

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
1 National Life Drive, Main 2
Montpelier, VT 05620-3521

INDIRECT
DISCHARGE PERMIT AMENDMENT

Permit No.: ID-9-0321-1
PIN: NS88-0008.04

SECTION A – “ADMINISTRATION”

In compliance with provisions of 10 V.S.A. §1263, and in accordance with the following conditions, the permittee:

Windsor Brewing Company, LLC (dba Harpoon Brewery)
336 Ruth Carney Drive
Windsor, VT 05089

is authorized to discharge non-sewage, food processing wastewater from the manufacturing of beer at the permittee’s facility in Windsor, Vermont to manure pits located in Addison, Vermont. The wastewater consists of spent brewer’s yeast slurry which has been removed from the fermenter by centrifugation. The resulting manure/ wastewater mixture will be managed in accordance with the Vermont Agency of Agriculture’s Accepted Agricultural Practices. **This amendment authorizes disposal to the Vermont Technical College’s anaerobic digester in Randolph, Vermont.**

A1. Permit Summary:

Expiration Date	December 31, 2020
Type of Waste	Non-Sewage Brewery Wastewater
Disposal System	Discharge of wastewater to manure pits or anaerobic digester and then managed in accordance with Accepted Agricultural Practices
Receiving Stream(s)	Dead Creek and/or Otter Creek, Third Branch White River
Waste Generated	Approx. 3,000 gallons per week (approx. 156,000 gallons per year)
Total Digester/Manure Pit Capacity Available for Brewery Waste	Approx. 516,316 gallons per year

A2. Compliance Schedule:

The following schedule summarizes the actions and requirements necessary for compliance with the conditions of this permit. The permittee shall complete the requirements in accordance with the dates indicated. See the designated section for specific details.

<u>Condition # & Description</u>	<u>Schedule Date</u>
A3. Apply for renewal of Indirect Discharge Permit	September 30, 2020
D1. Perform wastewater sampling and analyses	Semi-Annually
D2. Submit disposal report	Quarterly
D3. Other monitoring	As required

A3. Expiration Date:

This permit, unless revoked or amended, shall be valid until December 31, 2020 despite any intervening change in Water Quality Standards or the Vermont Guidelines for Land Application of Dairy Processing Wastes. Renewal of this Indirect Discharge Permit will be subject to all rules applicable at the time of application for renewal, including biological standards to determine significant alteration of aquatic biota.

The permittee shall apply for an Indirect Discharge Permit renewal by September 30, 2020. For the purposes of Title 3, an application for renewal of this indirect discharge permit will be considered timely if a complete application is received by the expiration date.

A4. Effective Date:

This permit amendment becomes effective on the date of signature.

A5. Revocation:

The Secretary may revoke this permit in accordance with 10 V.S.A. §1267.

A6. Transfer of Permit:

This permit is not transferable without prior written approval of the Secretary. The permittee shall notify the Secretary immediately, in writing, before any sale, lease or other transfer of ownership of the property from which the permitted discharge originates. The proposed transferee shall make application for a permit to be reissued in their name. Failure to apply shall be considered a violation of this permit. Responsibility for compliance with the conditions of this permit shall be the burden of the permittee until such time as transfer of the permit to the transferee is complete. All application and operating fees must be paid in full prior to transfer of this permit. This permit shall be transferred only upon showing by the permittee or proposed transferee of compliance with the following conditions:

- a. The transferee shall be a legal entity, financially and technically competent to operate, inspect, maintain and replace the system.
- b. The transferee shall demonstrate that they have the legal authority to raise revenues for the proper operation, inspection, and maintenance of the system.
- c. The transferee shall provide a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee to the Secretary.

A7. Minor Modifications of Permit:

The Secretary may modify this permit without requiring a permit application, a public notice, or a public hearing to correct typographical errors or increase the frequency of monitoring or reporting in accordance with Condition D(3) of this permit.

A8. Indirect Discharge Rules:

This indirect discharge was reviewed and qualified for an Indirect Discharge Permit in accordance with the Vermont Water Quality Standards; Section 14-1902(c) of the Indirect Discharge Rules; and the Vermont Guidelines for Land Application of Dairy Processing Wastes.

