

**North Dakota Department of Environmental Quality Public Notice  
Reissue of an NDPDES Permit**

Public Notice Date: 7/26/2019

Public Notice Number: ND-2019-013

**Purpose of Public Notice**

The Department intends to reissue the following North Dakota Pollutant Discharge Elimination System (NDPDES) Discharge Permit under the authority of Section 61-28-04 of the North Dakota Century Code.

**Permit Information**

Application Date: 10/23/2018

Application Number: ND0025925

Applicant Name: Cargill Malting Co

Mailing Address: 15401 McGinty Rd W, Wayzata, MN 55391

Telephone Number: 952.742.5927

Proposed Permit Expiration Date: 9/30/2024

**Facility Description**

The reapplication is for the discharge of sump pump water from the storage bins and site runoff. The discharge point is located in the SW 1/4 of the NW 1/4 of the SE 1/4 of Section 28, Township 140 N, Range 62 W. Any discharge would be from Outfall 003 to an unnamed tributary of Seven Mile Coulee, a Class III stream.

**Tentative Determinations**

Proposed effluent limitations and other permit conditions have been made by the Department. They assure that State Water Quality Standards and applicable provisions of the FWPCA will be protected.

**Information Requests and Public Comments**

Copies of the application, draft permit, and related documents are available for review. Comments or requests should be directed to the ND Dept of Env Quality, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947 or by calling 701.328.5210.

All comments received by August 27, 2019 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

Permit No: ND0025925  
Effective Date: October 1, 2019  
Expiration Date: September 30, 2024

AUTHORIZATION TO DISCHARGE UNDER THE  
NORTH DAKOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Chapter 33.1-16-01 of the North Dakota Department of Environmental Quality rules as promulgated under Chapter 61-28 (North Dakota Water Pollution Control Act) of the North Dakota Century Code,

Cargill Malting Company  
Spiritwood North Dakota

is authorized to discharge from its wastewater treatment system  
to an unnamed tributary to Seven Mile Coulee a Class III stream  
provided all the conditions of this permit are met.

This permit and the authorization to discharge shall expire at midnight,  
September 30, 2024.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

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Karl H. Rockeman, P.E.  
Director  
Division of Water Quality

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**DEFINITIONS Standard Permit BP 2019.05.29**

1. “**Act**” means the Clean Water Act.
2. “**Average monthly discharge limitation**” means the highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month.
3. “**Average weekly discharge limitation**” means the highest allowable average of “daily discharges” over a calendar week, calculated as the sum of all “daily discharges” measured during a calendar week divided by the number of “daily discharges” measured during that week.
4. “**Best management practices**” (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.
5. “**Bypass**” means the intentional diversion of waste streams from any portion of a treatment facility.
6. “**Composite**” sample means a combination of at least 4 discrete sample aliquots, collected over periodic intervals from the same location, during the operating hours of a facility not to exceed a 24 hour period. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.
7. “**Daily discharge**” means 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 limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the “daily discharge” is calculated as the average measurement of the pollutant over the day.
8. “**Department**” means the North Dakota Department of Environmental Quality, Division of Water Quality.
9. “**DMR**” means discharge monitoring report.
10. “**EPA**” means the United States Environmental Protection Agency.
11. “**Geometric mean**” means the  $n^{\text{th}}$  root of a product of  $n$  factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.
12. “**Grab**” for monitoring requirements, means a single "dip and take" sample collected at a representative point in the discharge stream.
13. “**Instantaneous**” for monitoring requirements, means a single reading, observation, or measurement. If more than one sample is taken during any calendar day, each result obtained shall be considered.
14. “**Maximum daily discharge limitation**” means the highest allowable “daily discharge.”
15. “**Salmonid**” means of, belonging to, or characteristic of the family Salmonidae, which includes the salmon, trout, and whitefish.
16. “**Sanitary Sewer Overflows (SSO)**” means untreated or partially treated sewage overflows from a sanitary sewer collection system.

17. **“Severe property damage”** means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
18. **“Total drain”** means the total volume of effluent discharged.
19. **“Upset”** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

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**OUTFALL DESCRIPTIONS**

<b>Outfall 003. Active. Final Outfall. Pond 4 Effluent.</b>			
Latitude: 46.91040521	Longitude: 98.51072916	County: Stutsman	
Township: 140	Range: 62	Section: 28	QQ: DBC
Receiving Stream: Unnamed Tributary to Seven Mile Coulee		Classification: Class III Stream	
Outfall Description: This outfall was added in 1996 and is located approximately 0.7 miles south west from the south end of Pond 4.			

**PERMIT SUBMITTALS SUMMARY**

Coverage Point	Submittal	Frequency	First Submittal Date
003A	Discharge Monitoring Report	Semi-Annual	04/30/2020
Application Renewal	NPDES Application Renewal	1/permit cycle	04/01/2024

**I. LIMITATIONS AND MONITORING REQUIREMENTS**

**A. Discharge Authorization**

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfalls as specified to the following: **Seven Mile Coulee**, a class III stream.

**B. Outfall 003. Final Outfall. Pond 4 Effluent.**

This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process.

Effluent Limitations and Monitoring Requirements <b>Outfall 003</b>							
Parameter	Effluent Limitations					Monitoring Requirements	
	Quantity		Concentration			Sample Frequency	Sample Type
	Avg. Monthly Limit	Daily Maximum Limit	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit		
Biochemical Oxygen Demand BOD5 mg/l	*	*	25 mg/l	45 mg/l	*	Weekly	Grab
Total Suspended Solids (TSS) mg/l	*	*	*	*	100 mg/l	Weekly	Grab
Oil and Grease, visual 1/	*	Report Monthly Total	*	*	*	Weekly	Visual
Oil and Grease (mg/l) 1/	*	*	*	*	10 mg/l	Conditional/Weekly	Grab
pH 2/	Shall remain between 6.0 to 9.0 S.U.					Weekly	Grab
Flow Effluent, MGD	Report Avg. Monthly Value	*	*	*	*	Monthly	Calculated
Total Drain, MGAL	*	Report Semi-Annual Total	*	*	*	Semi-Annual	Calculated
<p>*. This item is not limited or not applicable for the stated parameter. However, the Department may impose limitations based on sample history and to protect the receiving waters.</p>							
<p>1/ The effluent shall be visibly examined weekly for a sheen or floating oil. If present, a grab sample shall be analyzed for oil and grease to ensure compliance with the concentration limitations.</p>							
<p>2/ The pH, an instantaneous limitation, shall be between 6.0 s.u. and 9.0 s.u. Any single analysis and or measurement beyond this limitation shall be considered a violation of the conditions of this permit.</p>							
<p>Stipulations:</p> <p>The dates of discharge, frequency of analyses, total number of gallons discharged, discharge flow rates, and number of exceedances shall also be included on the Discharge Monitoring Reports (DMR).</p> <p>Samples taken in compliance with the monitoring requirements specified in this permit shall be taken prior to leaving the facility property or entering the receiving stream.</p> <p>There shall be no discharge of floating solids or visible foam in other than trace amounts.</p> <p>The department may specify additional discharge conditions or restrictions at any time to maintain water quality standards.</p>							



## II. MONITORING, RECORDING, AND REPORTING REQUIREMENTS BP 2019.05.29

### A. Representative Sampling (Routine and Non-Routine Discharges)

All samples and measurements taken shall be representative of the monitored discharge.

