

**AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
1 NATIONAL LIFE DRIVE, MAIN 2
MONTPELIER, VT 05620-3521**

**INDIRECT DISCHARGE PERMIT
AMENDMENT**

File Code: WIN-9-0043

Permit No.: ID-9-0043-1
PIN: BR95-0213

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

Agri-Mark, Inc. (dba. Cabot Creamery)
193 Home Farm Way
Waitsfield, Vermont 05673

is authorized to indirectly discharge two types of non-sewage waste, polished permeate and dairy processing wastewater, from the permittee's dairy manufacturing facility located in Cabot, Vermont to groundwater and indirectly to numerous receiving streams.

This indirect discharge permit authorizes particular methods of indirect discharge for each non-sewage waste. Part I of this permit authorizes the discharge of polished permeate via a sprayfield onto 14.23 acres owned by the permittee to groundwater and indirectly into the Winooski River. Part II of this permit authorizes the land application of dairy processing wastewater to the authorized fields listed in Attachment A-2, which discharge to groundwater and indirectly into the receiving streams identified in Attachment A-1. Part II also authorizes disposal of dairy processing waste via the approved manure pits listed in Attachment B, and via application to hayfields pursuant to the specifications included in Attachment C. Part III of this permit contains general conditions and requirements which apply to the indirect discharge of both polished permeate and dairy processing wastewater.

This permit amendment adds two fields, expands two other approved fields, and adds one manure pit to the land application program. The fields are located in Cabot, Hardwick and Stowe, Vermont. The manure pit is located in Danville, Vermont.

PART I: INDIRECT DISCHARGE OF POLISHED PERMEATE

SECTION A - "ADMINISTRATION"

A1. Authorization for Indirect Discharge:

Expiration Date	June 30, 2020
Type of Waste	Polished Permeate
Disposal System	Polished Permeate Sprayfield (14.23 acres, 8.29 wetted acres)
Design Flow	35,000 gpd annual average
Town	Cabot
Receiving Stream	Winooski River
Drainage Area	13.99 square miles
Low Median Monthly Flow (LMMF)	6.1 cfs (3,942,259 gpd)
Spray Disposal Capacity	455,217 gallons/7 days 2" per 7-day period (April through November only)
Dilution Ratio (stream flow to effluent, based on 455,217 gallons/7 days)	60 to 1 at LMMF

This Indirect Discharge Permit authorizes, subject to the conditions established herein, the discharge of polished permeate via a sprayfield onto 14.23 acres owned by the permittee to groundwater and indirectly into the Winooski River. The conditions of this approval are detailed below in the System Construction, System Operation, and Monitoring sections of Part I of this permit.

A2. Schedule Summary:

The following is a summary of some of the key compliance dates. It is provided as a courtesy only and shall not be construed to create additional or independent conditions of this permit. Any conflicts between this summary and other provisions of this permit shall be resolved by applying the other provisions without reference to this summary.

<u>Condition # & Description</u>	<u>Schedule</u>
D5(A). Have a Vermont Registered Professional Engineer complete an inspection of permeate collection and disposal system	Annually in April
D5(B). Submit Annual Inspection Report	Annually by July 1st
D5(C). Submit schedule for implementing engineer's recommendations	Annually by July 1st
E2. Collect and analyze polished permeate samples discharged to ponds	Monthly, June and September
E3. Record depth of polished permeate in storage ponds and report volume	Weekly
E4(A). Collect and analyze polished permeate samples sprayed	Monthly, April - November
E4(B). Record volume of polished permeate sprayed	Daily, April - November
E5(A). Collect and analyze groundwater samples for sprayfield	Monthly, May, August and September
E5(B). Measure and record the depths to groundwater in monitoring wells for sprayfield	Within 24 hours prior to spraying
E6(A). Collect and analyze groundwater monitoring samples around ponds	Upon request
E6(B). Measure and record the depths to groundwater in monitoring wells around ponds	Upon request

A2. Schedule Summary (continued):

<u>Condition # & Description</u>	<u>Schedule</u>
E7(A). Submit revised QA/QC Plan for Winooski River sampling	By June 30, 2016
E7(B). Collect and analyze Winooski River samples	Monthly, August and September
E7(C). Perform biological site assessment of Winooski River	By August 1, 2016
E8. Submit water quality evaluation of polished permeate disposal	By March 31, 2020
E9. Submit all monitoring results and measurements	By the 15th day of the following month or second month following sampling

A3. Effective Date:

This permit amendment becomes effective on the date of signing.

A4. Indirect Discharge Rules and Other Applicable Standards:

This indirect discharge was originally reviewed and qualified for an Indirect Discharge Permit in accordance with the Site Specific Compliance Test (Section 14-B-201) in the Indirect Discharge Rules, effective January 29, 2000, and the Ground Water Protection Rule and Strategy, effective September 29, 1988 [Section 12-503 (3)(b)(v)].

For the 2015 permit renewal, the permittee applied under Section 14-406(d) of the Indirect Discharge Rules, effective April 30, 2003. This indirect discharge is in compliance with the Groundwater Protection Rule and Strategy, effective February 14, 2005, and presumed to be in compliance with the Vermont Water Quality Standards, effective October 30, 2014.

A5. Modifications and Additions to System:

Before modifications or adding to the treatment and/or spray disposal system, the permittee must submit plans and an application for an amendment to this permit to the Secretary for review and approval. These plans and application must be approved and permitted by the Secretary before any of the modifications or additions are to be made.

SECTION B "DESCRIPTION OF INDIRECT DISCHARGE"

B1. Location of Indirect Discharge:

The indirect discharge from the polished permeate sprayfield is located on the Winooski River in the town of Cabot, Vermont, with a drainage area of 13.99 square miles at the point of compliance. The indirect discharge can be located on the USGS, Cabot, Vermont 7.5' quadrangle map at Latitude N 44° 24' and Longitude W 72° 19'.

B2. Nature of Indirect Discharge:

Polished permeate is a non-sewage, non-pathogenic wastewater which is generated during the manufacturing of cheese products. Polished permeate is the water fraction remaining after the whey is concentrated to approximately 30% solids by two reverse osmosis (RO) processes. For example, 100 gallons of whey at 6.2% solids would result in 21 gallons of whey concentrate at 30% solids and 79 gallons of permeate after the first RO process. The second RO process further concentrates the 79 gallons of permeate down to 71 gallons of permeate and 8 gallons of whey concentrate, resulting in 29 gallons of whey and 71 gallons of polished permeate. Cottage cheese rinse water is also processed through RO equipment. For every 100 gallons of rinse water processed, about 10 gallons of concentrated solids and 90 gallons of polished permeate is generated. The whey concentrate is shipped to the Agri-Mark Middlebury facility for other uses.

