



STATE OF MINNESOTA
Minnesota Pollution Control Agency

Industrial Division

**National Pollutant Discharge Elimination System (NPDES)/
State Disposal System (SDS) Permit MN0050491**

PERMITTEE: Faribault Foods Inc
FACILITY NAME: Faribault Foods - Faribault Division
RECEIVING WATER: Cannon River (Class 2B,3C,4A,4B,5,6 water)

CITY OR TOWNSHIP: Faribault **COUNTY:** Rice
ISSUANCE DATE: August 21, 2009 **EXPIRATION DATE:** July 31, 2014
MODIFICATION DATE: May 3, 2012

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee to operate a disposal system at the facility named above and to discharge from this facility to the receiving water named above, in accordance with the requirements of this permit.

The goal of this permit is to protect water quality in accordance with Minnesota and U.S. statutes and rules, including Minn. Stat. chs. 115 and 116, Minn. R. chs. 7001, 7049, 7050, 7053, 7060, 7090.3000 through 7090.3080, and the U.S. Clean Water Act.

This permit is effective on the issuance date identified above, and supersedes the previous permit that was issued for this facility on August 26, 2003. This permit expires at midnight on the expiration date identified above.

Signature: _____

Jeff Udd, P.E.
Supervisor, Water Quality Permits Unit
Water Section
Industrial Division

for The Minnesota Pollution Control Agency

Submit DMRs to:

Attention: Discharge Monitoring Reports
Minnesota Pollution Control Agency
520 Lafayette Rd N
St Paul, MN 55155-4194

Submit Other WQ Reports to:

Attention: WQ Submittals Center
Minnesota Pollution Control Agency
520 Lafayette Rd N
St Paul, MN 55155-4194

Questions on this permit?

- For DMR and other permit reporting issues, contact:
Jennifer Satnik, 651-757-2692.
- For specific permit requirements or permit compliance status, contact:
Scot Sokola 651-757-2744.
- General permit or NPDES program questions, contact:
MPCA, 651-282-6143 or 1-800-657-3938.

Table of Contents	Page
Permitted Facility Description	3
Topographic Map of Permitted Facility	4
Summary of Stations and Station Locations	5
Limits and Monitoring Requirements	6-10
Chapter 1. Ground Water Stations	11
Chapter 2. Waste Stream Stations	11
Chapter 3. Surface Discharge Stations	11-12
Chapter 4. Industrial Process Wastewater	12-13
Chapter 5. Industrial Spray Irrigation	13-23
Chapter 6. Land Application of Industrial By-Products	23-38
Chapter 7. Stormwater Management	38
Chapter 8. Phosphorus Management Plan	39
Chapter 9. Total Residual Oxidants – Non-Domestic	40
Chapter 10. Total Facility Requirements	40-49

Facility Description

The Faribault Foods - Faribault Division facility (Facility) is located at 128 Northwest 15th Street, Faribault, Rice County, Minnesota. The Facility's land application site is located in the NE ¼ and the N ½ of the SE ¼ of Section 19, T110N, R20W.

The principal activity at this Facility is the processing of dried beans on a year-round basis. Process and clean up wastewater (WS-001) from dried bean processing is generated at a maximum rate of 750,000 gallons per day and an average rate of 500,000 gallons per day. Wastewater is collected in a 16,000 gallon holding basin and is screened and pumped through a 7,000 foot force main to a company-owned and operated spray irrigation site at a maximum rate of 225,000 gallons per day and an average rate of 111,000 gallons per day. Wastewater that is not pumped to the spray irrigation site is discharged to the city wastewater treatment facility.

The spray irrigation site (LA-301) consists of approximately 62 usable acres covered predominantly in reed canary grass and serviced primarily by a single traveling gun. A small portion of the spray irrigation site is covered by an above-ground solid set system. Screened process water that is not pumped to the spray irrigation site is sent to the city sanitary sewer. Bean waste screenings (WS-301) are generated from the process of screening of plant process wastewater. The screened bean waste by-product may be transported to fields for disposal by land application (LA-328).

Ground water quality at the spray irrigation site is monitored by a network of ground water monitoring wells (GW-002, GW-003, GW-005, and GW-06).