In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee must analyze the additional samples for those parameters limited under **Part I Effluent Limitations and Monitoring** requirements of this permit that are likely to be affected by the discharge.

The permittee must collect such additional samples as soon as the spill, discharge, or bypassed effluent reaches the outfall. The samples must be analyzed in accordance with **B. Test Procedures**. The permittee must report all additional monitoring in accordance with **D. Additional Monitoring**.

### B. Test Procedures

The collection and transportation of all samples shall conform with EPA preservation techniques and holding times found in 40 CFR 136. All laboratory tests shall be performed by a North Dakota certified laboratory in conformance with test procedures pursuant to 40 CFR 136, unless other test procedures have been specified in this permit or approved by EPA as an alternate test procedure under 40 CFR 136.5. The method of determining the total amount of water discharged shall provide results within 10 percent of the actual amount.

### C. Recording of Results

Records of monitoring information shall include:

1. the date, exact place and time of sampling or measurements;
2. the name(s) of the individual(s) who performed the sampling or measurements;
3. the name of the laboratory;
4. the date(s) and time(s) analyses were performed;
5. the name(s) of the individual(s) who performed the analyses;
6. the analytical techniques or methods used; and
7. the results of such analyses.

### D. Additional Monitoring

If the discharge is monitored more frequently than this permit requires, all additional results, if in compliance with **B. Test Procedures**, shall be included in the summary on the Discharge Monitoring Report.

### **E. Reporting of Monitoring Results**

1. Monitoring results shall be summarized and reported to the department using Discharge Monitoring Reports (DMRs). If no discharge occurs during a reporting period, "No Discharge" shall be reported. The permittee must submit DMRs electronically using the electronic information reporting system unless requirements in subsection 3 are met.
2. Prior to December 21, 2020, the permittee may elect to electronically submit the following compliance monitoring data and reports instead of mailing paper forms. Beginning December 21, 2020, the permittee must report the following using the electronic reporting system:
  - a. General permit reports [e.g., notices of intent (NOI); notices of termination (NOT); no exposure certifications (NOE)];
  - b. Municipal separate storm sewer system program reports;
  - c. Pretreatment program reports;
  - d. Sewer overflow/bypass event reports; and
  - e. Clean Water Act 316(b) annual reports
3. The permittee may seek a waiver from electronic reporting. To obtain a waiver, the permittee must complete and submit an Application for Temporary Electronic Reporting Waiver form (SFN 60992) to the department. The department will have 120 days to approve or deny the waiver request. Once the waiver is approved, the permittee may submit paper versions of monitoring data and reports to the department.
  - a. One of the following criteria must be met in order to obtain a waiver. The department reserves the right to deny any waiver request, even if they meet one of the criteria below.
    1. No internet access,
    2. No computer access,
    3. Annual DMRs (upon approval of the department),
    4. Employee turnover (3-month periods only), or
    5. Short duration permits (upon approval of the department)

All reports must be postmarked by the last day of the month following the end of each reporting period. All original documents and reports required herein shall be signed and submitted to the department at the following address:

ND Department of Environmental Quality  
Division of Water Quality  
918 East Divide Ave  
Bismarck ND 58501-1947

### **F. Records Retention**

All records and information (including calibration and maintenance) required by this permit shall be kept for at least three years or longer if requested by the department or EPA.

### III. COMPLIANCE RESPONSIBILITIES

#### A. Duty to Comply

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

#### B. Proper Operation and Maintenance

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. If necessary to achieve compliance with the conditions of this permit, this shall include the operation and maintenance of backup or auxiliary systems.

#### C. Planned Changes

The department shall be given advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance. Any anticipated facility expansions, production increase, or process modifications which might result in new, different, or increased discharges of pollutants shall be reported to the department as soon as possible. Changes which may result in a facility being designated a "new source" as determined in 40 CFR 122.29(b) shall also be reported.

#### D. Duty to Provide Information

The permittee shall furnish to the department, within a reasonable time, any information which the department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the department, upon request, copies of records required to be kept by this permit. When a permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in a permit application or any report, it shall promptly submit such facts or information.

#### E. Signatory Requirements

All applications, reports, or information submitted to the department shall be signed and certified.

All permit applications shall be signed by a responsible corporate officer, a general partner, or a principal executive officer or ranking elected official.

All reports required by the permit and other information requested by the department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

The authorization is made in writing by a person described above and submitted to the department;  
and

The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

If an authorization under E. Signatory Requirements is no longer accurate for any reason, a new authorization satisfying the above requirements must be submitted to the department prior to or together with any reports, information, or applications to be signed by an authorized representative.

Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the

system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

#### **F. Twenty-four Hour Notice of Noncompliance Reporting**

1. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The following occurrences of noncompliance shall be included in the oral report to the department at 701.328.5210:
  - a. Any lagoon cell overflow or any unanticipated bypass which exceeds any effluent limitation in the permit under G. Bypass of Treatment Facilities;
  - b. Any upset which exceeds any effluent limitation in the permit under H. Upset Conditions; or
  - c. Violation of any daily maximum effluent or instantaneous discharge limitation for any of the pollutants listed in the permit.
2. A written submission shall also be provided within five days of the time that the permittee became aware of the circumstances. The written submission shall contain:
  - a. A description of the noncompliance and its cause;
  - b. The period of noncompliance, including exact dates and times;
  - c. The estimated time noncompliance is expected to continue if it has not been corrected; and
  - d. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

Reports shall be submitted to the address in **Part II.E. Reporting of Monitoring Results**. The department may waive the written report on a case by case basis if the oral report has been received within 24 hours by the department at 701.328.5210 as identified above.

All other instances of noncompliance shall be reported no later than at the time of the next Discharge Monitoring Report submittal. The report shall include the four items listed in this subsection.

#### **G. Bypass of Treatment Facilities**

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to any of the following provisions in this section.
2. Bypass exceeding limitations-notification requirements.
  - a. Anticipated Bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of bypass.
  - b. Unanticipated Bypass. The permittee shall submit notice of an unanticipated bypass as required under F. Twenty-four Hour Notice of Noncompliance Reporting.
3. Prohibition of Bypass. Bypass is prohibited, and the department may take enforcement action against a permittee for bypass, unless:
  - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

- b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- c. The permittee submitted notices as required under the 1. Anticipated Bypass subsection of this section.

The department may approve an anticipated bypass, after considering its adverse effects, if the department determines that it will meet the three (3) conditions listed above.