From the Cabot Creamery facility, polished permeate is pumped to three storage ponds located on the permittee's property. The ponds have a combined storage capacity of 6.1 million gallons. The polished permeate is sprayed April through November and stored in the ponds December through March. The total wetted area for the sprayfield is 8.29 acres with a design maximum loading rate of 2 inches per 7-day period (equivalent to 455,217 gallons per 7-day period). The polished permeate sprayfield therefore has an average approved spray capacity of 65,031 gpd April through November.

The annual average daily flow of polished permeate generated at the facility is approximately 28,700 gpd, for a total annual volume of about 7,000,000 gallons. The average annual precipitation adds an additional 1,040,250 gallons, taking into account evaporation, for an annual total to be discharged of 8,040,250 gallons. This total sprayed from April through November (244 days) requires a daily average spray capacity of nearly 33,000 gpd. Sprayed polished permeate discharges to groundwater and indirectly to the Winooski River.

SECTION C "SYSTEM CONSTRUCTION"

See the Fact Sheet dated July, 2005 for a list of the approved plans for the sprayfield system.

SECTION D "SYSTEM OPERATION"

D1. General:

The polished permeate sprayfield system shall be operated at all times in a manner that will (1) not result in the direct discharge of polished permeate into the waters of the State; and (2) not result in a violation of the Vermont Water Quality Standards, effective October 30, 2014, or the Groundwater Protection Rule and Strategy, effective February 14, 2005.

D2. Limits on Spray Disposal:

This permit authorizes the discharge of polished permeate which is generated at the facility at an annual average rate up of to 35,000 gallons per day. The polished permeate sprayfield shall be operated at all times in accordance with the following limits:

- A. No spraying shall be conducted when the groundwater table is closer than one (1) foot to the ground surface in the sprayfield as determined from the groundwater level in the field monitoring wells.
- B. No spraying shall be conducted if there is any surface runoff occurring within the sprayfield.
- C. The total polished permeate applied to the sprayfield shall not exceed 2.0 inches on the wetted area of the field in any seven (7) day period (equivalent to 455,217 gallons per 7-day period).
- D. The maximum hourly rate of polished permeate application shall not exceed 0.25 inches per hour.
- E. There shall be a minimum of a 12-hour rest period between spray applications for any spray line.
- F. Spraying of polished permeate shall only occur from April 1st through November 30th.

D3. Operator Certification:

See Condition K7.

D4. Reporting of Failures:

The permittee shall immediately report any failure of the polished permeate storage and spray disposal system to the Secretary first by telephone within 24 hours of the failure (by the next working day) and then in writing within 5 days of the failure. The written notice shall include a discussion of the actions taken or to be taken to correct the failure.

D5. Annual Inspection, Report and Implementation Schedule:

A. Annual Inspection:

Annually during the month of April, the permittee shall engage a professional engineer registered in the State of Vermont to make a thorough inspection, evaluation, and report of the complete collection, treatment and sprayfield system. The engineer's inspection shall include, but not be limited to the following:

1. verifying the proper operation of all pumps, alarms and controls;
2. walking around each storage pond and verifying the integrity of each berm, noting any signs of leakage from any of the ponds;
3. walking each spray lateral in the sprayfield and checking for the proper operation of the spray disposal system, noting any repairs needed and any areas of erosion or concentrated surface runoff;
4. checking the calibration of the effluent flow meters; and
5. noting any necessary repairs, or maintenance that needs to be performed.

B. Annual Inspection Report:

Annually, by July 1st, the permittee shall have a professional engineer submit an annual inspection report including the following items:

1. a complete discussion of the items inspected and the results of the inspection; and
2. a discussion of the recommended repairs and maintenance required.

C. Implementation Schedule:

Annually, by July 1st, the permittee shall notify the Secretary in writing stating how the engineer's recommendations are to be implemented, including a schedule for the required repairs and maintenance.

D6. System Operation and Maintenance:

The polished permeate collection, storage, treatment, and spray disposal system shall be operated and maintained at all times in a manner satisfactory to the Secretary and not to cause health hazards, contamination of drinking water supplies, groundwater and/or surface water.

D7. Discharge Restrictions:

The permittee shall not allow any person to discharge or cause to be discharged anything other than polished permeate to the storage ponds and sprayfield.

D8. Storage Ponds:

The permittee shall maintain a minimum of two (2) feet of freeboard in each storage pond. The permittee shall immediately report any violation of the required two feet of freeboard to the Secretary.

SECTION E "MONITORING"

E1. Quality Control/Quality Assurance Plan (QA/QC Plan):

The permittee shall perform sampling and analysis for the disposal of polished permeate in accordance with the QA/QC Plan dated April 2015, as revised and approved, and the conditions of this permit.

E2. Polished Permeate Monitoring:

The polished permeate discharged to the storage ponds shall be sampled monthly and analyzed as follows:

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Flow	gpd	daily total	Daily
Total Suspended Solids (TSS)	mg/L	grab	June and September
Chloride (Cl-)	mg/L	grab	June and September
Total Phosphorus (TP)	mg/L	grab	June and September
Nitrate-Nitrite Nitrogen	mg/L	grab	June and September
pH	S.U.	grab	June and September

 Samples shall be taken before the polished permeate is discharged to the storage ponds.

E3. Permeate Storage Pond Volume:

The water level in each storage pond shall be measured and recorded once per week and the volume of each pond determined.

E4. Polished Permeate Spray Monitoring:

A. Effluent Quality:

Beginning in April, the polished permeate sprayed shall be sampled and analyzed during spraying operations, as follows:

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Total Suspended Solids (TSS)	mg/L	grab	Monthly, April - November
Chloride (Cl-)	mg/L	grab	Monthly, April - November
Total Phosphorus (TP)	mg/L	grab	Monthly, April - November
Total Dissolved Phosphorus (TDP)	mg/L	grab	Monthly, April - November
Nitrate-Nitrite Nitrogen	mg/L	grab	Monthly, April - November
pH	S.U.	grab	Monthly, April - November

 Samples shall be taken from sampling taps installed in the pipe from the pond being utilized to the sprayfield.

B. Volume of Polished Permeate:

The volume of polished permeate sprayed and the period of spray for each spray line shall be measured and recorded daily. The maximum hourly rate of spray shall also be measured and recorded daily.

E5. Groundwater Monitoring - Sprayfield:

A. Chemical:

The groundwater in all the monitoring wells upgradient and downgradient of the sprayfield shall be sampled monthly and analyzed in accordance with the April 2015 QA/QC Plan, as revised, and the following:

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Total Dissolved Solids	mg/L	grab	May, August and September
Chloride (Cl-)	mg/L	grab	May, August and September
Total Dissolved Phosphorus (TDP)	mg/L	grab	May, August and September
pH	S.U.	grab	May, August and September
Nitrite-Nitrate Nitrogen	mg/L	grab	May, August and September
Depth to groundwater (below ground surface)	inches	instant.	At time of sampling

 Because of the changing water table conditions the samples from the groundwater monitoring wells might not be collected on the same day or in the same week. If a monitoring well has water at any time during the sampling months then a sample is required to be collected and analyzed.

