

State of Vermont
Department of Environmental Conservation

AGENCY OF NATURAL RESOURCES
Wastewater Management Division
103 South Main St. - Sewing Bldg.
Waterbury VT 05671-0405
Telephone: (802) 241-3822
FAX: (802) 241-2596

June 28, 2007

Jon Monahan
Monahan SFI, LLC
3046 Case Street
Middlebury, VT 05753

Re: Monahan SFI, LLC – Discharge Permit No. 3-1521 and Fact Sheet

Dear Mr. Monahan,

Enclosed is your copy of Discharge Permit No. 3-1521, which has been signed on behalf of the Commissioner of the Department of Environmental Conservation. The permit authorizes the discharge of non-contact cooling water and quench water from your facility to Muddy Branch.

Please review the permit carefully and make note of the effluent limitations, monitoring requirements, and other special conditions.

In regard to the comments submitted by your consultant during the public comment period we offer the following responses.

1. Muddy Brook is defined as a “cold water fish habitat” by Appendix A of the Vermont Water Quality Standards. The Standards are developed by the Water Resources Panel and approved by EPA. The Vermont Water Quality Standards require that cold water fish habitat be managed to support cold water fish species such as trout. Therefore the allowable temperature change and dissolved oxygen reduction for cold water fish habitat is more stringent than for warm water fish habitat.
2. Since the Vermont Water Quality Standards do not contain seasonal temperature provisions for cold water fish habitat, the permit requires temperature monitoring on a year around basis. We are aware that collecting samples during the winter can be a difficult task with respect to access and safety and expect sampling to be adjusted as necessary to maintain proper safety.
3. We agree that there are many variables that could affect the temperature of Muddy Branch. However the Vermont Water Quality Standards are very specific and only allow for a 1° F increase in waters designated as cold water fish habitat from a discharge. We have conditioned the permit to allow for as much flexibility as possible by requiring sampling above the discharge point and incorporating a 200 foot mixing zone (the



maximum allowed by the Standards) for the assimilation of your discharge.

If you have any questions regarding this permit, please contact Randy Bean at our office.

Sincerely,



Brian D. Kooiker, Chief
Direct Discharge and O&M Section

attachments

cc. w/attachments

Liz Dickson, VT DEC WWMD

Elias J Erwin, Lincoln Applied Geology

Craig Desautels, Monahan SFI, LLC

AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WASTEWATER MANAGEMENT DIVISION
103 SOUTH MAIN STREET, - THE SEWING BUILDING
WATERBURY, VERMONT 05671-0405

Permit No.: 3-1521
File No.: 01-11
PIN: RU95-0229
NPDES No.: VT0001371

DISCHARGE PERMIT

In compliance with the provisions of the Vermont Water Pollution Control Act, as amended, (10 V.S.A. Chapter 47 §1251 et. seq), and the Federal Clean Water Act, as amended (33 U.S.C. § 1251 et. seq),

Monahan SFI, LLC
3046 Case Street
Middlebury, VT 05753

(hereinafter referred to as the "permittee") is authorized, by the Secretary, Agency of Natural Resources, to discharge from a facility located at:

3046 Case Street
Middlebury, Vermont

to the Muddy Branch, Class B at the point of discharge in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III hereof.

This permit shall become effective on the date of signing.

This permit and the authorization to discharge shall expire on June 30, 2012.

Signed this 28th day of June, 2007.

Jeffrey Wennberg, Commissioner
Department of Environmental Conservation

By Christine Thompson
Christine Thompson, Director
Wastewater Management Division

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Beginning of the date of signing and lasting through June 30, 2012, the permittee is authorized to discharge from outfall serial number S/N 001: quench water and non-contact cooling water. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow		0.250 MGD	daily	Total flow
Biochemical Oxygen Demand (BOD ₅)		54.2 lbs/day	1 x month	24 hour composite
Total Suspended Solids		39.6 lbs/day	1 x month	24 hour composite
Oil and Grease		60.4 lbs/day	1 x month	24 hour composite
pH		6.5 to 8.5 S.U.	1 x week	grab
Temperature ⁽¹⁾		The discharge shall not increase the receiving water by more than 1°F	1 x week	grab
Total Residual Chlorine		0.1 mg/l	1 x daily ⁽²⁾	grab
Bis(2-ethylhexyl) phthalate		Monitor only	2 x year ⁽³⁾	grab
Di-n-butyl phthalate		Monitor only	2 x year ⁽³⁾	grab
Dimethyl phthalate		Monitor only	2 x year ⁽³⁾	grab
Total Silver		Monitor only	2 x year ⁽³⁾	24 hour composite

All samples, except temperature taken in compliance with the monitoring requirements above, shall be collected at the sampling manhole.