#### **H. Upset Conditions**

An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of the following paragraph are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and the permittee can identify its cause(s);
2. The permitted facility was, at the time being, properly operated;
3. The permittee submitted notice of the upset as required under F. Twenty-four Hour Notice of Noncompliance Reporting and
4. The permittee complied with any remedial measures required under I. Duty to Mitigate.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

#### **I. Duty to Mitigate**

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee, at the department's request, shall provide accelerated or additional monitoring as necessary to determine the nature and impact of any discharge.

#### **J. Removed Materials**

Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be buried or disposed of in such a manner to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not be directly blended with or enter either the final plant discharge and/or waters of the state. The permit issuing authority shall be contacted prior to the disposal of any sewage sludges. At that time, concentration limitations and/or self-monitoring requirements may be established.

#### **K. Duty to Reapply**

Any request to have this permit renewed should be made six months prior to its expiration date.

#### IV. GENERAL PROVISIONS

##### A. Inspection and Entry

The permittee shall allow department and EPA representatives, at reasonable times and upon the presentation of credentials if requested, to enter the permittee's premises to inspect the wastewater treatment facilities and monitoring equipment, to sample any discharges, and to have access to and copy any records required to be kept by this permit.

##### B. Availability of Reports

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the department and EPA. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

##### C. Transfers

This permit is not transferable except upon the filing of a Statement of Acceptance by the new party and subsequent department approval. The current permit holder should inform the new controller, operator, or owner of the existence of this permit and also notify the department of the possible change.

##### D. New Limitations or Prohibitions

The permittee shall comply with any effluent standards or prohibitions established under Section 306(a), Section 307(a), or Section 405 of the Act for any pollutant (toxic or conventional) present in the discharge or removed substances within the time identified in the regulations even if the permit has not yet been modified to incorporate the requirements.

##### E. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. This includes the establishment of limitations or prohibitions based on changes to Water Quality Standards, the development and approval of waste load allocation plans, the development or revision to water quality management plans, changes in sewage sludge practices, or the establishment of prohibitions or more stringent limitations for toxic or conventional pollutants and/or sewage sludges. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

##### F. Need to Halt or Reduce Activity Not a Defense

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

##### G. State Laws

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

##### H. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

##### I. Property Rights

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

##### J. 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.

**FACT SHEET FOR NDPDES PERMIT  
ND0025925**

**CARGILL MALTING CO - SPIRITWOOD**

**DATE OF THIS FACT SHEET – July 2019**

**INTRODUCTION**

The Federal Clean Water Act (CWA, 1972, and later amendments in 1977, 1981, and 1987, etc.) established water quality goals for the navigable (surface) waters of the United States. One mechanism for achieving the goals of the CWA is the National Pollutant Discharge Elimination System (NPDES), which the US Environmental Protection Agency (EPA) has oversight authority. In 1975, the State of North Dakota was delegated primacy of the NPDES program by EPA. The North Dakota Department of Environmental Quality (NDDEQ) has been designated the state water pollution control agency for all purposes of the Federal Water Pollution Control Act, as amended [33 U.S.C. 1251, et seq.], and is hereby authorized to take all action necessary or appropriate to secure to this state the benefits of the act and similar federal acts. The department's authority and obligations for the wastewater discharge permit program is in the NDAC 33.1-16 (North Dakota Administrative Code), which was promulgated pursuant to NDCC chapter 61-28 (North Dakota Century Code). The department uses North Dakota Pollutant Discharge Elimination System (NDPDES) as its permitting title.

The following rules or regulations apply to NDPDES permits:

- Procedures the department follows for issuing NDPDES permits (NDAC chapter 33.1-16-01),
- Standards of Quality for Waters of the State (NDAC chapter 33.1-16-02.1).

These rules require any treatment facility operator to obtain an NDPDES permit before discharging wastewater to state waters. They also define the basis for limits on each discharge and for other requirements imposed by the permit.

According to the North Dakota Administrative Code (NDAC) section 33.1-16-01-08, the department must prepare a draft permit and accompanying fact sheet and make it available for public review. The department must also publish an announcement (public notice) during a period of thirty days, informing the public where a draft permit may be obtained and where comments regarding the draft permit may be sent (NDAC chapter 33.1-16-01-07). For more information regarding preparing and submitting comments about the fact sheet and permit, please see **Appendix A – Public Involvement**. Following the public comment period, the department may make changes to the draft NDPDES permit. The department will summarize the responses to comments and changes to the permit in **Appendix D - Response to Comments**.

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**BACKGROUND INFORMATION**

Table 1: General Facility Information

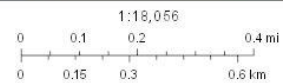
Applicant:	Cargill Malting
Facility Name and Address:	Cargill Malting - Spiritwood 3349 94 <sup>th</sup> Ave SE Spiritwood ND 58461 701.253.7881
Permit Number:	ND0025925
Permit Type:	Minor, Non-POTW, Reissuance
Type of Treatment:	Mechanical and Pond System
SIC Code:	2083 Malt
Discharge Location:	Seven Mile Coulee, Class III Stream Latitude: 46.91040521 Longitude: -98.51072916
Hydrologic Code:	10160003 – Upper James