B. Groundwater Levels:

The depth to groundwater (below ground surface) shall be measured and recorded at least weekly in all the in-field observation wells and the three downgradient monitoring wells. If the groundwater table is within three (3) feet of ground surface in any of the observation wells, groundwater levels shall be measured and recorded each day that spraying occurs, prior to spraying. No spraying shall be conducted when the groundwater table is closer than one (1) foot to the ground surface in the sprayfield as based on these measurements. Dry wells shall be recorded as "no water to depth of well".

E6. Groundwater Monitoring - Storage Ponds:

A. Chemical:

The April 2015 QA/QC Plan includes the location of one groundwater monitoring well upgradient, one groundwater monitoring well in each berm separating the three storage ponds, and three groundwater monitoring wells downgradient of the polished permeate storage ponds. Upon request of the Secretary, the groundwater in the monitoring wells shall be sampled and analyzed for the parameters indicated in Condition E4(A) above.

Because of the changing water table conditions the samples from the groundwater monitoring wells might not be collected on the same day or in the same week. If a monitoring well has water at any time during the period a sample is requested, then a sample is required to be collected and analyzed.

B. Groundwater Levels:

Upon request of the Secretary, the depth to groundwater (below ground surface) shall be measured and recorded in all the monitoring wells indicated in Condition E6(A) above. Dry wells shall be recorded as "no water to depth of well".

E7. Receiving Stream Monitoring:

A. Sampling Plan:

By June 30, 2016, the permittee shall submit a revised QA/QC Plan to the Secretary for review and approval for the collection and analysis of water quality samples from the Winooski River upstream and downstream of the indirect discharge from the sprayfield and Field 40A in accordance with the requirements of Condition E7(B).

The revised QA/QC Plan shall include provisions for a biological site assessment of the Winooski River upstream and downstream of the indirect discharge from the sprayfield and Field 40A by qualified aquatic biologist. The revised QA/QC Plan shall also include a biomonitoring plan for sampling the aquatic biota of the Winooski River if it determined from the biological evaluation that biomonitoring is warranted. The biological sampling plan shall be in accordance with the requirements of Subchapter 22 of the Indirect Discharge Rules, effective April 30, 2003.

E7. Receiving Stream Monitoring (continued):

B. Chemical:

The Winooski River shall be sampled monthly at locations upstream and downstream of the indirect discharge from the sprayfield and Field 40A in accordance with an approved QA/QC Plan and the following:

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Total Phosphorus (TP)	mg/L	grab	August and September
Total Dissolved Phosphorus (TDP)	mg/L	grab	August and September
Chloride (Cl-)	mg/L	grab	August and September
Sodium (Na+)	mg/L	grab	August and September
Total Kjeldahl Nitrogen (TKN)	mg/L	grab	August and September
Ammonia Nitrogen (NH ₃)	mg/L	grab	August and September
Nitrite-Nitrate Nitrogen	mg/L	grab	August and September
pH	S.U.	grab	August and September
Temperature	Degrees	grab	August and September
Total Alkalinity as CaCO ₃	mg/L	grab	August and September
Dissolved Oxygen	mg/L	grab	August and September
Turbidity	N.T.U.	grab	August and September
Conductivity	S/m	grab	August and September

The permittee shall not sample the receiving stream within 24 hours of any storm event affecting the stream's watershed.

E7. Receiving Stream Monitoring (continued):

C. Biological:

By August 1, 2016, the permittee shall have a qualified aquatic biologist conduct a biological site assessment of the Winooski River upstream and downstream of the indirect discharge from the sprayfield and Field 40A. If the Secretary determines that biological sampling is warranted, the permittee shall have biological sampling performed in August - September 2016 in accordance with an approved QA/QC Plan. The biological results shall be submitted by March 31, 2017.

E8. Water Quality Evaluation:

By March 31, 2020, the permittee shall have a qualified water quality specialist submit a water quality evaluation to the Secretary of all the polished permeate, groundwater and surface water quality data collected during the 2015 – 2019 permit period. Biological site assessment and/or biomonitoring results shall also be included. The report shall summarize what, if any, short or long term impacts there have been on groundwater or surface water quality. The report shall also include a summary of the volume of polished permeate sprayed prior to groundwater and/or surface water sampling.

The water quality evaluation shall indicate whether the discharge of polished permeate is in compliance with the Groundwater Protection Rule and Strategy and the Vermont Water Quality Standards.

E9. Submittal of Monitoring Results:

The daily volumes of polished permeate discharged to the storage ponds, the permeate storage pond levels and volumes, the daily volume of polished permeate sprayed, and the groundwater depth measurements required by Conditions E2 – E6 above shall be submitted to the Secretary by the 15th day of the month following the date of measurement.

The results of all the polished permeate, polished permeate spray, groundwater and surface water sampling required by Conditions E2 – E7 above shall be submitted to the Secretary by the 15th day of the second month following the date of sampling.

PART II: INDIRECT DISCHARGE OF DAIRY PROCESSING WASTEWATER

SECTION F - "ADMINISTRATION"

F1. Authorization for Indirect Discharge:

Expiration Date	June 30, 2020
Type of Waste	Dairy Processing Wastewater
Disposal System	Diffuse land application
Design Flow	150,000 gallons per day
Towns	Albany, Barnet, Barton, Brookfield, Brownington, Cabot, Calais, Craftsbury, Danville, E. Montpelier, Elmore, Glover, Greensboro, Hardwick, Irasburg, Lyndon, Marshfield, Morristown, Peacham, Plainfield, Randolph, St. Johnsbury, Sheffield, Stannard, Stowe, Walden, Wheelock and Wolcott
Drainage Basins	Black, Lamoille, Passumpsic, Stevens, White and Winooski
Receiving Streams	The receiving streams at the point of compliance for the disposal fields are summarized in Attachment A-1.

This Indirect Discharge Permit authorizes, subject to the conditions established herein, the land application of dairy processing wastewater to the authorized fields listed in Attachment A-2, which discharge to groundwater and indirectly into the receiving streams identified in Attachment A-1. It also authorizes disposal of dairy processing waste via the approved manure pits listed in Attachment B, and via application to hayfields pursuant to the specifications included in Attachment C. The conditions of this approval are detailed below in the System Operation and Monitoring sections of Part II of this permit.

