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Clerk of the Board  
U. S. Environmental Protection Agency  
Environmental Appeals Board  
1200 Pennsylvania Avenue, N.W.  
(Mail Code 1103M)  
Washington, D.C. 20460-0001

**Re: Appeal of NPDES Permit  
Barnhardt Manufacturing Company  
247 Main Road, Colrain, Massachusetts 01340  
NPDES Permit No. MA0003697**

To Whom It May Concern:

Omni Environmental Group (OEG) has prepared this cover letter and attached document on behalf of Mr. Lewis Barnhardt, Barnhardt Manufacturing Company, 247 Main Road, Colrain, Massachusetts (BMC) to provide for a formal appeal of the National Pollution Discharge Elimination System (NPDES) Permit No. MA0003697 issued to BMC, 247 Main Road, Colrain, Massachusetts. The subject NPDES Permit was signed by the United States Environmental Protection Agency (USEPA) and the Massachusetts Department of Environmental Protection (MassDEP) Wetlands and Wastewater Programs and dated September 19, 2017. This appeal letter been provided to USEPA and MassDEP in hard copy format prior to the 30-day filing deadline set forth under the Permit and pursuant to 40 C.F.R. 124.19(3).

Should you have any questions or if you would like to discuss this submittal, please do not hesitate to contact the undersigned at (978) 256-6766.

Sincerely,

**Omni Environmental Group**

*Gregory R. Morand*

Gregory R. Morand, LSP  
Principal

Authorization of the Permittee – Barnhardt Manufacturing Company

Signature: *Lewis B. Barnhardt*

Print Name: Lewis B. Barnhardt

Title: President / COO

Date: 10/12/17

cc: Massachusetts Department of Environmental Protection, NPDES Surface Water Permitting,  
Western Regional Office, 436 Dwight Street, Springfield, Massachusetts 01103

USEPA Region 1, Attention: Mr. George Papadopoulos (via electronic mail)

**BEFORE THE ENVIRONMENTAL APPEALS BOARD  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C.**

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In re: )  
)  
)

Barnhardt Manufacturing Co. )  
247 Main Road, Colrain, MA )  
Permit No.: MA00003697 )

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**APPEAL FOR REVIEW**

Comes now the Barnhardt Manufacturing Company and Appeals the Environmental Appeals Board to review the United States Environmental Protection Agency's issuance of an NPDES Permit for the Barnhardt Manufacturing Company Facility in Colrain, Massachusetts.

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## ATTACHMENTS

Attachment 1	March 15, 2017 Draft Permit Comment Letter
Attachment 2	September 2017 Final NPDES Permit

## **1.0 INTRODUCTION**

Pursuant to 40 C.F.R. §124.19(a), Barnhardt Manufacturing Company (Permittee or BMC) Appeals for review certain conditions of NPDES Permit No. MA00003697 (Permit), which was issued to BMC on September 19, 2017, by the United States Environmental Protection Agency (USEPA).

Omni Environmental Group, LLC (OEG) prepared this NPDES Appeal for the owner and operator of the Site Facility, BMC and for submittal to the Environmental Appeals Board (EAB). Mr. Lewis Barnhardt is the president of BMC and approved the preparation and submittal of this document to the USEPA and the Massachusetts Department of Environmental Protection (MassDEP) Division of Wetlands and Waterways.

Permittee contends that certain conditions under the Permit require an exercise of discretion and important policy considerations that the EAB and USEPA should, in its discretion, review.

## **2.0 THRESHOLD PROCEDURAL REQUIREMENTS**

Permittee satisfies the threshold requirements for filing an Appeal for review under 40 CFR, Part 124, to wit:

- Permittee has standing to Appeal for review of the Permit decision because it participated in the public comment period on the Permit. See 40 C.F.R. §124.19(a). Copies of the Permittee's comments are included in Attachment 1 to this Appeal.
- The issues raised by Permittee in its Appeal were raised during the public comment period and therefore were preserved for review.

In accordance with 40 CFR Part 124.19(d)(1)(iv), the Permittee provides a statement of compliance with the word limitation set forth under 40 CFR Part 124.19(d)(3) for this Appeal of the Permit.

## **3.0 FACTUAL AND STATUTORY BACKGROUND**

The BMC Facility is located at 247 Main Road in Colrain, Massachusetts (Facility) and is a raw cotton bleachery utilizing hydrogen peroxide for the cleaning and bleaching of cotton fiber. The on-Site wastewater treatment plant manages the wastewater associated with its manufacturing operations, and further manages the sanitary wastes from greater than 20 homes in the immediate vicinity of the Facility. The subject receiving water is the North River and the Deerfield River Watershed.

On February 15, 2017, BMC received the USEPA issued a draft NPDES Permit for public comment, which would replace the Permittee's 2010 NPDES Permit. BMC submitted comments on the draft Permit, which are included as Attachment 1 in this Appeal. Following the public

comment period, the USEPA issued a Final NPDES Permit to BMC, dated September 19, 2017, which is the subject of this Appeal for Review and is included as Attachment 2 in this Appeal.

In the Permittee's final NPDES Permit approved and issued by the USEPA, a discharge limitation of 22 micrograms per liter ( $\mu\text{g/L}$ ) was set for total copper (average monthly and daily maximum), collected once per month as a composite sample. Total copper footnote 9 indicates that, "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". The Permit further states, "After this three (3) year period, the permittee shall comply with the monthly average and daily maximum total copper limits of 22  $\mu\text{g/L}$ ...".

Before the USEPA issued the Permit, BMC submitted comment on total copper under the draft Permit as *Comment No. 3* from the March 15, 2017 letter provided during the public comment period of the draft Permit (Attachment 1).