Contact cooling water is permitted for discharge (SD-001) at an average rate of 300,000 gallons per day and a maximum rate of 600,000 gallons per day. The cooling water discharge is continuous to the Cannon River (Class 2B, 3C, 4A, 4B, 5, 6 Water) via the city storm sewer. Water treatment additives (anti-scaling) are added directly to the cookers with the water. The cooling water is discharged from the cookers to an internal drain/gutter system and directed to a sump pit where the water is pumped through a bag filter and through a one-pass heat exchanger used to preheat incoming fresh plant water. Upon discharge from the heat exchanger, the water is directed to a sump where dechlorination chemicals are added. At the time of permit issuance, the company is discharging its cooling water to the city wastewater treatment facility.

Sanitary wastewater is discharged to the municipal sewer system.

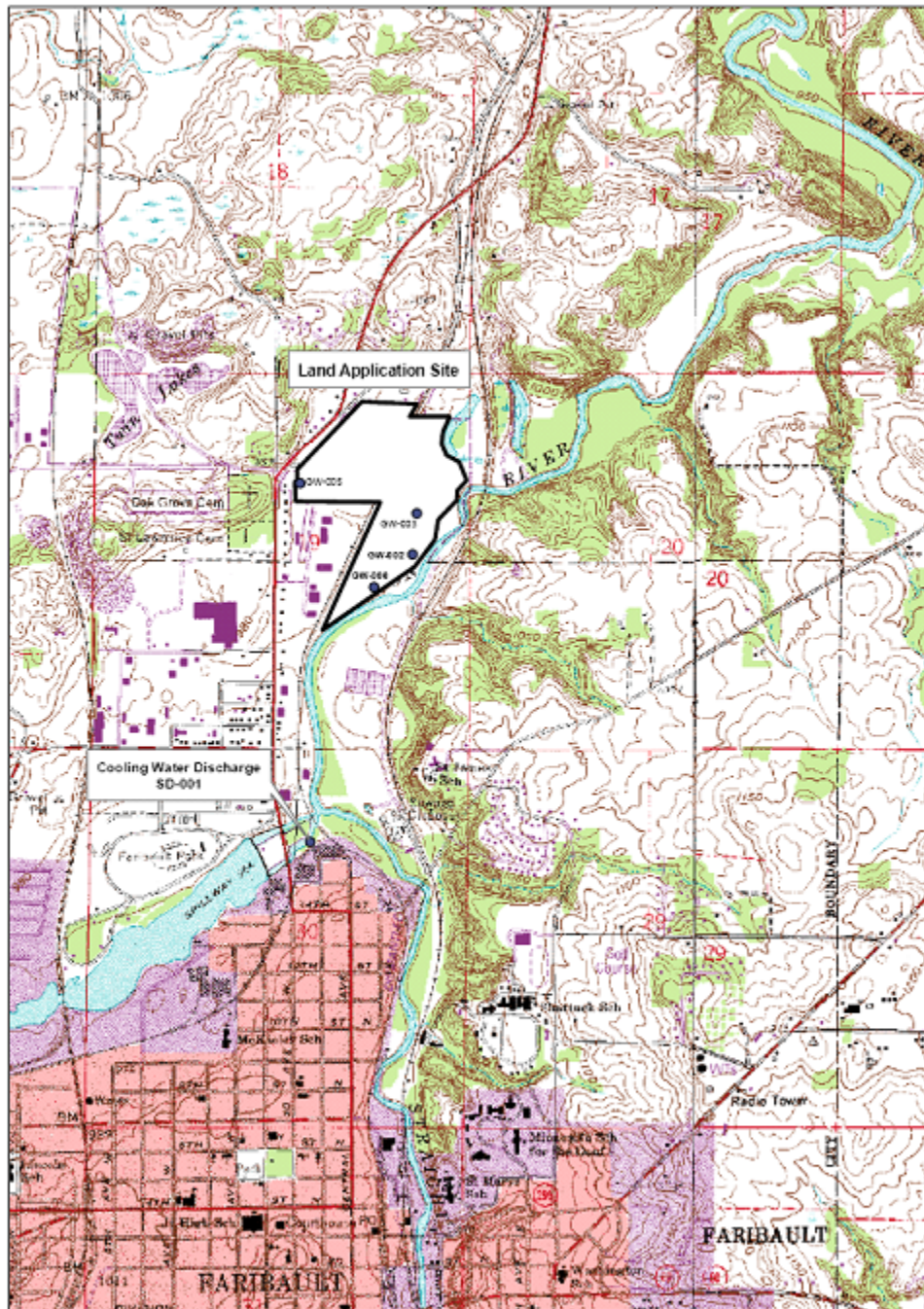
The location of designated monitoring stations is specified on the attached "Summary of Stations and Station Locations" report.