F2. Schedule Summary:

The following is a summary of some of the key compliance dates. It is provided as a courtesy only and shall not be construed to create additional or independent conditions of this permit. Any conflicts between this summary and other provisions of this permit shall be resolved by applying the other provisions without reference to this summary.

<u>Condition # & Description</u>	<u>Schedule</u>
I4(A). Have a Vermont Registered Professional Engineer complete an inspection of collection and disposal system	Annually in May
I4(B). Submit Annual Inspection Report	Annually by July 1st
I4(C). Submit schedule for implementing engineer's recommendations	Annually by July 1st
I9. Complete Z-field forms, submit maps	When using a new field
I11. Maintain daily journal or checklists	Daily
I12. Submit reports of all land application activities	By the 15th day of the following month
I13. Submit Annual Report	Annually by Nov. 30th
I15. Submit Alternatives Analysis	By December 31, 2016
I16. Submit Application for Permit Amendment	As specified
J2. Submit revised QA/QC Plan	By June 30, 2016
J3(A) Collect and analyze washwater samples	Monthly, February, May, August and September
J3(B) Record volume of washwater produced and stored	Daily

F2. Schedule Summary (continued):

<u>Condition # & Description</u>	<u>Schedule</u>
J4(A) Collect and analyze groundwater samples	Monthly, May, August, and September
J4(B) Measure and record the depths to groundwater in observation wells	Prior to land application on well-verified fields.
J5(A) Collect and analyze samples from receiving streams	Monthly, August and September
J5(B) Perform biological assessment/monitoring	Upon request
J6. Submit all monitoring results and measurements	By the 15th day of the following month or second month following sampling
J7. Perform and submit soil testing results; Submit field evaluation	By October 31, 2016; By December 31, 2016
J8. Submit water quality evaluation of land application	By March 31, 2020
J9. Perform toxic scan analyses of dairy processing wastewater	December 2016, June 2018 and December 2019

F3. Effective Date:

This permit amendment becomes effective on the date of signing.

F4. Indirect Discharge Rules and Other Applicable Standards:

This indirect discharge was reviewed and qualified for an Indirect Discharge permit in accordance with Section 14-1902(c) of the Indirect Discharge Rules, effective April 30, 2003, the Vermont Guidelines for Land Application of Dairy Processing Wastes dated August 14, 1990, and Sections 12-503 (2) & (3) of the Groundwater Protection Rule and Strategy, effective February 14, 2005. This indirect discharge is also in compliance with the Vermont Water Quality Standards, effective October 30, 2014.

F5. Additions and Modifications to Attachments A-1, A-2, B, and C:

The permittee shall add or remove disposal fields and manure pits from the authorized lists in Attachments A-1, A-2, B or C under the following provisions:

- A. The permittee shall maintain an average of 120% of the actual acreage necessary for disposal of dairy processing wastewater in each season (see Part II, Condition I3).
- B. The permittee may add fields and manure pits to the disposal program by first applying for an administrative amendment of this permit from the Secretary. Fields and manure pits shall be evaluated in accordance with the Vermont Guidelines for Land Application of Dairy Processing Wastes.
- C. Fields which had been previously listed as approved disposal locations but were removed subsequently may be re-instated through application for an administrative amendment of this permit. For those fields, the permittee must reference the previous information submitted in the application and verify that the previously submitted information is still accurate. Any changes which have occurred must be documented in the application.
- D. Fields that exhibit clogging conditions or excessive leaching of cations to groundwater shall be removed from the disposal program and reported as such in accordance with Condition I13.

SECTION G "INDIRECT DISCHARGE"

G1. Location of Indirect Discharge:

The individual locations of the indirect discharges are located on the streams listed in Attachment A-1, "Approved Disposal Fields", and shown on corresponding field maps. The drainage area listed is at the point of compliance.

Upon issuance of this permit, the permittee shall submit to each town clerk's office a list of Approved Disposal Fields that are within the town to be made available for public review.

G2. Nature of Indirect Discharge:

Dairy processing wastewater is a non-sewage, non-pathogenic waste generated from the cleaning and sanitizing of the permittee's trucks, tanks, equipment, piping and facilities. Dairy processing wastewater consists primarily of washwater, but may contain whey spillage, cottage (acid whey) spillage, and line and tank rinsings which may contain milk, sour cream, cottage cheese or yogurt. Dairy processing wastewater is used as a soil amendment for agricultural purposes to approved disposal fields due to its high nitrogen, phosphorus, and organic content.

The dairy processing wastewater from the facility is pumped to two wastewater storage tanks, each with a capacity of 100,000 gallons. Dairy processing wastewater is loaded by gravity into disposal trucks. The trucks transport the wastewater to approved fields and manure pits in the disposal program and discharge the waste via a spray gun system to fields, or discharge the waste directly into manure pits.

The Vermont Guidelines for the Land Application of Dairy Processing Wastes apply to this discharge. Land application is limited to a maximum volume of one inch per year (27,152 gallons per acre per year). For well-verified year-round fields, the maximum application is 0.5 inches per year (13,576 gallons per acre per year) with a minimum of three foot separation to groundwater during land application. Daily application rates are limited to a maximum of 0.25 inches per day (6,788 gallons per acre per day) in the summer (May 15th - September 15th) and 0.13 inches per day (3,530 gallons per acre per day) the rest of the year.

G3. Summary of Hydrologic Data of Receiving Waters:

Attachment A-1 to the permit identifies the receiving waters and the estimated low median monthly flow at the point of compliance for each disposal field. Flow data from gaged streams of comparable size and location were used to estimate the flows of the receiving streams because flow data does not exist for all the receiving streams.

In accordance with the Vermont Guidelines for Land Application of Dairy Processing Wastes, the dilution ratio between the receiving stream at low monthly median flow and the maximum daily discharge must meet the minimum 10 to 1 dilution ratio for each season. The maximum application rate is 10% of the low median monthly flow per season as indicated in Attachment A-1, or the maximum daily land application limit as per the Vermont Guidelines for Land Application of Dairy Processing Wastes, whichever value is less. Attachment A-2 to the permit provides the maximum application rate for each field under these criteria.

SECTION H "SYSTEM SPECIFICATIONS"

Not Applicable.

SECTION I "SYSTEM OPERATION"

I1. Land Application Prohibitions:

The land application of dairy processing wastewater to any field is strictly prohibited when:

- A. seasonal or stormwater runoff is occurring directly to waters of the State;
- B. the land application of wastewater will cause surface runoff directly to waters of the State;
- C. a rain event is occurring when more than one inch of rain is predicted to fall in an hour or when more than two inches of rainfall is predicted within a 24-hour period, as per the local forecast from the National Weather Service.
- D. groundwater is within 36 inches of the ground surface;
- E. the land application will result in a violation of the Vermont Water Quality Standards, effective October 30, 2014; and
- F. the land application will result in a violation of the Groundwater Protection Rule and Strategy, effective February 14, 2005.