**Figure 1: Overview of Cargill Malting - Spiritwood**

Cargill Malting - Spiritwood Overview

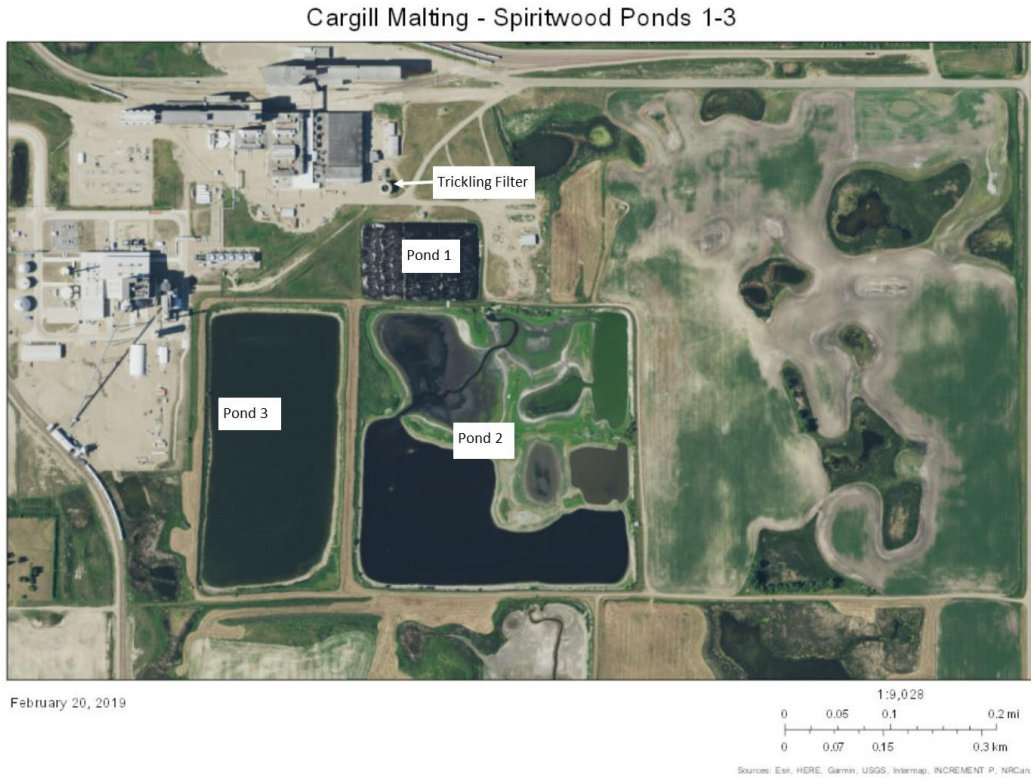


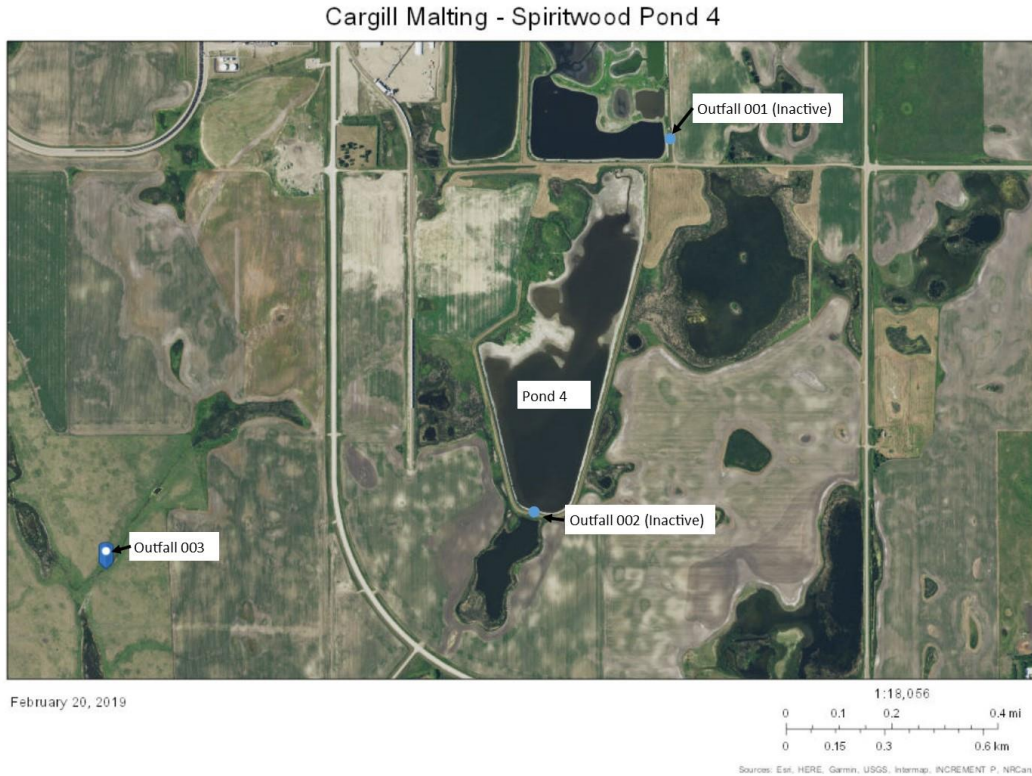
February 20, 2019



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan,

**Figure 2:** Wastewater treatment System, Ponds 1 – 3.





## FACILITY DESCRIPTION

### History

Ladish Malting Company, Spiritwood began operation in 1976. Prior to 1993 the facility used the final effluent water for irrigation. Abnormally wet conditions during some years combined with irrigation resulted in issues with adjacent landowners. The facility continued to irrigate, and discharge as needed.

In 1996 the facility elected to discontinue irrigating and requested a permit to discharge. The permit was modified to deactivate outfall 001 and to add outfall 003. Around 2000 the facility ownership changed from Ladish Malting Company to Cargill Malting Company.

The facility previously processed 25,000,000 bushels of barley for the beer brewing, whiskey distilling, and flour industries. The process includes washing and germinating barley kernels in large steeping tanks with further germination occurring in germination beds. After reaching a desired growth stage, the kernel is then dried in kilns. Eighty five percent of the water pumped into the facility is discharged. The remainder is evaporated during the drying process and a small amount remains in the kernel.



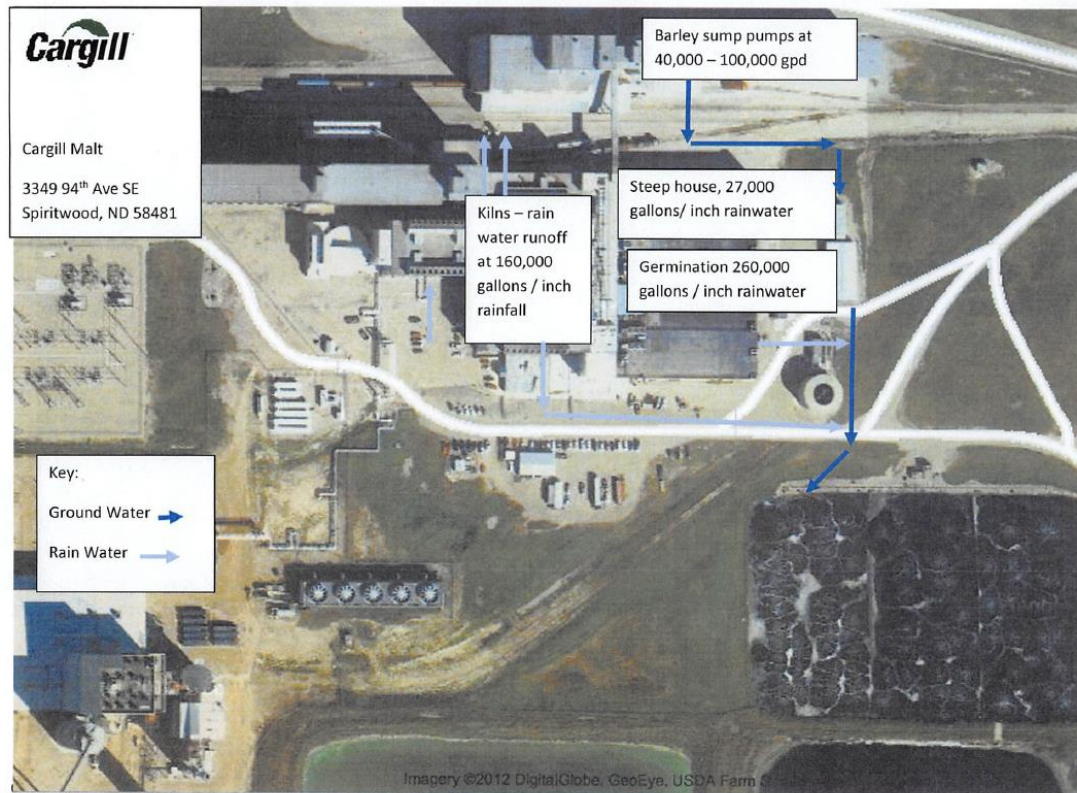
The facility stopped producing malted barley in May 2018 and ceased operations October 31, 2018. The facility will continue to pump groundwater from sump pumps into its emptied wastewater ponds. The ponds will also collect rainwater run-off from site roofs. The ponds will be left in place and will have drain piping installed to maintain pond liners. Any potential discharges from the pond system would consist of ground water and rainwater.