The location of the Facility is shown on the attached topographical map.

The January 1, 1988, calculated design **maximum daily** flow (to surface waters) for this Facility is 0 mgd. In accordance with MPCA rules regarding nondegradation for all waters, the design **maximum daily** flow of the Facility as of January 1, 1988, and associated mass loading are the baseline design flow and mass loading. This baseline flow and mass loading will be used to determine whether nondegradation review is required for any change in the discharge. Any change that results in an increase in design flow greater than 0.2 million gallons per day and an increased loading of one or more pollutants, or any change in a discharge containing a toxic pollutant that results in a mass loading rate likely to increase the concentration of the toxicant in the receiving water by greater than one percent over the baseline quality,

is subject to nondegradation review in accordance with Minn. R. 7050.0185.

Topographic Map of Permitted Facility
 MN0050491, Faribault Foods - Faribault Division
 T110N, R20W, Sections 19 & 30
 Faribault, Rice County, Minnesota



Map produced by MPCA Staff 4/1/09
 Source: Little Chicago, Northfield, Faribault & Cannon City Quads
 Scale: 1:24,000

0 0.2 0.4 0.8 Miles



DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT**Land Application Stations**

<u>Station</u>	<u>Type of Station</u>	<u>Local Name</u>	<u>PLS Location</u>
LA301	Application Site, Spray with Soils Tests	Spray Irrigation Site	NE Quarter of the Section 19, Township 110 North, Range 20 West

Waste Stream Stations

<u>Station</u>	<u>Type of Station</u>	<u>Local Name</u>	<u>PLS Location</u>
WS301	Solids to Land Treatment/Application	Food Related Industrial By-Product	NE Quarter of the Section 19, Township 110 North, Range 20 West

Ground Water Stations

<u>Station</u>	<u>Type of Station</u>	<u>Local Name</u>	<u>PLS Location</u>
GW002	Well, Downgradient	GW Monitoring Well 2 - Spray site	NE Quarter of Section 19, Township 110 North, Range 20 West
GW003	Well, Downgradient	GW Monitoring Well 3 - Spray site	NE Quarter of Section 19, Township 110 North, Range 20 West
GW005	Well, Upgradient	GW Monitoring Well 5 - Spray site	NE Quarter of Section 19, Township 110 North, Range 20 West
GW006	Well, Downgradient	GW Monitoring Well 6 - Spray site	SE Quarter of Section 19, Township 110 North, Range 20 West

Surface Discharge Stations

<u>Station</u>	<u>Type of Station</u>	<u>Local Name</u>	<u>PLS Location</u>
SD001	Storm Sewer To Surface Water	Contact Cooling Water Discharge	NE Quarter of Section 30, Township 110 North, Range 20 West

Waste Stream Stations

<u>Station</u>	<u>Type of Station</u>	<u>Local Name</u>	<u>PLS Location</u>
WS001	Intermediate: WW to Land	Process wastewater - Outfall 401	NE Quarter of Section 19, Township 110 North, Range 20 West

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The Permittee shall comply with the limits and monitoring requirements as specified below.