I2. Limits on Land Application:

A. Annual Limits:

This permit authorizes the indirect discharge of dairy processing wastewater generated at a maximum volume of 150,000 gallons per day, for a total annual discharge volume of 54,750,000 gallons. The amount of dairy processing wastewater land applied to any field shall not exceed 1.0 inch per year (27,152 gallons per acre per year). For well-verified year-round fields, the maximum application is 0.5 inches per year (13,576 gallons per acre per year). In no case shall land application exceed the annual discharge volumes listed in Attachment A-2, "Approved Application Rates".

I2. Limits on Land Application (continued):

B. Daily Limits:

The permittee shall not land apply dairy processing wastewater at a rate exceeding 0.25 inches per day (6,788 gallons per acre per day) in the summer (May 15th through September 15th) and 0.13 inches per day (3,530 gallons per acre per day) in the fall, winter, and spring (September 16th through May 14th). For fields with low receiving stream dilution ratios, the maximum daily application rate is restricted to 10% of the low median monthly flow. In no case shall land application exceed the daily application rates listed in Attachment A-2, "Approved Application Rates".

I3. Reserve Area:

Unless other disposal options are available, adequate reserve area must be available at all times for land application. At a minimum, the available area for disposal must be an average of 120% of the facilities dairy processing wastewater flow in each season. The following is a summary of acreage required to be available for the land application of dairy processing wastewater.

Season	Acreage Needed for Disposal ¹	Acreage Required (120%)	Acreage Available ²
Summer (124 days)	685	822	Summer Fields: 545.0 Summer/Fall Fields ³ : 832.2 Year-Round Fields ³ : <u>690.0</u> Total: 2,040.2
Fall (61 days)	337	404.4	Summer/Fall Fields Total: 1,236.6
Winter/Spring (180 days)	994.4	1,193.3	Year-Round Fields Total: 1,883.3

Notes:

1. Based on a maximum annual rate of 150,000 gallons per day.
2. Summer, summer/fall, and year-round fields include observation well verified acreages.
3. Acreages available for summer season after subtracting acreages required for fall and winter/spring seasons.

I4. Annual Inspection, Report and Implementation Schedule:

A. Annual Inspection:

Annually during the month of May, the permittee shall engage a professional engineer registered in the State of Vermont to make a thorough inspection, evaluation, and report of the collection and land application system for the dairy processing wastewater. The permittee shall notify the Secretary at least one week in advance of the inspection date. The engineer's inspection shall include, but not be limited to the following:

1. an examination of the collection system and pump station(s) used to convey the dairy processing wastewater from the production area to the storage tanks;
2. verifying the proper operation of the pump(s) and, if applicable, any alarm system;
3. examination of the tanks and containment structures as well as any leakage detection system;
4. checking the calibration of flow meters used to determine the volume of dairy processing wastewater stored in the tanks or verifying, by the review of recent documentation (within the past two years), that the meters are properly calibrated within a 10% tolerance;
5. checking the equipment utilized to fill the spray trucks and observing the procedure utilized to fill the trucks;
6. observing the land application of dairy processing wastewater on disposal fields, and checking the proper operation of each truck's spray nozzle;
7. checking each vehicle's daily journal for compliance with the requirements of Condition I11; and
8. noting any necessary repairs and maintenance and/or improvements that should be made to the land application system.

I4. Annual Inspection, Report and Implementation Schedule (continued):

B. Annual Inspection Report:

Annually, by July 1st, the permittee shall have a professional engineer submit an annual report including the following items:

1. a complete discussion of the items inspected and the results of the inspection; and
2. a discussion of the recommended repairs and maintenance and/or improvements.

C. Implementation Schedule:

By July 1st each year, the permittee shall notify the Secretary in writing stating how the engineer's recommendations are to be implemented and including a schedule for their implementation.

I5. Truck Driver Training:

Within six (6) months of the adoption of a rule by the Secretary of the Agency of Agriculture pertaining to the certification of custom applicators, the permittee shall have each current land application truck driver complete eight hours of training as a custom applicator.

I6. Hours of Operation for Land Application:

During spring, summer and fall the permittee shall land apply dairy processing wastewater only between one-half hour before sunrise to one-half hour after sunset. The sunrise and sunset times utilized for this purpose shall be those published in the Vermont Digest of Fish & Wildlife Laws for the date in question.

During winter the permittee may land apply dairy processing wastewater during early morning (after 5:00 a.m.) and late afternoon (until 6:00 p.m.) when it is dark due to the shorter daylight hours available. The permittee shall minimize the amount of land application that occurs during non-daylight hours. When land applying dairy processing wastewater during these hours, the permittee shall maintain a 500' isolation distance between the area applied and any surface waters or habitation. The dairy processing wastewater may not be applied nor travel closer than this prescribed distance.

I7. Landowner Agreement:

For each landowner of a field to be used for disposal, a written and signed agreement is required between the landowner and the permittee, stating the agreement of the owner to allow application on the fields. Unless the permittee has other disposal options available, the permittee must maintain sufficient area available to dispose of 120% of the dairy processing wastewater produced in each season. If, due to the termination of agreement(s), the permittee is not able to maintain sufficient area available to dispose of 120% of the dairy processing wastewater produced in each season, upon learning of this situation, the permittee shall notify the Secretary by phone within one (1) working day and in writing within five (5) working days. The Secretary may require the permittee to take additional measures to address this situation including, but not limited to, identification of new farm fields for land application and/or reduction in the allowable annual design flow to the point where the 120% requirement is met. Any agreement that is terminated must be included in the annual report due July 1st in accordance with Part II, Condition F5.

Fields designated for groundwater and receiving stream monitoring (see Part II, Condition J2), shall have a five (5) year agreement unless the permittee requests in writing and receives written approval from the Secretary allowing a shorter term agreement, stating the owner will allow application of dairy processing wastewater on the fields and will allow additional monitoring as required in Part II, Conditions J4 and J5.

I8. Disposal Vehicles:

The permittee shall maintain a fleet of disposal vehicles adequate to properly dispose of dairy processing wastewater by land application. The permittee shall inspect the spray devices daily as part of the driver's routine in order to reduce clogging and uneven distribution. Any proposed changes in equipment design and/or function shall be approved by the Secretary prior to routine use by the permittee, including using alternative land application techniques on a trial basis.

I9. Other Methods of Disposal:

A. Manure Pits:

The permittee may dispose of dairy processing wastewater and waste whey in a manure pit up to a maximum of ten per cent of the volume of the manure pit annually, as outlined in the Vermont Guidelines for Land Application of Dairy Processing Wastes. The permittee shall record the date, volume and identify the manure pit and submit this information in the Monthly Disposal Report (see Part II, Condition I12). This mixture of dairy processing wastewater and manure shall be spread according to Accepted Agricultural Practices as defined by the Vermont Agency of Agriculture, Food and Markets. A list of the approved manure pits is included as Attachment B of this permit.