- (1) This permit hereby establishes a mixing zone in Muddy Branch for the purpose of dispersion or dilution for thermal waste not to extend more than 200 feet downstream from the point of discharge. Samples taken in compliance with the monitoring requirements for temperature shall be taken at the following locations:
 1. Muddy Branch at the spillway from Dow Pond
 2. Effluent at the sampling manhole
 3. Muddy Branch, at a point not more than 200 feet downstream from the outlet of the culvert under Route 116.
- (2) Total Residual Chlorine monitoring is only required when municipal water is being used in the manufacturing process.
- (3) Samples shall be collected in September and March.

2. Special Conditions:

- a. The permittee shall specifically note on the Discharge Monitoring Report the dates when municipal water is being used in the manufacturing process.
- b. This discharge shall not have concentrations of contaminants including oil, grease, scum, foam, or floating solids which would cause a violation of the water quality standards of the receiving waters.
- c. This discharge shall not cause visible discoloration of the receiving waters.
- d. This discharge shall not cause a violation of water quality standards in the receiving water.

B. REAPPLICATION

If the permittee desires to continue to discharge after the expiration date of this permit, he shall apply on the application forms then in use at least 180 days before the permit expires.

Reapply for a Discharge Permit by December 31, 2011.

C. OPERATING FEES

This discharge is subject to operating fees. The permittees shall submit the operating fees in accord with the procedures provided by the Secretary.

D. PRIORITY POLLUTANT ANALYSIS

By no later than September 30, 2011, the permittee shall collect and analyze a sample from outfall S/N 001 for the priority pollutants specified in Attachment A.

The results of this sampling and analysis shall be submitted as an attachment to the appropriate monthly Discharge Monitoring Report.

E. MONITORING AND REPORTING**1. Sampling and Analysis**

The sampling, preservation, handling, and analytical methods used shall conform to regulations published pursuant to Section 304(g) of the Clean Water Act, under which such procedures may be required. Guidelines establishing these test procedures have been published in the Code of Federal Regulations, Title 40, Part 136 (Federal Register, Vol. 56, No. 195, July 1, 1999 or as amended).

If applicable, *Escherichia coli* shall be tested using test method 9213 D, found in Standard Methods for the Examination of Water and Wastewater, 18th or subsequent edition(s).

Samples shall be representative of the volume and quality of effluent discharged over the sampling and reporting period. All samples are to be taken during normal operating hours. The permittee shall identify the effluent sampling location used for each discharge.

2. Reporting

The Permittee is required to submit monitoring results as specified on a Discharge Monitoring Report (Form WR-43). Reports are due on the 15th day of each month, beginning with the month following the effective date of this permit.

If, in any reporting period, there has been no discharge, the permittee must submit that information by the report due date.

Signed copies of these, and all other reports required herein, shall be submitted to the Secretary at the following address:

Agency of Natural Resources
Department of Environmental Conservation
Wastewater Management Division
103 South Main Street, The Sewing Building
Waterbury, Vermont 05671-0405

All reports shall be signed:

- a. In the case of corporations, by a principal executive officer of at least the level of vice president, or his/her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the permit form originates;
- b. In the case of a partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of a municipal, State, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

3. Recording of Results

The permittee shall maintain records of all information resulting from any monitoring activities required including:

- a. The exact place, date, and time of sampling;
- b. The dates and times the analyses were performed;
- c. The person(s) who performed the analyses;
- d. The analytical techniques and methods used including sample collection handling and preservation techniques;
- e. The results of all required analyses.

- f. The records of monitoring activities and results, including all instrumentation and calibration and maintenance records;
- g. The original calculation and data bench sheets of the operator who performed analysis of the influent or effluent pursuant to requirements of Section I.(A) of this permit.

The results of monitoring requirements shall be reported (in the units specified) on the Vermont reporting form WR-43 or other forms approved by the Secretary.