GW 002, GW 003, GW 006

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Chloride, Total	250	mg/L	Instantaneous Maximum Intervention	Jun-Nov	Grab	1 x Month	6
Elevation of GW Relative to Mean Sea Level	Monitor Only	feet	Single Value	Jun-Nov	Measurement, Instantaneous	1 x Month	12
Nitrite Plus Nitrate, Total (as N)	2.5	mg/L	Instantaneous Maximum Intervention	Jun-Nov	Grab	1 x Month	6
Nitrogen, Ammonia, Total (as N)	Monitor Only	mg/L	Single Value	Jun-Nov	Grab	1 x Month	8
Nitrogen, Kjeldahl, Total	Monitor Only	mg/L	Single Value	Jun-Nov	Grab	1 x Month	8
pH, Field	Monitor Only	SU	Single Value	Jun-Nov	Grab	1 x Month	3
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Single Value	Jun-Nov	Grab	1 x Month	8
Specific Conductance, Field	Monitor Only	umh/cm	Single Value	Jun-Nov	Grab	1 x Month	3
Temperature, Water (C)	Monitor Only	Deg C	Single Value	Jun-Nov	Grab	1 x Month	3

GW 005

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Chloride, Total	Monitor Only	mg/L	Single Value	Jun-Nov	Grab	1 x Month	6
Elevation of GW Relative to Mean Sea Level	Monitor Only	feet	Single Value	Jun-Nov	Measurement, Instantaneous	1 x Month	12
Nitrite Plus Nitrate, Total (as N)	Monitor Only	mg/L	Single Value	Jun-Nov	Grab	1 x Month	6
Nitrogen, Ammonia, Total (as N)	Monitor Only	mg/L	Single Value	Jun-Nov	Grab	1 x Month	6
Nitrogen, Kjeldahl, Total	Monitor Only	mg/L	Single Value	Jun-Nov	Grab	1 x Month	6
pH, Field	Monitor Only	SU	Single Value	Jun-Nov	Grab	1 x Month	3
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Single Value	Jun-Nov	Grab	1 x Month	6
Specific Conductance, Field	Monitor Only	umh/cm	Single Value	Jun-Nov	Grab	1 x Month	3
Temperature, Water (C)	Monitor Only	Deg C	Single Value	Jun-Nov	Grab	1 x Month	3

LA 301

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Area Of Disposal, Used	62	acres	Instantaneous Maximum	Apr-Nov	Measurement	1 x Year	1
Crop Yield	Monitor Only	ton/ac	Single Value	Apr-Nov	Estimate	1 x Year	9
Flow Application Rate	Monitor Only	MGacyr	Calendar Year Total	Jan-Dec	Calculation	1 x Year	7
Nitrogen, Total Annual Loading Rate	300	lbacyr	Calendar Year Total Intervention	Apr-Nov	Calculation	1 x Year	14

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The Permittee shall comply with the limits and monitoring requirements as specified below.

LA 301

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Organic Matter, Total In Soil	Monitor Only	%	Single Value	Apr-Nov	Composite	1 x Year	10
pH, 1 To 1 Soil To Water	Monitor Only	SU	Single Value	Apr-Nov	Composite	1 x Year	10
Phosphorus, BRAY-1 Ext In Soil	200	ppm	Single Value	Apr-Nov	Composite	1 x Year	13
Phosphorus, Olson Ext in Soil	180	ppm	Single Value	Apr-Nov	Composite	1 x Year	13
Potassium, NH4AC, Exch In Soil	Monitor Only	lb/acr	Single Value	Apr-Nov	Composite	1 x Year	10
Protein, Crop, Crude	Monitor Only	%	Single Value	Apr-Nov	Grab	1 x Year	9
Salts, Water Soluble In Soil	3.0	mmh/cm	Single Value	Apr-Nov	Composite	1 x Year	10

SD 001

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Composite	2 x Month	5
Chlorine, Total Residual	0.038	mg/L	Daily Maximum	Jan-Dec	Grab	2 x Month	15
Flow	Monitor Only	mgd	Calendar Month Average	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Continuous	1 x Day	
pH	9.0	SU	Calendar Month Maximum	Jan-Dec	Grab	2 x Month	2
pH	6.0	SU	Calendar Month Minimum	Jan-Dec	Grab	2 x Month	2
Phosphorus, Total (as P)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Month	
Solids, Total Suspended (TSS)	30	mg/L	Calendar Month Average	Jan-Dec	Composite	2 x Month	5
Temperature, Water (F)	86	Deg F	Daily Maximum	Jan-Dec	Measurement, Instantaneous	2 x Month	11