In the Permittee's final NPDES Permit approved and issued by the USEPA, no specific total nitrogen (TN) limit was provided. The special condition regarding "Treatment Plant Optimization for Nitrogen" states that "The permittee shall implement the recommended operational changes to maintain the existing mass discharge loading of TN, which will be measured as an annual average." However, the Permit does not state a compliance date for implementation of the operational changes or recognize that physical changes to the Facility may be required. Furthermore, a compliance schedule for implementation of changes required to conform with the annual average nitrogen load of 67.3 lbs/day was not provided for under the Permit.

Before the USEPA issued the Permit, BMC submitted comment on TN requirements under the draft Permit as *Comment No. 6* from the March 15, 2017 letter provided during the public comment period of the draft Permit (Attachment 1).

#### **4.0 ISSUE PRESENTED FOR APPEAL**

Under the Permit, Total Copper contains a discharge limitation of 22  $\mu\text{g/L}$  (average monthly and daily maximum), collected once per month as a composite sample. Total Copper footnote 9 indicates that, "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". The Permit further states, "After this three (3) year period, the permittee shall comply with the monthly average and daily maximum total copper limits of 22  $\mu\text{g/L}$ ...".

Under the Permit, no specific TN is provided. The special condition regarding "Treatment Plant Optimization for Nitrogen" states that "The permittee shall implement the recommended

operational changes to maintain the existing mass discharge loading of TN, which will be measured as an annual average.” The Permit does not state a compliance date for implementation of the operational changes or recognize that physical changes to the facility may be required. Furthermore, a compliance schedule for implementation of changes required to conform with the annual average nitrogen load of 67.3 lbs/day was not provided.

## 5.0 ARGUMENT

BMC respectfully appeals the above total copper requirements under the Permit based upon 40 CFR 124.19(4)(b), and further cites *Comment No. 3* from the March 15, 2017 letter provided during the public comment period of the draft Permit. USEPA recognized BMC’s intention to pursue a Site-specific limit for copper and provided for the requested three (3) year compliance period under the Permit. As stated above, footnote 9 of the Permit requires the permittee to comply with the monthly average and daily maximum total copper limits of 22 µg/L. Based on footnote 9, it is not clear to BMC how the total copper limit may be changed to allow modification based on Site-specific study and additional information that may justify a higher limit, without reopening the Permit.

Copper toxicity is known vary markedly due to various physicochemical characteristics of the exposure water, including: temperature, dissolved organic compounds, suspended particles, pH, and various inorganic cations and anions, including those composing hardness and alkalinity, ultimately determining copper bioavailability. Substantial scientific evidence<sup>1</sup> and published guidance<sup>2</sup> demonstrates that copper toxicity is affected by exposure conditions, much of which is likely attributed to effects of ligands and cations on copper bioavailability.

Following the three (3) year compliance period, BMC requests the opportunity to the use a BLM translator, water effect ratio (WER), or other Site-specific analysis, in accordance with USEPA guidance<sup>2</sup> and potentially other scientifically valid assessment methodologies<sup>1</sup> to consider adjustment to the 22 µg/L limit for total copper under the Permit. Furthermore, BMC requests that the total copper limit under the Permit be revised from 22 µg/L to “monitor and report” until such time that additional studies can be completed that reflect Site-specific conditions.

Alternatively, consistent with the USEPA NPDES Permit Writer’s Manual, BMC would accept a re-opener clause under the Permit to allow for Permit re-opening following the three (3) year study period to set a total copper limit when the Site-specific data have been collected, submitted and reviewed.

BMC respectfully appeals the above TN requirements under the Permit based upon 40 CFR 124.19(4)(b), and further cites *Comment No. 6* from the March 15, 2017 letter provided during the public comment period of the draft Permit. BMC anticipates that the optimization study for treatment plant TN removal may, in addition to “operational changes,” recommend physical changes to the BMC facility that will require additional time and effort to integrate and implement. Until such time that both operational and physical changes can be completed, BMC cannot assure compliance with the annual average TN load goal of 67.3 lbs/day.

1. Interim Guidance on Determination and Use of Water-Effect Ratios for Metals; Streamlined Water-Effect Ratio Procedure for Discharges of Copper; Aquatic Life Ambient Freshwater Quality Criteria – Copper; and Draft Technical Support Document: Recommended Estimates for Missing Water Quality Parameters for Application in EPA’s Biotic Ligand Model

2. Hall & Associates – Evaluation of Massachusetts Water Quality Criteria for Nutrients, Bacteria and Metals

Unofficial communications held separately with MassDEP and USEPA seem to support BMCs interpretation that existing mass discharge loading of TN is not an enforceable discharge limit for this Permit cycle. As part of this appeal, BMC requests clarification that maintenance of the existing TN mass discharge loading is not an enforceable discharge limit under the Permit.

## 6.0 CONCLUSIONS

The Permittee requests:

1. The EAB consider the Permittee's request be revised from 22  $\mu\text{g/L}$  to "monitor and report" until such time that additional studies can be completed that reflect Site-specific conditions, in accordance with the information presented herein and with 40 CFR 124.19(4)(b);
2. The EAB consider the Permittee's request for an adjustment to the total copper discharge limitation following the Site-specific study, in accordance with the information presented herein and with 40 CFR 124.19(4)(b);
  - 2.b. In lieu of the above, the EAB to allow for a re-opener clause under the Permit, to set a total copper limit when the Site-specific data have been collected, submitted and reviewed; and
3. The EAB and/or USEPA to clarify that maintenance of the existing TN mass discharge loading is not an enforceable discharge limit under the Permit.