4. Additional Monitoring

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form WR-43. Such increased frequency shall also be indicated.

PART II

A. MANAGEMENT REQUIREMENTS

1. Facility Modification / Change in Discharge:

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and/or criminal penalties as provided for in Section 1274 and 1275 of the Vermont Water Pollution Control Act. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new permit application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

2. Noncompliance Notification

In the event the permittee is unable to comply with any of the conditions of this permit due, among other reasons, to:

- a. breakdown or maintenance of waste treatment equipment (biological and physical-chemical systems including, but not limited to, all pipes, transfer pumps, compressors, collection ponds or tanks for the segregation of treated or untreated wastes, ion exchange columns, or carbon absorption units),

- b. accidents caused by human error or negligence, or
- c. other causes such as acts of nature,

the permittee shall notify the Secretary within 24 hours of becoming aware of such condition or by the next business day and shall provide the Secretary with the following information, in writing, within five (5) days:

- i. cause of non-compliance
- ii. a description of the non-complying discharge including its impact upon the receiving water;
- iii. anticipated time the condition of non-compliance is expected to continue or, if such condition has been corrected, the duration of the period of non-compliance;
- iv. steps taken by the permittee to reduce and eliminate the non-complying discharge; and
- v. steps to be taken by the permittee to prevent recurrence of the condition of non-compliance.

3. Operation and Maintenance

All waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with the following:

- a. The permittee shall, at all times, maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and testing functions required to insure compliance with the conditions of this permit; and

4. Quality Control

The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at regular intervals to ensure accuracy of measurements, or shall ensure that both activities will be conducted.

The permittee shall keep records of these activities and shall provide such records upon request of the Secretary.

The permittee shall demonstrate the accuracy of the flow measurement device monthly and report the results on the monthly report forms. The acceptable limit of error is $\pm 10\%$.

The permittee shall analyze any additional samples as may be required by the Agency of Natural Resources to ensure analytical quality control.

5. Bypass

The diversion or bypass of facilities, necessary to maintain compliance with the terms and conditions of this permit, is prohibited, except where authorized under terms and conditions of an emergency pollution permit issued pursuant to 10 V.S.A. Section 1268.

6. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any adverse impact to waters of the State resulting from non-compliance with any condition specified in this permit, including accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, and shall be submitted to Department representatives upon request. This period shall be extended during the course of unresolved litigation regarding the discharge of pollutants or when requested by the Secretary.

8. Solids Management

Collected screenings, sludges, and other solids removed in the course of treatment and control of wastewaters shall be stored, treated and disposed of in accord with 10 V.S.A., Chapter 159 and with the terms and conditions of any certification, interim or final, transitional operation authorization or order issued pursuant to 10 V.S.A., Chapter 159 that is in effect on the effective date of this permit or is issued during the term of this permit.

9. Emergency Pollution Permits

Maintenance activities, or emergencies resulting from equipment failure or malfunction, including power outages, which result in an effluent which exceeds the effluent limitations specified herein, shall be considered a violation of the conditions of this permit, unless the permittee immediately applies for, and obtains, an emergency pollution permit under the provisions of 10 V.S.A., Chapter 47, Section

1268. The permittee shall notify the Department of the emergency situation by the next working day.

10 V.S.A., Chapter 47, Section 1268 reads as follows:

"When a discharge permit holder finds that pollution abatement facilities require repairs, replacement or other corrective action in order for them to continue to meet standards specified in the permit, he may apply in the manner specified by the secretary for an emergency pollution permit for a term sufficient to effect repairs, replacements or other corrective action. The permit may be issued without prior public notice if the nature of the emergency will not provide sufficient time to give notice; provided that the secretary shall give public notice as soon as possible but in any event no later than five days after the effective date of the emergency pollution permit. No emergency pollution permit shall be issued unless the applicant certifies and the secretary finds that:

- (1) there is no present, reasonable alternative means of disposing of the waste other than by discharging it into the waters of the state during the limited period of time of the emergency;
- (2) the denial of an emergency pollution permit would work an extreme hardship upon the applicant;
- (3) the granting of an emergency pollution permit will result in some public benefit;
- (4) the discharge will not be unreasonably harmful to the quality of the receiving waters;
- (5) the cause or reason for the emergency is not due to wilful or intended acts or omissions of the applicant."