Prior to ceasing operations, the trickling filter was decommissioned in place and all ponds were drained of process and non-process wastewater. Soil and sludge sampling of the pond bottoms were conducted and indicated primarily inert materials and organic solids. Outfall 003 was modified to be an overflow from pond 4 once water elevations reach a certain height so the clay liners will be maintained. There is approximately 300 million gallons of storage in the ponds that will be available until the pond levels would discharge.

### Treatment System

The facility no longer treats process and non-process wastewater associated with the malting process. Operations ceased at the facility on October 31, 2018. Since the facility ceased operations only groundwater and stormwater enter the treatment system. The trickling filter is no longer in operation. The groundwater and stormwater are routed to the pond system.

The following flow diagram of the wastewater treatment system:



The table below displays the size of the various components of the wastewater treatment system:

	Treatment Structure	Cell Size in Acres
1	Pond 1	5.5
2	Pond 2	45.0
3	Pond 3	22.0
4	Pond 4	112.0
	Total	184.5

### Outfall Description

<b>Outfall 003. Active. Final Outfall. Pond 4 Effluent.</b>			
Latitude: 46.91040521	Longitude: 98.51072916	County: Stutsman	
Township: 140	Range: 62	Section: 28	QQ: DBC
Receiving Stream: Unnamed Tributary to Seven Mile Coulee		Classification: Class III Stream	
Outfall Description: This outfall was added in 1996 and is located approximately 0.7 miles south west from the south end of Pond 4.			

<b>Outfall 001. Inactive. Outfall</b>			
Latitude: 46.9136	Longitude: -98.4911	County: Stutsman	
Township: 140	Range: 62	Section: 27	QQ:
Receiving Stream:		Classification:	
Outfall Description: This outfall was made inactive in 1996. No discharge shall occur from this outfall.			

<b>Outfall 002. Inactive. Outfall. Irrigation</b>			
Latitude: 46.9136	Longitude: -98.4911	County: Stutsman	
Township: 140	Range: 62	Section: 27	QQ:
Receiving Stream:		Classification:	
Outfall Description: Prior to 1993 this outfall was used to irrigate the effluent from Pond 4. This outfall was made inactive in 2002. No discharge shall occur from this outfall.			

### PERMIT STATUS

The department issued the previous permit for the facility on October 1, 2014 and the permit was modified on September 01, 2017. The previous permit had effluent limits on the following parameters: 5-day Biological Oxygen Demand (BOD<sub>5</sub>), pH, Total Suspended Solids (TSS), Oil and Grease, Ammonia as N, Total Residual Chlorine, Total Chromium, and Total Zinc.

The department has been in contact with Cargill to obtain information to reissue their permit. The department received EPA applications Form 1, and Form 2E, on October 23, 2018. The application was accepted by the department February 20, 2019. Effluent sample data has been provided to the department through official laboratory reports, discharge monitoring reports, and the permit application Form 2E.

**SUMMARY OF COMPLIANCE WITH PREVIOUS PERMIT ISSUED**

The department's assessment of the compliance is based on review of the facility's Discharge Monitoring Report (DMR) forms and inspections conducted by the department. One (1) inspection of the facility has been conducted from October 1, 2014 to December 31, 2018. The facility had effluent limitation exceedances in October 2014, November 2014, May 2015, June 2016, and October 2018 (**Table 4**). The facility did not have effluent limitation exceedances from November 2018 to December 2018 (**Table 4**).

Cargill is an intermittent discharger. A summary of the data follows:

Table 3: Summary of DMR data from 10/01/2014 – 12/31/2018.

Disch Pt	Location	Parameter	Ave Conc	Range	Units	Ave Load	Max Load	Max Load Units
003A	Effluent	Ammonia as Nitrogen	7.11	1.27 - 16.8	mg/L	N/A	N/A	N/A
003A	Effluent	Biochemical Oxygen Demand	9.18	2.1 - 24.3	mg/L	N/A	N/A	N/A
003A	Effluent	Boron Total ug/L	0.53	0.38 - 1.08	ug/L	N/A	N/A	N/A
003A	Effluent	Chromium Total ug/l	0.05	0.049 - 0.05	ug/l	N/A	N/A	N/A
003A	Effluent	Discharge Flow in Million Gals	N/A	N/A	N/A	3.20	5	MGD
003A	Effluent	Drain in Million Gallons	N/A	N/A	N/A	N/A	138.3	Mgal
003A	Effluent	E Coli	35.25	1 - 209.8	Num/100 mL	N/A	N/A	N/A
003A	Effluent	Nitrate Nitrite Total	0.52	0.1 - 2.03	mg/l	N/A	N/A	N/A
003A	Effluent	Oil & Grease	N/A	N/A	mg/l	N/A	N/A	N/A
003A	Effluent	Oil and Grease Visual	N/A	N/A	N/A	N/A	0	Y=1; N=0
003A	Effluent	pH	N/A	7.5 - 8.9	S.U.	N/A	N/A	N/A
003A	Effluent	Phosphorus Total	9.90	5.9 - 13.2	mg/L	N/A	N/A	N/A
003A	Effluent	Selenium Total ug/l	0.00	0.002 - 0.011	ug/l	N/A	N/A	N/A
003A	Effluent	Total Days Discharging	N/A	N/A	N/A	N/A	31	d
003A	Effluent	Total Kjeldahl as Nitrogen	9.43	5 - 17.1	mg/l	N/A	N/A	N/A
003A	Effluent	Total Residual Chlorine	0.19	0 - 1.05	mg/l	N/A	N/A	N/A
003A	Effluent	Total Suspended Solids	15.62	2 - 61	mg/l	N/A	N/A	N/A
003A	Effluent	Zinc Total ug/l	0.05	0.049 - 0.05	ug/l	N/A	N/A	N/A

**Summary of DMR Data Excursions**

Eight (8) excursions occurred from October 1, 2014 through December 31, 2018 for Cargill. Two (2) exceedances were 40 percent or greater above the limit.

Table 4: DMR concentration exceedances for Cargill from 10/01/2014-12/31/2018.

Disch Pt	Location	Month	Parameter	Min Conc	Avg Conc	Max Conc	Units Conc	Excursions	TRC Exceedance
003A	Effluent	10/1/2014	Chlorine Tot Res	1.05	1.05	1.05	mg/l	2	0
003A	Effluent	11/1/2014	TSS	33	34.5	37	mg/l	1	0
003A	Effluent	5/1/2015	Chlorine Tot Res	1.05	1.05	1.05	mg/l	2	-1
003A	Effluent	6/1/2016	TSS	14	37.2	61	mg/l	2	-1
003A	Effluent	10/1/2018	TSS	10	12.5	15	mg/l	1	0

**PROPOSED PERMIT LIMITS AND SELF MONITORING REQUIREMENTS**

The discharge of wastewater generated in the malting industry is not covered by Federal Effluent Limitations Guidelines and Standards. In May 2018, the facility stopped producing malted barley and ceased operations at the facility October 31, 2018. The only wastewater produced at the facility is groundwater from the barley sump pump and stormwater runoff from the roof tops of the buildings at the facility. The proposed permit limitations are based on Best Professional Judgment (BPJ) and the Standards of Quality for Waters of the State (WQS).