A9. Right of the Agency to Inspect:

The permittee shall make arrangements to insure that the Secretary or the Secretary's authorized representatives, upon the presentation of their credentials and at reasonable times:

A9. Right of the Agency to Inspect (continued):

- a. To enter any field or inspect any manure pit being used as a disposal site;
- b. To enter upon permittee's premises in which any effluent source, treatment or storage system is located or in which any records are required to be kept under the conditions of the permit;
- c. To have access to and copy any records required to be kept under conditions of this permit;
- d. To inspect any monitoring equipment or method required in this permit;
- e. To sample any discharge of waste, groundwater or surface water; or
- f. To inspect any collection, treatment, pollution management or disposal facility required by this permit.

A10. Permit Availability:

A copy of this permit shall remain at the office of the permittee and, upon request, shall be made available for inspection by the Secretary.

A11. Modifications and Additions to Disposal System:

The permittee may request to add additional manure pits to be utilized for disposal in accordance with the following:

- a. submittal of an application for an administrative amendment of this permit to update the authorized list of manure pits in Attachment A.
- b. submittal of a written agreement between the permittee and the farmer(s). Each agreement must state the location and volume of the farmer's manure pit, state that the farmer agrees to manage the wastewater/ manure mixture in accordance with the Accepted Agricultural Practices, and be signed and dated by both parties. Documentation verifying the construction and volume of the pit(s) must also be submitted.

A12. Operating Fees:

This indirect discharge is subject to operating fees. The permittee shall submit the operating fees in accordance with procedures provided by the Secretary.

SECTION B - "INDIRECT DISCHARGE"

B1. Nature of Indirect Discharge:

The wastewater authorized for disposal by this permit is a high strength food processing wastewater consisting of spent brewer's yeast slurry which has been removed from the fermenter by centrifugation at the permittee's brewing facility in Windsor, Vermont. Washwater generated from the cleaning of brewery equipment is discharged to the Windsor wastewater treatment facility. The spent yeast slurry is collected in a sealed roll-off container before being transported from the facility by a commercial hauler and disposed of in manure pits located on a farm in Addison, Vermont, or to the Vermont Technical College's anaerobic digester. The permittee generates approximately 3,000 gallons of spent brewer's yeast slurry per week, or approximately 156,000 gallons per year.

Based on analytical results of the spent brewer's yeast slurry, the high strength wastewater is expected to have the following approximate concentrations:

Biochemical Oxygen Demand (BOD)	79,000 – 86,000 mg/L
Total Kjeldahl Nitrogen (TKN)	1,700 – 1,800 mg/L
Nitrate Nitrogen	9.4 – 14.0 mg/L
Total Phosphorus	300 – 360 mg/L
Chloride	270 – 280 mg/L
Sodium	110 – 130 mg/L
Potassium	980 – 1,100 mg/L

These are not permit limits and exceedences of these values may occur.

B2. Chemicals Used:

The spent brewer's yeast slurry is separated by centrifugation prior to cleaning of equipment, therefore no chemicals are expected to be in the high strength wastewater. The washwater generated from the cleaning of equipment is discharged to the Windsor wastewater treatment facility.

SECTION C - "SYSTEM OPERATION"

C1. General:

The wastewater shall be handled at all times in a manner that will (1) not permit the surface runoff of wastewater to waters of the State and (2) not result in a violation of the Vermont Water Quality Standards.

C2. Limits on Disposal:

This permit authorizes only the discharge of non-sewage wastewater from the Windsor Brewing Company LLC, dba Harpoon Brewery, facility in Windsor, Vermont to the manure pits and anaerobic digester identified in Attachment A. The maximum disposal capacity at the farm is 358,316 gallons per calendar year. The maximum disposal capacity at the digester is estimated to be approximately 4,000 gallons per week, or roughly 208,000 gallons per year. The resulting manure/wastewater mixture is to be managed in accordance with the Vermont Agency of Agriculture's Accepted Agricultural Practices.

SECTION D - "MONITORING"

D1. Monitoring Requirements:

Upon the effective date of this permit, the permittee shall sample and analyze the wastewater as follows:

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Sodium (Na+)	mg/L	grab	Semi-annual
Chloride (Cl-)	mg/L	grab	Semi-annual
Total Phosphorus	mg/L	grab	Semi-annual
Potassium (K)	mg/L	grab	Semi-annual
Total Kjeldahl Nitrogen (TKN)	mg/L	grab	Semi-annual
Total Nitrogen	mg/L	grab	Semi-annual
pH	S.U.	grab	Semi-annual

Semi-annual periods are January - June and July - December. If any disposal of wastewater occurs in a semi-annual period, a sample is required to be collected and analyzed. Samples shall be taken from the roll-off container after agitation of the contents of the container.