Application shall be made to the Secretary of the Agency of Natural Resources, Department of Environmental Conservation, 103 South Main Street, Waterbury, Vermont 05671-0405.

10. Power Failure

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. Provide an alternative power source sufficient to operate the wastewater control facilities, or if such alternative power source is not in existence,
- b. Halt, reduce, or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

B. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the Secretary or authorized representative, upon the presentation of proper credentials:

- a. to enter upon the permittee's premises in which an effluent source or any records required to be kept under terms and conditions of the permit are located;
- b. to have access to and copy any records required to be kept under the terms and conditions of the permit;
- c. to inspect any monitoring equipment or method required in the permit; or
- d. to sample any discharge of pollutants.

2. Transfer of Ownership or Control

This permit is not transferable without prior written approval of the Secretary. All application and operating fees must be paid in full prior to transfer of this permit. In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall provide a copy of this permit to the succeeding owner or controller and shall send written notification of the change in ownership or control to the Secretary. The permittee shall also inform the prospective owner or operator of their responsibility to make an application for transfer of this permit. This application must include as a minimum; a written statement from the prospective owner or operator certifying:

- a. The conditions of the operation that contribute to, or affect, the discharge will not be materially different under the new ownership.
- b. The prospective owner or operator has read and is familiar with the terms of the permit and agrees to comply with all terms and conditions of the permit.
- c. The prospective owner or operator has adequate funding to operate and maintain the treatment system and remain in compliance with the terms and conditions of the permit.
- d. The date of the sale or transfer.

The Department may require additional information dependent upon the current status of the facility operation, maintenance, and permit compliance.

3. Confidentiality

Pursuant to 10 V.S.A. 1259(b):

“Any records, reports or information obtained under this permit program shall be available to the public for inspection and copying. However, upon a showing satisfactory to the secretary that any records, reports or information or part thereof, other than effluent data, would, if made public, divulge methods or processes entitled to protection as trade secrets, the secretary shall treat and protect those records, reports or information as confidential. Any records, reports or information accorded confidential treatment will be disclosed to authorized representatives of the state and the United States when relevant to any proceedings under this chapter.”

4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. violation of any terms or conditions of this permit;
- b. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

5. Toxic Effluent Standards

That if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under section 307(a) of the Federal Act for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the secretary shall revise or modify the permit in accordance with the toxic effluent standard or prohibition and so notify the permittee.

6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under 10 V.S.A. §1281.

7. Civil and Criminal Liability

Except as provided in, "Bypass" (Part II, paragraph A.5.), "Power Failure" (Part II, paragraph A.10.), and "Emergency Pollution Permits" (Part II, paragraph A.9.), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Civil penalties, as authorized under 10 V.S.A. §1274 and 10 V.S.A. §8010, shall not exceed \$10,000 a day for each day of violation. Criminal penalties, as authorized under 10 V.S.A. §1275, shall not exceed \$25,000 for each day of violation, imprisonment for up to six months, or both.

8. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

9. Property Rights

Issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

10. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

11. Authority

This permit is issued under authority of 10 V.S.A. §1259 which states that: "No person shall discharge any waste, substance, or material into waters of the State, nor shall any person discharge any waste, substance, or material into an injection well or discharge into a publicly owned treatment works any waste which interferes with, passes through without treatment, or is otherwise incompatible with those works or would have a substantial adverse effect on those works or on water quality, without first obtaining a permit for that discharge from the Secretary", and under the authority of Section 402 of the Clean Water Act, as amended.

PART III**A. OTHER REQUIREMENTS**

This permit shall be modified, suspended or revoked to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b) (2) (C), and (D), 304(b) (2), and 307 (a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit.

The permit as modified under this paragraph shall also contain any other requirements of the Vermont Water Pollution Control Act then applicable.

B. DEFINITIONS

For purposes of this permit, the following definitions shall apply.

The Act - The Vermont Water Pollution Control Act, 10 V.S.A. Chapter 47

Annual Average - The highest allowable average of daily discharges calculated as the sum of all daily discharges (mg/l, lbs or gallons) measured during a calendar year divided by the number of daily discharges measured during that year.

Average - The arithmetic means of values taken at the frequency required for each parameter over the specified period.

The Clean Water Act - The federal Clean Water Act, as amended.