The permittee may add manure pits to the authorized list in Attachment B in accordance with the Vermont Guidelines for Land Application of Dairy Processing Wastes.

B. Hayfields:

The permittee may dispose of dairy processing wastewater in the summer to previously used hayfields (referred to as Z-fields) that do not meet the soil/site criteria, as outlined in the Vermont Guidelines for Land Application of Dairy Processing Wastes. Application shall be limited to a two week period following the cutting of hay, and the application rate shall not exceed the daily or seasonal limits specified in Attachment C. There shall be no applications to these fields after September 30th each year.

For hayfields not previously used for land application or previously mapped, application of wastewater shall not occur until the permittee has calculated the acreage and submitted a map to the Secretary for concurrence, and the driver has completed the form "Driver Checklist for Land Application on One-Time Use Fields". A maximum of 0.25 inches of wastewater may be applied on these fields within the two-week period following the cutting of hay each year (6,788 gallons per acre per year), with the daily application rate of no more than 0.125 inches per day (3,394 gallons per acre per day). The permittee shall record the date, volume and location of the field(s) and submit this information in the Monthly Disposal Report (see Part II, Condition I12).

The "Driver Checklist for Land Application on One-Time Use Fields" forms shall be retained for a period of 3 years and copies should be submitted to the Secretary upon request or made available for review upon field inspection by authorized representatives of the Secretary.

The permittee shall notify the town(s) in which the land application is to occur prior to land application if the town(s) has not previously received notification.

I10. Other Restrictions:

The permittee shall conduct the land application of dairy processing wastewater in accordance with the Vermont Guidelines for Land Application of Dairy Processing Wastes and the conditions of this permit, with the following restrictions:

- A. The use of fields designated as observation well-verified shall be given a low priority for application of dairy processing wastewater if other disposal fields are available for use; and
- B. If standing water is observed in any field, land application shall be limited to the area(s) of the field where no standing water is present.

I11. Daily Journal:

The permittee's employees shall maintain a bound, daily journal in each disposal vehicle with printed, pre-numbered pages that remain with the vehicle. The driver of the vehicle shall record in ink, at a minimum, the field name, field number, date, and time of disposal, and any observations including weather, wind direction and speed, standing water, surface runoff, all groundwater level measurements, and any other observations that prohibit the land application of wastewater that day. The driver shall also record any incidence of accidental disposal, spillage that occurs during land application, or any other incidents that may affect the landowner, adjacent landowners, or other members of the public. The driver shall sign and date the entries for each load. The bound log books shall be available for inspection by the authorized representatives of the Secretary and appropriate elected town officials of all towns containing fields in the land application program. Upon request of the Secretary, the permittee shall submit copies of daily journal entries for review.

Alternatively, the permittee's employees may use an approved Driver Checklist for Approved Fields form to record vital information for every load which is land applied. For every load sprayed, the driver of the vehicle must still record in ink, the field name, field number, date, and time of disposal in the daily journal that remains with the vehicle, along with a reference to the completed Driver Checklist for Approved Fields form. The Driver Checklist for Approved Fields forms shall be collected at the end of each day, scanned, and be made available electronically to the Secretary upon request.

I12. Monthly Disposal Report:

The permittee shall submit a monthly report to the Secretary listing the dates of land application, the fields and manure pits which were utilized for disposal, the depth to groundwater in the well-verified monitoring wells, and the volume of dairy processing wastewater applied on each field and to each manure pit. A copy of the daily entry from the daily journal for any date there is an incident shall be submitted. The number of gallons applied on each field shall be totaled and the report submitted by the 15th of each month, and shall include all land application activity which occurred in the previous month.

I13. Annual Report:

By November 30th each year the permittee shall submit a report to the Secretary summarizing the land application program for the previous October 1st through September 30th. The report shall include the following:

Table 1: Field Number
Field Disposal Capacity (gallons per year)
Dairy Processing Wastewater gallonage applied during the period
October 1 – September 30.

Table 2: Manure Pit Name
Manure Pit Disposal Capacity (gallons per year)
Dairy Processing Wastewater gallonage discharged to the pit
during the period October 1 – September 30.

Table 3: Z-Field Number
Field Disposal Capacity (based on mapped acreage)
Dairy Processing Wastewater gallonage applied during the period
October 1 – September 30.

Table 4: Daily Summary of All Loads for Period October 1 – September 30.

Table 5: Fields, manure pits and Z-fields added or removed from the
disposal program during the period October 1 – September 30.

I14. Cleaning Chemicals:

The permittee shall notify the Secretary in writing of any changes to chemical list submitted to the Secretary on October 6, 2015, or in the cleaning and sanitizing processes. Depending upon the changes made, the Secretary may require an amendment of this permit and/or additional monitoring and reporting requirements.

I15. Alternatives Analysis:

The permittee has voluntarily engaged in a stakeholder process to evaluate potential alternatives for washwater and polished permeate treatment and/or disposal, and to develop an alternatives ranking system based on considerations such as technical feasibility, environmental benefits and cost. The disposal alternatives considered should include the feasibility of both direct and indirect discharging systems. By December 31, 2016, the permittee shall present an Alternatives Analysis report resulting from the stakeholder process, including recommendations for implementation and proposed schedule, to the Secretary for review and consideration. The permittee shall obtain a determination from the Secretary as to whether a permit amendment is necessary, or if other permits must be obtained in order to implement a proposed alternative.

I16. Application for Permit Amendment:

Prior to implementing any proposed alternative, the permittee shall apply for a permit amendment, if required, consistent with the outcome of the Alternatives Analysis report and the Secretary's determination regarding a permit amendment as detailed in Condition I15 above. The permittee shall apply for any necessary permit amendment in accordance with any schedule established by the Secretary.

SECTION J "MONITORING"

J1. Quality Control/Quality Assurance Plan (QA/QC Plan):

The permittee shall perform sampling and analysis for the land application of process wastewater in accordance with the QA/QC Plan dated April 2015, as revised and approved, and the conditions of this permit.

J2. Additional Water Quality Monitoring:

By June 30, 2016, the permittee shall submit a revised QA/QC Plan to the Agency for review and approval for the inclusion of additional groundwater and surface water monitoring. Emphasis shall be placed on monitoring water quality at fields that are used for land application on a regular basis and where the receiving stream low median monthly flow to maximum daily application rate is at or near the minimum 10:1 dilution ratio.