WS 001

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, 05 Day (20 Deg C)	Monitor Only	mg/L	Calendar Month Average	May-Oct	24-Hour Flow Composite	1 x Week	
BOD, 05 Day (20 Deg C)	Monitor Only	mg/L	Calendar Month Maximum	May-Oct	24-Hour Flow Composite	1 x Week	
Calcium, Total (as Ca)	Monitor Only	mg/L	Calendar Month Average	May-Oct	24-Hour Flow Composite	1 x Week	
Calcium, Total (as Ca)	Monitor Only	mg/L	Calendar Month Maximum	May-Oct	24-Hour Flow Composite	1 x Week	
Chloride, Total	Monitor Only	mg/L	Calendar Month Average	May-Oct	24-Hour Flow Composite	1 x Week	

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The Permittee shall comply with the limits and monitoring requirements as specified below.

WS 001

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Chloride, Total	Monitor Only	mg/L	Calendar Month Maximum	May-Oct	24-Hour Flow Composite	1 x Week	
Flow	12.0	MG	Calendar Year Total	Jan-Dec	Measurement, Continuous	1 x Week	
Flow	Monitor Only	MG	Calendar Month Total	May-Oct	Measurement, Continuous	1 x Week	
Magnesium, Total (as Mg)	Monitor Only	mg/L	Calendar Month Average	May-Oct	24-Hour Flow Composite	1 x Week	
Magnesium, Total (as Mg)	Monitor Only	mg/L	Calendar Month Maximum	May-Oct	24-Hour Flow Composite	1 x Week	
Nitrite Plus Nitrate, Total (as N)	Monitor Only	mg/L	Calendar Month Average	May-Oct	24-Hour Flow Composite	1 x Week	
Nitrite Plus Nitrate, Total (as N)	Monitor Only	mg/L	Calendar Month Maximum	May-Oct	24-Hour Flow Composite	1 x Week	
Nitrogen, Ammonia, Total (as N)	Monitor Only	mg/L	Calendar Month Average	May-Oct	24-Hour Flow Composite	1 x Week	
Nitrogen, Ammonia, Total (as N)	Monitor Only	mg/L	Calendar Month Maximum	May-Oct	24-Hour Flow Composite	1 x Week	
Nitrogen, Kjeldahl, Total	Monitor Only	mg/L	Calendar Month Average	May-Oct	24-Hour Flow Composite	1 x Week	
Nitrogen, Kjeldahl, Total	Monitor Only	mg/L	Calendar Month Maximum	May-Oct	24-Hour Flow Composite	1 x Week	
pH	Monitor Only	SU	Calendar Month Maximum	May-Oct	Grab	1 x Week	4
pH	Monitor Only	SU	Calendar Month Minimum	May-Oct	Grab	1 x Week	4
Sodium Adsorption Ratio (SAR)	8.5	ratio	Calendar Month Average Intervention	May-Oct	Calculation	1 x Week	
Sodium, Total (as Na)	Monitor Only	mg/L	Calendar Month Average	May-Oct	24-Hour Flow Composite	1 x Week	
Sodium, Total (as Na)	Monitor Only	mg/L	Calendar Month Maximum	May-Oct	24-Hour Flow Composite	1 x Week	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Average	May-Oct	24-Hour Flow Composite	1 x Week	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	May-Oct	24-Hour Flow Composite	1 x Week	

WS 301

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Chloride, Dry Weight (as Cl)	Monitor Only	mg/kg	Single Value	Jan-Dec	Grab	1 x Year	
Nitrogen, Ammonia, Dry Weight	Monitor Only	%	Single Value	Sep-Aug	Grab	1 x Year	
Nitrogen, Kjeldahl, Total, Solid Fraction, Dry Weight	Monitor Only	%	Single Value	Sep-Aug	Grab	1 x Year	
Oil & Grease, Total	Monitor Only	mg/kg	Single Value	Jan-Dec	Grab	1 x Year	
pH	Monitor Only	SU	Single Value	Sep-Aug	Grab	1 x Year	
Phosphorus, Total, Dry Wt (as P2O5)	Monitor Only	%	Single Value	Sep-Aug	Grab	1 x Year	
Sodium, Dry Weight (as Na)	Monitor Only	mg/kg	Single Value	Sep-Aug	Grab	1 x Year	

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The Permittee shall comply with the limits and monitoring requirements as specified below.