**Effluent Limitations**

The permittee must limit and monitor all discharges as specified below:

Table 5: Effluent Limitations and Monitoring Requirements <b>Outfall 003</b>					
Parameter	Effluent Limitations				
	Quantity		Concentration		
	Avg. Monthly Limit	Daily Maximum Limit	Avg. Monthly Limit	Avg. Weekly Limit	Daily Maximum Limit
Biochemical Oxygen Demand (BOD <sub>5</sub> )	*	*	25 mg/l	45 mg/l	*
Total Suspended Solids (TSS), mg/l	*	*	*	*	100 mg/l
Oil and Grease, visual	*	Report Yes or No	*	*	*
Oil and Grease, mg/l 1/ pH 2/	*	*	*	*	10 mg/l
	Between 6.0 to 9.0 S.U.				
Flow Effluent, MGD	Report Avg. Monthly Value	*	*	*	*
Total Drain, MGAL	*	Report Semi-Annual Total	*	*	*
<p>*. This parameter is not limited. However, the department may impose limitations based on sample history and to protect the receiving waters.</p> <p>1/ If an oil sheen or floating oil is observed in the discharge, a grab sample shall be immediately taken, analyzed and reported. The sample shall not exceed 10 mg/l.</p> <p>2/ The pH, an instantaneous limitation, shall be between 6.0 s.u. and 9.0 s.u. Any single analysis and or measurement beyond this limitation shall be considered a violation of the conditions of this permit.</p> <p>Stipulations:</p> <p>The dates of discharge, frequency of analyses, total number of gallons discharged, discharge flow rates, and number of exceedances shall also be included on the Discharge Monitoring Reports (DMR).</p> <p>Samples taken in compliance with the monitoring requirements specified in this permit shall be taken prior to leaving the facility property or entering the receiving stream.</p> <p>There shall be no discharge of floating solids or visible foam in other than trace amounts.</p> <p>The department may specify additional discharge conditions or restrictions at any time to maintain water quality standards.</p>					



### SELF-MONITORING REQUIREMENTS

All effluent samples shall be collected at a point following the addition of all waste streams and prior to entering the Seven Mile Coulee.

Table 6: Self-Monitoring Requirements for <b>Outfall 003</b>		
Effluent Parameter	Frequency	Sample Type
BOD <sub>5</sub> , mg/L	Weekly	Grab
TSS, mg/L	Weekly	Grab
Oil and Grease, visual	Weekly	Visual
Oil and Grease, mg/l	Conditional/Weekly	Grab
pH	Weekly	Grab
Flow Effluent, MGD	Monthly	Calculated
Total Drain, MGAL	Semi-Annual	Calculated

### SURFACE WATER QUALITY-BASED EFFLUENT LIMITS

The North Dakota State Water Quality Standards (NDAC Chapter 33.1-16-02.1) are designed to protect existing water quality and preserve the beneficial uses of North Dakota's surface waters. Wastewater discharge permits must include conditions that ensure the discharge will meet the surface water quality standards. Water quality-based effluent limits may be based on an individual waste load allocation or on a waste load allocation developed during a basin wide total maximum daily load (TMDL) study. TMDLs result from a scientific study of the water body and are developed in order to reduce pollution from all sources.

Currently, the stream reach of the Seven Mile Coulee that the facility discharges is listed as impaired under Section 303(d) for not supporting recreation due to *Escherichia coli*. The stream reach is listed as high priority for TMDL development. Total Maximum Daily Loading or an alternative plan development is anticipated within the next two years.

Due to the ceasing operations of processed wastewater, the discharge of *E. coli* is not anticipated. The department proposes to not include *E. coli* limitations but may need to reassess *E. coli* once a TMDL has been developed.

#### Numerical Criteria for the Protection of Aquatic Life and Recreation

Numerical water quality criteria are listed in the water quality standards for surface waters (NDAC Chapter 33.1-16-02.1). They specify the maximum levels of pollutants allowed in receiving water to protect aquatic life and recreation in and on the water. The department uses numerical criteria along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits.

#### Numerical Criteria for the Protection of Human Health

The U.S. EPA has published numeric water quality criteria for the protection of human health that are applicable to dischargers. These criteria are designed to protect humans from exposure to pollutants linked to cancer and other diseases, based on consuming fish and shellfish and drinking contaminated surface waters. The water quality standards also include radionuclide criteria to protect humans from the effects of radioactive substances.

### **Narrative Criteria**

Narrative water quality criteria (NDAC Chapter 33.1-16-02.1-08) limit concentrations of pollutants from exceeding applicable standards of the receiving waters. The department adopted a narrative biological goal solely to provide an additional assessment method that can be used to identify impaired surface waters.

### **Antidegradation**

The purpose of North Dakota's Antidegradation Policy (NDAC Chapter 33.1-16-02(Appendix IV)) is to:

- Provide all waters of the state one of three levels of antidegradation protection.
- Determine whether authorizing the proposed regulated activity is consistent with antidegradation requirements.

The department's fact sheet demonstrates that the existing and designated uses of the receiving water will be protected under the conditions of the proposed permit.

### **Mixing Zones**

The department's WQS contain a Mixing Zone and Dilution Policy and Implementation Procedure, NDAC Chapter 33.1-16-02.1 (Appendix III). This policy addresses how mixing and dilution of point source discharges with receiving waters will be addressed in developing chemical-specific and whole effluent toxicity discharge limitations for point source discharges. Depending upon site-specific mixing patterns and environmental concerns, some pollutants/criteria may be allowed a mixing zone or dilution while others may not. In all cases, mixing zone and dilution allowances shall be limited, as necessary, to protect the integrity of the receiving water's ecosystem and designated uses.

## **EVALUATION OF SURFACE WATER QUALITY-BASED EFFLUENT LIMITS FOR NUMERIC CRITERIA**

**Outfall 003:** Final discharge point for the barley sump pump and stormwater runoff. This point has been modified to be an overflow point from pond 4. This point was the final discharge point for process and non-process wastewater.

### **Biochemical Oxygen Demand (BOD<sub>5</sub>)**

**Outfall 003:** The department has reviewed the BOD<sub>5</sub> data and sampling frequency for this parameter. No excursions occurred for this parameter. The department proposes to continue with the effluent limitations of 25.0 mg/l (30-day arithmetic average) and 45.0 mg/l (7-day average maximum) with a sampling frequency of weekly.

This is based on NDAC 33.1-16-01-30, NDAC 33.1-16-02.1, and the previous permit.

