suite 100 (OEP06-1), Boston, Massachusetts 02109-3912; or to: Papadopoulos.george@epa.gov.

Any person, prior to such date, may submit a request in writing for a public hearing to consider the Draft Permit Modification to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public meeting may be held if the criteria stated in 40 C.F.R. §124.12 are satisfied. In reaching a decision on the Final Permit Modification, EPA will respond to all significant comments and make these responses available to the public on EPA's website and at EPA's Boston office.

Following the close of the comment period, and after any public hearings, if such hearings are held, the EPA will issue a decision regarding the proposed permit modification and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within 30 days following the notice of the final permit decision, any interested person may submit a petition for review of the permit to EPA's Environmental Appeals Board consistent with 40 C.F.R. §124.19 and/or submit a request for an adjudicatory hearing to MassDEP's Office of Appeals and Dispute Resolution consistent with 310 CMR 1.00.

5.0 EPA & MASSDEP CONTACTS

Additional information concerning the Draft Permit Modification may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays, from the EPA and MassDEP contacts below:

George Papadopoulos, Industrial Permits Section
5 Post Office Square - Suite 100 - Mailcode OEP 06-1
Boston, MA 02109-3912
Email: papadopoulos.george@epa.gov
Telephone: (617) 918-1579; FAX: (617) 918-1505

Xiaodan Ruan, MassDEP
Division of Wastewater Management
Surface Water Discharge Permit Program
1 Winter Street, 5th Floor
Boston, Massachusetts 02108
Email: xiaodan.ruan@state.ma.us;
Telephone: (617) 654-6517; FAX: (617) 292-5696

1/9/18

Date

Ken Moraff, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency

MASSACHUSETTS DEPARTMENT OF
ENVIRONMENTAL PROTECTION
COMMONWEALTH OF MASSACHUSETTS
1 WINTER STREET
BOSTON, MASSACHUSETTS 02108

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
OFFICE OF ECOSYSTEM PROTECTION
REGION I
BOSTON, MASSACHUSETTS 02109

JOINT PUBLIC NOTICE OF A DRAFT NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM (NPDES) PERMIT MODIFICATION TO DISCHARGE INTO
THE WATERS OF THE UNITED STATES UNDER SECTION 301, 316(a), AND 402
OF THE CLEAN WATER ACT (THE "ACT"), AS AMENDED, AND REQUEST FOR
STATE CERTIFICATION UNDER SECTION 401 OF THE ACT.

DATE OF PUBLIC COMMENT PERIOD: January 18, 2018 – February 16, 2018

PERMIT NUMBER: **MA0003697**

PUBLIC NOTICE NUMBER: MA-008-18

NAME AND MAILING ADDRESS OF PERMITTEE:

**Barnhardt Manufacturing Company
P.O. Box 3
Colrain, MA 01340**

NAME AND ADDRESS OF THE FACILITY WHERE DISCHARGE OCCURS:

**Barnhardt Manufacturing Company
247 Main Road
Colrain, MA 01340**

RECEIVING WATER: **North River (Deerfield River Watershed), Class B water**

PREPARATION OF THE DRAFT PERMIT MODIFICATION:

The U.S. Environmental Protection Agency ("EPA") and the Massachusetts Department of Environmental Protection ("MassDEP") have cooperated in the development of a draft permit modification for the above identified facility. The effluent limits and permit conditions imposed have been drafted to assure compliance with the Clean Water Act ("CWA"), 33 U.S.C. sections 1251 et seq., the Massachusetts Clean Waters Act, G.L. c. 21, §§ 26-53, 314 CMR 3.00 and State Surface Water Quality Standards at 314 CMR 4.00.

INFORMATION ABOUT THE DRAFT PERMIT MODIFICATION:

A fact sheet or a statement of basis (describing the type of facility; type and quantities of wastes; a brief summary of the basis for the draft permit conditions; and significant factual, legal and policy questions considered in preparing this draft permit modification) and the draft permit modification may be obtained at no cost at:

http://www.epa.gov/region1/npdes/draft_permits_listing_ma.html or by writing or calling EPA's contact person named below:

George Papadopoulos, US EPA
5 Post Office Square
Suite 100 (OEP 06-1)
Boston, MA 02109-3912
Telephone: (617) 918-1579

The administrative record containing all documents relating to this draft permit modification is on file and may be inspected at the EPA Boston office mentioned above between 9:00 a.m. and 5:00 p.m., Monday through Friday, except holidays.

PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARING:

All persons, including applicants, who believe any condition of this draft permit modification is inappropriate, must raise all issues and submit all available arguments and all supporting material for their arguments in full by February 16, 2018, to the U.S. EPA, George Papadopoulos, 5 Post Office Square, Suite 100, Mailcode OEP 06-1, Boston, Massachusetts 02109-3912. Any person, prior to such date, may submit a request in writing to EPA and the MassDEP for a public hearing to consider this draft permit modification. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least sixty (60) days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on this draft permit modification the Regional Administrator will respond to all significant comments and make the responses available to the public at EPA's Boston office.

FINAL PERMIT DECISION AND APPEALS:

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within 30 days following the notice of the final permit decision any interested person may submit petition to the Environmental Appeals Board to reconsider or contest the final decision.

Lealdon Langley, Director
MASACHUSETTS WETLANDS AND
WASTEWATER PROGRAMS
MASSACHUSETTS DEPARTMENT OF
ENVIRONMENTAL PROTECTION

Ken Moraff, Director
OFFICE OF ECOSYSTEM PROTECTION
ENVIRONMENTAL PROTECTION
AGENCY