Composite Sample - A sample consisting of a minimum of one grab sample per hour collected during a 24-hour period (or lesser period as specified in the section on Monitoring and Reporting) and combined proportionally to flow over that same time period.

Daily Discharge - The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.

For pollutants with limitation expressed in pounds the daily discharge is calculated as the total pounds of pollutants discharged over the day.

For pollutants with limitations expressed in mg/l the daily discharge is calculated as the average measurement of the pollutant over the day.

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

Incompatible Substance (Pollutant) - Any waste being discharged into the treatment works which interferes with, passes through without treatment, or is otherwise incompatible with said works or would have a substantial adverse effect on these works or on water quality. This includes all pollutants required to be regulated under the Federal Clean Water Act.

Instantaneous Maximum - A value not to be exceeded in any grab sample.

Major Contributing Industry - One that: (1) has a flow of 50,000 gallons or more per average work day; (2) has a flow greater than five percent of the flow carried by the municipal system receiving the waste; (3) has in its wastes a toxic pollutant in toxic amounts as defined in standards issued under Section 307(a) of the Act; or (4) has a significant impact, either singly or in combination with other contributing industries, on a publicly owned treatment works or on the quality of effluent from that treatment works.

Maximum Day (maximum daily discharge limitation) - The highest allowable "daily discharge" (mg/l, lbs or gallons).

Mean - The mean value is the arithmetic mean.

Monthly Average - (Average monthly discharge limitation) - The highest allowable average of daily discharges (mg/l, lbs or gallons) over a calendar month, calculated as the sum of all daily discharges (mg/l, lbs or gallons) measured during a calendar month divided by the number of daily discharges measured during that month.

NPDES - The National Pollutant Discharge Elimination System.

Secretary - The Secretary of the Agency of Natural Resources

State Certifying Agency Agency of Natural Resources
 Department of Environmental Conservation
 Wastewater Management Division
 103 South Main Street
 Waterbury, Vermont 05671-0405

Weekly Average - (Average weekly discharge limitation) - The highest allowable average of daily discharges (mg/l, lbs or gallons) over a calendar week, calculated as the sum of all daily discharges (mg/l, lbs or gallons) measured during a calendar week divided by the number of daily discharges measured during that week.

07/2000

Attachment A

Metals (total recoverable), cyanide and total phenols:

Antimony
Arsenic
Beryllium
Cadmium
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Zinc
Cyanide
Total phenolic compounds

Volatile organic compounds:

acrolein
acrylonitrile
benzene
bromoform
carbon tetrachloride
chlorobenzene
chlorodibromomethane
chloroethane
2-chloroethylvinyl ether
chloroform
dichlorobromomethane
1,1-dichloroethane
1,2-dichloroethane
Trans-1,2-dichloroethylene
1,1-dichloroethylene
1,2-dichloropropane
1,3-dichloropropylene
ethylbenzene
methyl bromide
methyl chloride
methylene chloride
1,1,2,2-tetrachloroethane
tetrachloroethylene
toluene
1,1,1-trichloroethane
1,1,2-trichloroethane
trichloroethylene
vinyl chloride

Acid-extractable compounds:

p-chloro-m-cresol
2-chlorophenol
2,4-dichlorophenol
2,4-dimethylphenol
4,6-dinitro-o-cresol

2,4-dinitrophenol
2-nitrophenol
4-nitrophenol
pentachlorophenol
phenol
2,4,6-trichlorophenol

Base-neutral compounds:

acenaphthene
acenaphthylene
anthracene
benzidine
benzo(a)anthracene
benzo(a)pyrene
3,4-benzofluoranthene
benzo(ghi)perylene
benzo(k)fluoranthene
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
bis(2-chloroisopropyl)ether
bis(2-ethylhexyl)phthalate
4-bromophenyl phenyl ether
butyl benzyl phthalate
2-chloronaphthalene
4-chlorophenyl phenyl ether
chrysene
di-n-butyl phthalate
di-n-octyl phthalate
dibenzo(a,h)anthracene
1,2-dichlorobenzene
1,3-dichlorobenzene
1,4-dichlorobenzene
3,3'-dichlorobenzidine
diethyl phthalate
dimethyl phthalate
2,4-dinitrotoluene
2,6-dinitrotoluene
1,2-diphenylhydrazine
fluoranthene
fluorene
hexachlorobenzene
hexachlorobutadiene
hexachlorocyclo-pentadiene
hexachloroethane
indeno(1,2,3-cd)pyrene
isophorone
naphthalene
nitrobenzene
N-nitrosodi-n-propylamine
N-nitrosodimethylamine
N-nitrosodiphenylamine
phenanthrene
pyrene
1,2,4-trichlorobenzene

AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WASTEWATER MANAGEMENT DIVISION
103 SOUTH MAIN STREET
WATERBURY, VERMONT 05671-0405

FACT SHEET

May 2007

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

FILE NO.: 01-11

PROJECT ID NO.: RU95-0229

NPDES NO: VT00001371

PERMIT NO.: 3-1521

NAME AND ADDRESS OF APPLICANT:

Monahan SFI, LLC
3046 Case Street
Middlebury, VT 05753

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

3046 Case Street
Middlebury, VT

RECEIVING WATERS AND CLASSIFICATION: Muddy Branch: Class B. Class B waters are suitable for bathing and recreation; irrigation and agricultural uses; good fish habitat; good aesthetic value; acceptable of public water supply with filtration and disinfection.

I. Proposed Action, Type of Facility, and Discharge Location

The above named applicant has applied to the Vermont Department of Environmental Conservation for a permit to discharge into the designated receiving water. The facility discharges noncontact cooling water and quench (contact cooling) water from their plastic filament manufacturing process.

II. Description of Discharge

This permit authorizes the discharge of 0.250 MGD, daily maximum, of cooling water and quench water. A quantitative description of the discharge in terms of significant effluent parameters is presented in section IV. below.

III. Limitations and Conditions

The effluent limitations of the permit, the monitoring requirements, and any implementation schedule (if required), may be found on the following pages of the permit:

Effluent Limitations: Page 2

Monitoring Requirements: Page 2

IV. Permit Basis and Explanation of Effluent Limitation Derivation

History & Summary

Monahan SFI, LLC owns and operates a plastic extrusion manufacturing complex located on Route 116, Middlebury, VT. Monahan SFI, LLC purchased this facility from the previous owner of the facility, New Speciality Filaments, in January 2007. New Speciality Filaments held a permit for this discharge from this manufacturing process.

The facility extracts water from Dow Pond and uses it as non-contact cooling and quench water (contact cooling water) in their plastic filament manufacturing process. Municipal water is occasionally used in the quench process during the summer months when the water temperature in Dow Pond increases to provide for more effective cooling.

The non-contact cooling water and quench water from various processes within the facility combine into a single pipe and are discharged to Muddy Branch. The outfall is located in a culvert which conveys the flow from Dow Pond under Route 116.

Based on the industrial process used at this facility, the discharge is regulated by 40 CFR Part 463 "Plastics Molding and Forming Point Source Category", and in addition, must comply with the Vermont Water Quality Standards.

Effluent Limitations

Discharge Point S/N 001

Flow

The permit contains a flow limitation of 0.250 MGD, total daily maximum. This limitation is based on the estimated volume of the combined discharge of non-contact cooling water and quench water from the manufacturing processes. Daily flow monitoring is required.

Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS)

The BOD₅ limitation is 54.2 lbs/day, daily maximum, and is based on 40 CFR Part 463, Subpart A. The TSS limitation is 39.6 lbs/day, daily maximum, and is based on 40 CFR Part 463 Subpart A. BOD₅ and TSS sampling is required once per month.

Oil and Grease

The Oil and Grease limitation is 60.4 lbs/day, daily maximum and is based on 40 CFR Part 463, Subpart A. Oil and Grease sampling is required once per month.

Temperature

Muddy Branch is classified as a cold water fishery under Section 3-01.1.b of the Vermont Water Quality Standards (VWQS). Therefore, the discharge cannot raise the temperature of the receiving water by more than 1° F. Given the volume of the discharge and the size of the receiving water it is unlikely that the discharge could consistently meet this requirement. Therefore per Sections 2-04 and 3-01.B.1.d of the VWQS, a mixing zone has been established in Muddy Branch and the permit requires that the temperature of the receiving water not be raised by more than 1° F at a point 200 feet downstream from the point of discharge. Temperature monitoring is required once per week.