### **Total Suspended Solids (TSS)**

**Outfall 003:** The department has reviewed the TSS data and the sampling frequency. Four (4) excursion occurred for this parameter and one excursion exceeded the TRC. The department proposes an effluent limitation of 100 mg/l (daily maximum) and a sampling frequency of weekly.

The department proposes this limitation due to all barley malting operations being ceased at the facility and the wastewater ponds having been emptied of process and non-process wastewater. The only wastewater that has a potential to discharge is groundwater from the barley sump pump and stormwater that is collected from roof tops.

The TSS limitation is based upon BPJ as the limitation is similar to the department's temporary discharge general permit (NDG070000) and the baseline limitation for the industrial stormwater general permit (NDR050000).

### **Oil and Grease Visual**

**Outfall 003:** The department has reviewed the oil and grease data and sampling frequency. No excursions occurred for this parameter. The department proposes weekly visual checks when discharges occur. This is based upon the previous permit, BPJ and NDAC 33.1-16-02.1.

### **Oil and Grease**

**Outfall 003:** The department has reviewed the oil and grease data and sampling frequency. No excursions occurred for this parameter. A determination was made to continue with a limit of 10.0 mg/L (daily maximum) and change the sampling frequency of conditional/weekly. Sampling is only required if a visible sheen is observed on the discharge. This is based upon the previous permit and BPJ.

### **pH**

**Outfall 003:** The department has reviewed the pH data and sampling frequency. No excursions occurred for this parameter. The department proposes to continue with a pH limitation of shall be between 6.0 and 9.0 S.U. with a sampling frequency of weekly.

The limitations for pH are based on NDAC 33.1-16-02.1 and the previous permit.

### ***E. coli***

**Outfall 003:** The department has reviewed the *E. coli* data and sampling frequency. The current permit did not contain effluent limitations. The department proposes to remove *E. coli* monitoring due to the potential sources of *E. coli* being removed and no sanitary waste entering the system.

### **Ammonia as N**

**Outfall 003:** The department has reviewed the Ammonia as N data and sampling frequency. No excursions occurred for this parameter as the facility met the permits special conditions. The department proposes to not include effluent limits nor monitoring for this parameter due to all barley malting operations being ceased at the facility and the wastewater ponds having been emptied of process and non-process wastewater. The only wastewater that has a potential to discharge is groundwater from the barley sump pump and stormwater that is collected from roof tops.

### **Phosphorus, Total**

**Outfall 003:** The department has reviewed the Phosphorus, Total data and sampling frequency. The department proposes to not include monitoring for this parameter due to all barley malting operations being ceased at the facility and the wastewater ponds having been emptied of process and non-process wastewater. The only wastewater that has a potential to discharge is groundwater from the barley sump pump and stormwater that is collected from roof tops.

### **Nitrogen, Total**

**Outfall 003:** The department has reviewed the Nitrogen, Total data and sampling frequency. The department proposes to not include monitoring for this parameter due to all barley malting operations being ceased at the facility and the wastewater ponds having been emptied of process and non-process wastewater. The only wastewater that has a potential to discharge is groundwater from the barley sump pump and stormwater that is collected from roof tops.

### **Total Residual Chlorine**

**Outfall 003:** The department has reviewed the Total Residual Chlorine data and sampling frequency. Four (4) excursions occurred for this parameter and one (1) excursion exceeded the TRC. A detected amount of total residual chlorine has not occurred since May 2015. The department proposes to not include effluent limits nor monitoring for this parameter due to all barley malting operations being ceased at the facility and the wastewater ponds having been emptied of process and non-process wastewater. Chlorine was being added to the malting process at the request of the customer. The facility also eliminated the cooling tower blow down and boiler blow down wastewater streams. The only wastewater that has a potential to discharge is groundwater from the barley sump pump and stormwater that is collected from roof tops.

### **Total Zinc**

**Outfall 003:** The department has reviewed the total zinc data and sampling frequency. The department compared the maximum total zinc result with the WQS (**Appendix C**). The department determined there is no reasonable potential for a WQS exceedance.

The department proposes to not include effluent limits or monitoring for this parameter due to all barley malting operations being ceased at the facility and the wastewater ponds having been emptied of process and non-process wastewater. The facility also eliminated the cooling tower blow down and boiler blow down wastewater streams. The only wastewater that has a potential to discharge is groundwater from the barley sump pump and stormwater that is collected from roof tops.

### **Total Chromium**

**Outfall 003:** The department has reviewed the total chromium data and sampling frequency. The department compared the maximum total chromium result with the WQS (**Appendix C**). The department determined there is no reasonable potential for a WQS exceedance.

The department proposes to not include effluent limits nor monitoring for this parameter due to all barley malting operations being ceased at the facility and the wastewater ponds having been emptied of process and non-process wastewater. The facility also eliminated the cooling tower

blow down and boiler blow down wastewater streams. The only wastewater that has a potential to discharge is groundwater from the barley sump pump and stormwater that is collected from roof tops.

### **Total Boron**

**Outfall 003:** The department has reviewed the total boron data and sampling frequency. The department compared the maximum total boron result with the WQS (**Appendix C**). The department determined there is no reasonable potential for a WQS exceedance. The department has determined to remove monitoring for this parameter.

### **Total Selenium**

**Outfall 003:** The department has reviewed the total selenium data and sampling frequency. The department compared the maximum total selenium result with the WQS (**Appendix C**). The department determined there is no reasonable potential for a WQS exceedance. The department has determined to remove monitoring for this parameter.

### **Human Health**

The department determined the applicant's discharge is unlikely to contain chemicals regulated to protect human health. The department will re-evaluate this discharge for impacts to human health at the next permit reissuance.

### **Biosolids**

Currently the department does not have the authority to regulate biosolids. Therefore, you are required under the Direct Enforceability provision of 40 CFR §503.3(b) to meet the applicable requirements of the regulation.

### **Test Procedures**

The collection and transportation of all samples shall conform to EPA preservation techniques and holding times. All laboratory tests shall be performed by a North Dakota certified laboratory in conformance with test procedures pursuant to 40 CFR 136, unless other test procedures have been specified or approved by EPA as an alternate test procedure under 40 CFR 136.5. The method of determining the total amount of water discharged shall provide results within 10 percent of the actual amount.

## **OTHER PERMIT CONDITIONS**

### **Special Conditions**

The department proposes no other permit conditions at this time.

## **PERMIT ISSUANCE PROCEDURES**

### **Permit Modifications**

The department may modify this permit to impose numerical limits, if necessary to comply with water quality standards for surface waters, with sediment quality standards, or with water quality standards for ground waters, based on new information from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

The department may also modify this permit to comply with new or amended state or federal regulations.

FACT SHEET FOR NDPDES PERMIT ND0025925

CARGILL MALTING CO - SPIRITWOOD

**EXPIRATION DATE: September 30, 2024**

Page 16 of 22

**Proposed Permit Issuance**

This proposed permit meets all statutory requirements for the department to authorize a wastewater discharge. The permit includes limits and conditions to protect human health and aquatic life, and the beneficial uses of waters of the State of North Dakota. The department proposes to issue this permit for a term of five (5) years.