The revised QA/QC Plan shall include the collection and analysis of groundwater and receiving stream samples from a minimum of 15 fields throughout the disposal area. Groundwater sampling and analyses shall be performed in accordance with the requirements of Condition J4(A). Stream sampling shall be performed upstream and downstream of the fields in accordance with the requirements of Condition J5(A).

The revised QA/QC Plan shall also include provisions for performing biological site assessments and a plan for sampling and analysis of the aquatic biota in the receiving streams in accordance with Subchapter 22 of the Indirect Discharge Rules, effective April 30, 2003, in the event that the Secretary determines that biological site assessments and/or sampling and analysis is warranted.

The revised QA/QC Plan shall specify when land application shall take place on the fields identified above to the extent allowed in Attachment A-2, taking into consideration factors such as time of travel and sampling schedules so that groundwater and surface water quality can be evaluated at optimum times.

J3. Dairy Processing Wastewater Monitoring:

A. Chemical:

The dairy processing wastewater land applied to the disposal fields shall be sampled monthly and analyzed as follows:

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Flow	gpd	daily total	continuous
Biochemical Oxygen Demand (5-day)	mg/L	grab	Feb., May, Aug., & Sept.
Total Suspended Solids	mg/L	grab	Feb., May, Aug., & Sept.
Total Phosphorus (TP)	mg/L	grab	Feb., May, Aug., & Sept.
Total Dissolved Phosphorus (TDP)	mg/L	grab	Feb., May, Aug., & Sept.
Chloride (Cl-)	mg/L	grab	Feb., May, Aug., & Sept.
Sodium (Na+)	mg/L	grab	Feb., May, Aug., & Sept.
Total Dissolved Solids	mg/L	grab	Feb., May, Aug., & Sept.
Total Kjeldahl Nitrogen (TKN)	mg/L	grab	Feb., May, Aug., & Sept.
Ammonia Nitrogen (NH ₃)	mg/L	grab	Feb., May, Aug., & Sept.
Nitrite-Nitrate Nitrogen	mg/L	grab	Feb., May, Aug., & Sept.
pH	S.U.	grab	Feb., May, Aug., & Sept.

 Samples shall be taken at the gravity flow line which is used to fill the disposal trucks.

B. Flow Measurement:

The volume of dairy processing wastewater produced, the volume in the storage tanks, and the volume transferred to the disposal vehicles shall be recorded daily and a report shall be submitted to the Secretary containing the monthly totals by the 15th day of the following month.

J4. Groundwater Monitoring:

A. Chemical:

The monitoring wells identified in an approved QA/QC Plan required in Condition J2 above shall be sampled monthly and analyzed for the following parameters:

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Total Dissolved Solids	mg/L	grab	May, August & September
Total Phosphorus (TP)	mg/L	grab	May, August & September
Total Dissolved Phosphorus (TDP)	mg/L	grab	May, August & September
Chloride (Cl-)	mg/L	grab	May, August & September
Sodium (Na+)	mg/L	grab	May, August & September
Total Kjeldahl Nitrogen (TKN)	mg/L	grab	May, August & September
Ammonia Nitrogen (NH ₃)	mg/L	grab	May, August & September
Nitrite-Nitrate Nitrogen	mg/L	grab	May, August & September
pH	S.U.	grab	May, August & September
Depth to groundwater (below ground surface)	inches		At time of sampling

 Because of the changing water table conditions the samples from the groundwater monitoring wells might not be collected on the same day or in the same week. If a monitoring well has water at any time during the sampling months then a sample is required to be collected and analyzed.

B. Groundwater Levels:

The depth to groundwater (below ground surface) shall be measured and recorded in the monitoring wells for all well-verified fields immediately prior to the spraying of wastewater. No spraying shall be conducted if groundwater is closer than three (3) feet to the ground surface as based on these measurements. Dry wells shall be recorded as "no water to depth of well". Groundwater level measurements shall be recorded in the driver's logbook or checklist even when groundwater is less than 36 inches from ground surface.

J5. Receiving Stream Monitoring:

A. Chemical

The receiving streams identified in an approved QA/QC Plan required in Condition J2 above shall be sampled monthly at locations upstream and downstream of the fields used for land application and analyzed for the following:

<u>Parameter</u>	<u>Units</u>	<u>Type</u>	<u>Sample Frequency</u>
Total Phosphorus	mg/L	grab	August and September
Total Dissolved Phosphorus	mg/L	grab	August and September
Chloride (Cl-)	mg/L	grab	August and September
Sodium (Na+)	mg/L	grab	August and September
Total Kjeldahl Nitrogen (TKN)	mg/L	grab	August and September
Ammonia Nitrogen (NH ₃)	mg/L	grab	August and September
Nitrite-Nitrate Nitrogen	mg/L	grab	August and September
pH	S.U.	grab	August and September
Temperature	Deg.	grab	August and September
Total Alkalinity as CaCO ₃	mg/L	grab	August and September
Dissolved Oxygen	mg/L	grab	August and September
Turbidity	N.T.U.	grab	August and September
Conductivity	S/m	grab	August and September

 The permittee shall not sample the receiving stream within 24 hours of any storm event affecting the stream's watershed.

B. Biological:

If the Secretary determines it is necessary, the permittee shall, upon written notice from the Secretary, have qualified aquatic biologist perform biological site assessment(s) and/or biological sampling and analysis of the receiving stream(s) in accordance with an approved QA/QC Plan.

J6. Submittal of Monitoring Results:

The daily volumes of process wastewater land applied and discharged to manure pits, and the well-verified groundwater depth measurements required by Conditions J3 and J4 above shall be submitted to the Secretary by the 15th day of the following month following the date of measurement.

The results of all the process wastewater, groundwater and surface water sampling required by Conditions J3 – J5 above shall be submitted to the Secretary by the 15th day of the second month following the date of sampling.

J7. Soil Sampling:

By March 31, 2016, the permittee shall submit a proposed list of fields to be sampled to the Secretary for review and approval. Emphasis shall be placed on fields which have been regularly used for land application for many years.

Composite soil samples shall be collected from a minimum of 30 fields approved for sampling in accordance with UVM Extension Service guidelines. Composite samples must be representative of the soils of each field. For fields larger than 20 acres, one composite sample shall be collected for every 20 acres. Sampling shall occur before manure, fertilizer or lime is applied to the fields. The soil samples shall be analyzed for, at a minimum, total exchange capacity, pH, percent organic matter, sulfur, phosphorus (as P₂O₅), calcium, magnesium, potassium, sodium, exchangeable hydrogen and the minor elements.

By October 31, 2016, the permittee shall submit all soil sampling results to the Secretary for review.

By December 31, 2016, the permittee shall have a qualified soil specialist review the soil sampling results and submit an evaluation of soil conditions for each field sampled to the Secretary. The evaluation shall identify the soil types and determine the nutrient leaching potential of each field.