In establishing this mixing zone, the Agency finds that a mixing zone for the dispersion or dilution of thermally enhanced wastewater for this discharge will not cause a public health risk, constitute a barrier to the passage or movement of fish or prevent the full support of aquatic biota, wildlife, and aquatic habitat uses outside the mixing zone. The establishment of the mixing zone will not kill organisms passing through the mixing zone and the uses of the water will continue to be maintained and protected. Additionally, the mixing zone will be free of concentrations of materials that could settle and form objectionable deposits and it will be free of floating debris, oil, scum, and other material in concentrations that could cause nuisances. Also the mixing zone will be free of substances that will produce objectionable color, odor, taste, or turbidity and it will be free of substances that could produce undesirable aquatic life or dominance of nuisance species.

pH

The permit contains a pH limitation of 6.5 to 8.5 SU. This limitation is unchanged from the permit that regulated the previous facility. This limitation is based on Section 3-01.B.9 of the Vermont Water Quality Standards. Sampling of pH is required once per week.

Organics

EPA regulations and guidance indicate that some organic compounds are sometimes detected in insignificant quantities in the discharges from this type of industrial process. Specifically, Bis(2-ethylhexyl) phthalate, Di-n-butyl phthalate, and Dimethyl phthalate are sometimes found in very low concentrations in discharges from this type of industrial process. Therefore the permit contains a “monitor only” requirement for these compounds. Samples must be collected during the months of September and March and the results included on the Discharge Monitoring Report.

Total Residual Chlorine

The facility uses municipal water to supplement its cooling process in the summer when the water temperature of Dow Pond increases to a point where it cannot efficiently provide cooling in the manufacturing process. Municipal water typically has a chlorine concentration of 1.0 mg/l. The Vermont Water Quality Standards contain a 0.019 mg/l (chronic) and 0.011 mg/l (acute) instream chlorine concentration to prevent toxicity to fish. Based on the volume of the discharge and the flow of Muddy Branch, and considering the discharge enters the receiving water in the culvert under Route 116 and flows the culvert before becoming a natural stream channel, a 0.1 mg/l Total Residual Chlorine limitation has been established. Total Residual Chlorine monitoring is required once per day when municipal water is being used in the manufacturing process.

Silver

The facility uses an anti-microbial compound containing silver which is applied to some of their products. The compound is added to the plastic during the extrusion process. Due to the potential for silver to be present in the discharge and the potential aquatic toxicity of silver, the permit contains a “monitor only” requirement for total silver. Samples must be collected during the months of September and March and the results included on the Discharge Monitoring Report.

VI. Procedures for Formulation of Final Determinations

The public comment period for receiving comments on this draft permit is from May 21, 2007

through June 20, 2007. During this time interested persons may submit their written views on the draft permit. All written comments will be retained by the Department and considered in the formulation of the final determination to issue, deny or modify the draft permit. The period of comment may be extended at the discretion of the Department.

Written comments should be sent to:

Vermont Agency of Natural Resources
Department of Environmental Conservation
Wastewater Management Division - Sewing Building
103 South Main Street
Waterbury, VT 05671-0405

Comments may also be faxed to: 802-241-2596.

Any interested person or groups of persons may request or petition for a public hearing with respect to this draft permit. Any such request or petition for a public hearing shall be filed within the public comment period described above and shall indicate the interest of the party filing such request and the reasons why a hearing is warranted.

The Department will hold a hearing if there is significant public interest in holding such a hearing. Any public hearing brought in response to such a request or petition will be held in the geographical area of the draft discharge or other appropriate area, at the discretion of the Department and may, as appropriate, consider related groups of draft permits. Any person may submit oral or written statements and data concerning the draft permit at the public hearing. The Department may establish reasonable limits on the time allowed for oral statements and may require the submission of statements in writing. All statements, comments, and data presented at the public hearing will be retained by the Department and considered in the formulation of the final determination to issue, deny, or modify the draft permit.

The complete application, draft permit, and other information are on file and may be inspected at the VTDEC, Wastewater Management Division, Waterbury Office. Copies will be made at a cost based on the previous Secretary of State Official Fee Schedule for Copying Public Records from 8:00 am to 4:30 pm, Monday through Friday.

The draft permit and this fact sheet may also be viewed on the Wastewater Management Division's web site at www.anr.state.vt.us/dec/ww/wwmd.cfm.