DRAFT

## APPENDIX A - PUBLIC INVOLVEMENT INFORMATION

The department proposes to reissue a permit to **Cargill Malting Company**. The permit includes wastewater discharge limits and other conditions. This fact sheet describes the facility and the department's reasons for requiring permit conditions.

The department will place a Public Notice of Draft on **July 26, 2019** in the **Jamestown Sun** to inform the public and to invite comment on the proposed draft North Dakota Pollutant Discharge Elimination System permit and fact sheet.

The Notice –

- Tells where copies of the draft permit and fact sheet are available for public evaluation.
- Offers to provide assistance to accommodate special needs.
- Urges people to submit their comments before the end of the comment period.
- Informs the public that if there is significant interest, a public hearing will be scheduled.

You may obtain further information from the department by telephone, 701.328.5210 or by writing to the address listed below.

North Dakota Department of Environmental Quality  
Division of Water Quality  
918 East Divide Avenue, 4<sup>th</sup> Floor  
Bismarck, ND 58501

The primary author of this permit and fact sheet is Patrick Schuett.

**North Dakota Department of Environmental Quality Public Notice  
Reissue of an NDPDES Permit**

Public Notice Date: 7/26/2019      Public Notice Number: ND-2019-013

**Purpose of Public Notice**

The Department intends to reissue the following North Dakota Pollutant Discharge Elimination System (NDPDES) Discharge Permit under the authority of Section 61-28-04 of the North Dakota Century Code.

**Permit Information**

Application Date: 10/23/2018      Application Number: ND0025925

Applicant Name: Cargill Malting Co  
Mailing Address: 15401 McGinty Rd W, Wayzata, MN 55391  
Telephone Number: 952.742.5927

Proposed Permit Expiration Date: 9/30/2024

**Facility Description**

The reapplication is for the discharge of sump pump water from the storage bins and site runoff. The discharge point is located in the SW 1/4 of the NW 1/4 of the SE 1/4 of Section 28, Township 140 N, Range 62 W. Any discharge would be from Outfall 003 to an unnamed tributary of Seven Mile Coulee, a Class III stream.

**Tentative Determinations**

Proposed effluent limitations and other permit conditions have been made by the Department. They assure that State Water Quality Standards and applicable provisions of the FWPCA will be protected.

**Information Requests and Public Comments**

Copies of the application, draft permit, and related documents are available for review. Comments or requests should be directed to the ND Dept of Env Quality, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947 or by calling 701.328.5210.

All comments received by August 27, 2019 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.



## APPENDIX B – DEFINITIONS

### DEFINITIONS Standard Permit BP 2019.05.29

1. “**Act**” means the Clean Water Act.
2. “**Average monthly discharge limitation**” means the highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month.
3. “**Average weekly discharge limitation**” means the highest allowable average of “daily discharges” over a calendar week, calculated as the sum of all “daily discharges” measured during a calendar week divided by the number of “daily discharges” measured during that week.
4. “**Best management practices**” (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.
5. “**Bypass**” means the intentional diversion of waste streams from any portion of a treatment facility.
6. “**Composite**” sample means a combination of at least 4 discrete sample aliquots, collected over periodic intervals from the same location, during the operating hours of a facility not to exceed a 24 hour period. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.
7. “**Daily discharge**” means 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 limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the “daily discharge” is calculated as the average measurement of the pollutant over the day.
8. “**Department**” means the North Dakota Department of Environmental Quality, Division of Water Quality.
9. “**DMR**” means discharge monitoring report.
10. “**EPA**” means the United States Environmental Protection Agency.
11. “**Geometric mean**” means the  $n^{\text{th}}$  root of a product of  $n$  factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.
12. “**Grab**” for monitoring requirements, means a single "dip and take" sample collected at a representative point in the discharge stream.

13. "**Instantaneous**" for monitoring requirements, means a single reading, observation, or measurement. If more than one sample is taken during any calendar day, each result obtained shall be considered.
14. "**Maximum daily discharge limitation**" means the highest allowable "daily discharge."
15. "**Salmonid**" means of, belonging to, or characteristic of the family Salmonidae, which includes the salmon, trout, and whitefish.
16. "**Sanitary Sewer Overflows (SSO)**" means untreated or partially treated sewage overflows from a sanitary sewer collection system.
17. "**Severe property damage**" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
18. "**Total drain**" means the total volume of effluent discharged.
19. "**Upset**" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

**APPENDIX C – DATA AND TECHNICAL CALCULATIONS**

No technical calculations were utilized to determine effluent limitations. Limitations are based on NDAC 33-16-02.1 and BPJ.

**Reasonable Potential**

**Metals Review**

The NDDoH has developed the following tool to evaluate a single sample result to the North Dakota Standards of Quality for Waters of the State. A detailed explanation of the calculations and limits for the parameters listed can be found in ch 33-16-02.1-9 Table 1, 01/2007.

Parameters indicated as "HD-Hardness Dependent" are less toxic as the calcium carbonate hardness of the receiving stream increases. The calcium carbonate hardness of the effluent or the receiving stream is entered above. A hardness value in grains per gallon can also be entered.

Items in bold indicate a parameter that needs further evaluation. Parameters listed above must be analyzed using an EPA approved method that has a detection limit at or below the limits as listed in the current version of the North Dakota Standards of Quality for Waters of the State ch33-16-02.

Facility Name		Cargill Malting - Spiritwood			Print Date:	2/26/2019	
Location		003			Below are the current or calculated acute and chronic standards based on the data entered.		
Enter Grains/Gallon or		0					
Hardness - Total (CaCO3) mg/l		238					
Multiplying Factor:							
Enter Concentration Values					µg/l		µg/l
Parameter		Detect	mg/l	µg/l	µg/l	Acute	Chronic
Antimony				0			
Arsenic				0		340	150
Boron				1.08	<b>1.08</b>	750	
Beryllium				0			
Cadmium	HD			0		5.2	0.51
Chromium - Total				0.05	<b>0.05</b>		
Chromium (III)	HD			0		3668	175
Chromium (VI)				0		16	11
Copper	HD			0		32	19.6
Lead	HD			0		246	19.6
Mercury				0		1.7	0.012
Molybdenum - Total				0			
Nickel	HD			0		977	108.6
Selenium				0.011	<b>0.011</b>	20	5
Silver	HD			0		17	
Thallium				0			
Zinc	HD			0.05	<b>0.05</b>	250	249.8
Cyanide - Total				0		22	5.2
Phenols				0			

**Comments:**

The maximum values reported for each parameter from the 24 discharges that occurred from 10/01/2014 - 12/31/2018 were used. Non-detects were entered at the detection limit value.

Total Hardness (CaCO3) was from the permit application received for the current permits reissuance.

**APPENDIX D – RESPONSE TO COMMENTS**

Comments received during the public notice/comment period to be placed here.

DRAFT