J8. Water Quality Evaluation:

By March 31, 2020, the permittee shall have a qualified water quality specialist submit a water quality evaluation to the Secretary of all the washwater, groundwater and surface water quality data collected during the 2015 – 2019 permit period. Biological monitoring data, if requested by the Secretary, shall also be included. The report shall summarize what, if any, short or long term impacts there have been on groundwater or surface water quality. The report shall also include a summary of the volume of dairy processing wastewater applied to the fields prior to groundwater and/or surface water sampling.

The water quality evaluation shall indicate whether the land application of process wastewater is in compliance with the Groundwater Protection Rule and Strategy and the Vermont Water Quality Standards.

J9. Toxic Scan of Dairy Processing Wastewater:

The permittee shall conduct at least three toxic scan analyses during the permit period. In December 2016, June 2018 and December 2019, representative samples of dairy processing wastewater shall be collected and analyzed for the presence of toxic contaminants utilizing the Toxicity Characteristic Leaching Procedure (TCLP) prior to laboratory analysis. The three toxic scans are the minimum during the term of this permit; the Secretary reserves the right to request and/or perform additional sampling and analyses for toxic contaminants during the term of this permit.

In addition to reporting the TCLP list of compounds, the permittee shall contract with a firm that which employs an individual or individuals qualified to review the full data chromatograms generated by the analytical laboratory. The purpose of this additional review is to check for the presence of other compounds in addition to those listed in Table 1 of the Vermont Hazardous Waste Management Regulations, a total analysis for the presence/absence of regulatory compounds in the dairy processing wastewater. This additional review shall be conducted for each toxic scan with the results submitted by the date indicated above. If additional toxic scans are required, the Secretary will determine the date(s) for submitting the results of those scans and chromatogram assessments.

The results of the toxic scan analyses and a full review and report of the chromatogram data by a quality consulting firm shall be submitted within 90 days from the date of sampling.

PART III: GENERAL CONDITIONS AND REQUIREMENTS

These conditions and requirements apply to all components of the polished permeate and dairy processing wastewater collection, treatment, and disposal operation under this permit.

SECTION K - "GENERAL"

K1. Expiration Date:

This permit, unless revoked, or amended shall be valid until June 30, 2020 despite any intervening change in Water Quality Standards or the classification of receiving waters. Renewal of this Indirect Discharge permit will be subject to all rules applicable at the time of renewal.

The permittee shall apply for renewal of this Indirect Discharge Permit by March 31, 2020 for continued authorization to land apply process wastewater.

K2. Revocation:

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

K3. 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. If the transferee is a corporation or an association of unit owners or other legal entity, it shall be demonstrated that such legal entity has 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 permittees to the Secretary.

K4. Modifications of Permit:

The Secretary reserves the right to reopen and amend this permit to include additional polished permeate, dairy processing wastewater, soil, groundwater and/or surface water monitoring requirements based on the results of monitoring required by this permit. The Secretary shall provide the permittee with public notice and an opportunity for a public hearing before amending the permit.

The Secretary may make minor modifications of this permit without requiring a permit application, a public notice, or a public hearing if the modifications are to correct typographical errors.

K5. Right of Secretary to Inspect:

The permittee shall allow the Secretary or the Secretary's authorized representative, upon presentation of their credentials and at reasonable times:

- A. To enter upon any field or inspect any manure pit being used as a disposal site;
- B. To enter upon permittee's premises in which any polished permeate or process wastewater source, treatment or disposal 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; and
- F. To inspect at reasonable times, any collection, treatment, pollution management and disposal location authorized by this permit.

K6. Permit Availability:

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

K7. Operator Certification:

The permittee is required at all times to employ a chief and an assistant chief operator that shall supervise and be responsible for all aspects of the polished permeate and dairy processing wastewater collection, treatment, and disposal operation under this permit. These individuals shall each hold an Industrial Class I operator certificate from the Department of Environmental Conservation in accordance with the Wastewater Treatment Facility Operator Certification Rule, dated September 25, 2014. The permittee shall submit to the Secretary in writing the names of the chief and assistant chief operator and notify the Secretary in writing immediately of any change of operator or assistant operator.

K8. Laboratory Performance:

The laboratory identified in the Quality Assurance/Quality Control Plan, dated April 2015 or as revised, 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 Department of Environmental Conservation or EPA check samples may be a basis for requiring an alternate analytical laboratory.

K9. Sampling and Testing Procedures:

All wastewater, groundwater and surface water sampling, preservation, handling and test procedures used to comply with the monitoring requirements herein shall conform to procedures specified in the most current edition of Standard Methods for the Examination of Water and Wastewater APHA - AWWA - WPCF, and the Vermont Water Quality Standards unless written approval of an alternate method is received from the Agency.

K10. Miscellaneous:

If the permittee monitors any required parameter set forth in this permit for this disposal system more frequently or at additional locations than required by this permit, the results of such monitoring shall be included in the Monthly Disposal Report.

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Secretary.

Records shall include laboratory bench sheets showing exact location, time and composites of samples as well as analytical procedures used, interim results obtained and all calculations supporting the reported test results.

K11. 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 L - "COMPLIANCE REVIEW"

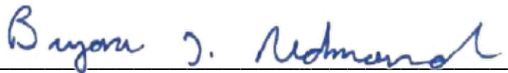
If the results of monitoring the polished permeate, dairy processing wastewater, groundwater, storage ponds, or the receiving streams show there is a possibility that the Vermont Water Quality Standards, effective October 30, 2014, or the Groundwater Protection Rule and Strategy, effective February 14, 2005, may be violated, the Secretary may increase the frequency of, or change the location of, monitoring of the groundwater or surface water. If continued monitoring and analysis indicates that a violation of the polished permeate and/or dairy processing wastewater disposal volumes or a violation of the Vermont Water Quality Standards, effective October 30, 2014, or the Groundwater Protection Rule and Strategy, effective February 14, 2005, has occurred, is occurring, or is likely to occur, the Secretary may require the permittee to take appropriate corrective action to eliminate or reduce the possibility of a violation.

The issuance of this Indirect Discharge Permit Amendment, ID-9-0043-1, to Agri-Mark, Inc. (dba Cabot Creamery), by the Secretary relies upon the data, designs, judgement, and other information supplied by the applicant, their 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 applicant and no warranties or guarantees are given or implied.

SECTION M - "EFFECTIVE DATE"

This Indirect Discharge Permit Amendment, ID-9-0043-1, issued to Agri-Mark, Inc. (dba Cabot Creamery) for the indirect discharge of polished permeate and dairy processing wastewater, is effective this 13th day of February, 2017.

Joanna Pallito, Commissioner
Department of Environmental Conservation

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