D1. Monitoring Requirements (continued):

The results of the analysis shall be submitted to the Secretary by the 15th day of the second month following the date of sampling.

The laboratory utilized for analyzing the samples shall demonstrate successful performance for U.S. EPA check samples for all parameters and shall analyze any check samples provided by the Secretary. Failure to obtain an acceptable result for either the Secretary or EPA check samples may be a basis for requiring an alternate analytical laboratory.

D2. Quarterly Disposal Report:

On a quarterly basis, the permittee shall submit a written report to the Secretary listing 1) the dates in which disposal occurred, 2) the farm or digester where disposal occurred, and 3) the daily volume in gallons discharged to the manure pits or digester for the previous quarter. The report shall be signed by the permittee under the following certification language:

“I certify under penalty of law that I have personally examined, and am familiar with, the information submitted herein. I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.”

The quarterly reports shall be submitted by the 15th day of January, April, July and October for the previous quarter.

D3. Other Water Quality Monitoring:

No other water quality monitoring of the system is required under this permit. However, the Secretary reserves the right to require additional monitoring of the system in accordance with Condition A(9) should operation of the system fail to meet the requirements of Sections C(1) and C(2).

SECTION E - "COMPLIANCE REVIEW"


If the results of any monitoring or reporting indicate that there is a possibility that the Vermont Water Quality Standards may be violated, the Secretary may require monitoring of groundwater and/or surface water. If continued monitoring and analysis indicates that a violation of the wastewater discharge rate or a violation of the Vermont Water Quality Standards has occurred, is occurring, or is likely to occur, the Secretary may require the permittee to take appropriate corrective actions to eliminate or reduce the possibility of a violation.

The issuance of this Indirect Discharge Permit Amendment, ID-9-0321-1, to the Windsor Brewing Company, LLC, dba Harpoon Brewery, by the Secretary relies upon the data, design, judgment and other information supplied by the applicant, the applicant's consultants and other experts who have participated in the preparation of the application. The Secretary makes no assurance that this system will meet the performance objectives of the applicants and no warranties or guarantees are given or implied.

SECTION F - "EFFECTIVE DATE"

This Indirect Discharge Permit Amendment, ID-9-0321-1, issued to the Windsor Brewing Company, LLC, dba Harpoon Brewery, for the discharge of non-sewage wastewater from the Windsor Brewing Company facility in Windsor, Vermont to the manure pits and anaerobic digester listed in Attachment A, is effective on this 24th day of June, 2016.

Alyssa B. Schuren, Commissioner
Department of Environmental Conservation

By: 
Bryan Redmond, Director
Drinking Water and Groundwater Protection Division

ATTACHMENT A

Windsor Brewing Company, LLC
dba Harpoon Brewery

List of Approved Manure Pits and Anaerobic Digester for Disposal of
Non-Sewage Brewery Wastewater

June, 2016

Disposal Site	Location	Manure Pit Capacity	Capacity Available for Brewery Waste
Bill Veldman Farm	6144 VT Route 22A Addison, Vermont	3,583,157 gallons ¹ (2 manure pits)	358,316 gallons per year ²
Vermont Technical College Anaerobic Digester	VTC Campus, Randolph Center, Vermont	NA	Approx. 4,000 gallons per week ³ (208,000 gallons per year)

Notes:

- 1: Based on information provided by the Natural Resources Conservation Service and the Vermont Agency of Agriculture.
- 2: Based on 10% of the manure pit capacity in accordance with the Vermont Guidelines for Land Application of Dairy Processing Wastes.
- 3: Vermont Technical College has approval from the Vermont Agency of Agriculture, Farms & Markets to accept up to 22,000 gallons per week of high strength brewery wastewater in accordance with VTC's Community Comprehensive Nutrient Management Plan. Based on the amount of brewery waste generated or estimated to be generated from other breweries that have authorization to dispose of their waste at the VTC digester, the disposal limit for the Windsor Brewing Company is estimated to be approximately 4,000 gallons per week, or roughly 208,000 gallons per year, subject to change by Vermont Technical College.