WS 301

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Solids, Total	Monitor Only	%	Single Value	Sep-Aug	Grab	1 x Year	
Solids, Total Volatile, Percent of Total	Monitor Only	%	Single Value	Sep-Aug	Grab	1 x Year	

Notes:

1 -- A measure of acreage to which waste is applied.

2 -- Analyze immediately.

3 -- Analyze immediately. Monitoring wells shall be sampled in accordance with "Minnesota Pollution Control Agency, Water Quality Division: Sampling Protocol for Ground Water Monitoring Wells, July 1997," Triplett, et. al.

4 -- Analyze in the field, within one hour of sample collection.

5 -- Composite samples shall consist of a minimum of three grab samples taken over a three-hour period during which the facility is in full operation.

6 -- If background water quality exceeds the intervention limit, the intervention limit shall be the same as the background concentration.

7 -- Monitor the volume of waste water that is applied to a spray field, and report this value in the Annual Report.

8 -- Monitoring wells shall be sampled in accordance with "Minnesota Pollution Control Agency, Water Quality Division: Sampling Protocol for Ground Water Monitoring Wells, July 1997," Triplett, et. al.

9 -- Report the date each time a crop is harvested. If a crop is harvested more than once during the cropping season, this characteristic shall be determined for each cutting.

10 -- Soil testing must be conducted on each site that is used for land application before the site is used for the first time and each cropping year a site is used. The composite sample shall consist of a mixture of 15-20 sub-samples taken in the plow layer for every 40 acres.

11 -- Temperature can rise 5 degrees above the natural temperature in stream but in no case shall it exceed 86 degrees F.

12 -- The elevation (feet above mean sea level) of the inner casing of all monitoring wells shall be surveyed in feet to the nearest 1/100th of a foot. Prior to pumping or bailing a well, the water level (depth to water) must be measured and recorded to the nearest 1/100th of a foot.

13 -- The soil test method used for extractable phosphorus in soil is either the Bray P-1 test, or the Olson test; the Olson procedure should be used if the soil pH is 7.4 or higher. Soil testing must be conducted on each site that is used for land application before the site is used for the first time and each cropping year a site is used. The composite sample shall consist of a mixture of 15-20 sub-samples taken in the plow layer for every 40 acres.

14 -- This value is calculated as the flow-weighted sum of the total annual mass Kjeldahl nitrogen and nitrate-plus-nitrite nitrogen applied to the site, divided by the acreage of the site. Limit applies to the sum of all sources of nitrogen applied to the site.

15 -- Whenever chlorine is added or if using chlorinated city water. Analyze immediately. This means within 15 minutes or less of sample collection. A Method Detection Limit and a Reporting Limit must be established for this parameter. The Reporting Limit cannot be greater than 0.1 mg/L.

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Chapter 1. Ground Water Stations

1. Monitoring Wells

- 1.1 The Permittee shall install, maintain and abandon ground water monitoring wells according to the Minnesota Water Well Construction Code, Minnesota Rules, ch. 4725. Damaged or improperly constructed monitoring wells shall be repaired or properly abandoned and replaced. Information on licensed water well contractors is available from the Minnesota Department of Health.
- 1.2 The Permittee shall submit a detailed monitoring well log for each monitoring well at the facility and a detailed US Geological Survey topographical map identifying the location of each well.
- 1.3 Each monitoring well shall be clearly numbered on the outside of the well with either indelible paint or an inscribed number.
- 1.4 The monitoring wells shall be sampled in accordance with "Minnesota Pollution Control Agency, Water Quality Division: Sampling Protocol for Ground Water Monitoring Wells, July 1997," Triplett, et. al. Copies of this publication are available on the internet at <http://www.pca.state.mn.us/water/groundwater/wqsampling.html> or may be obtained from the MPCA by calling 651-282-6143 or 800-657-3938.
- 1.5 Prior to well purging and sampling, depths to ground water shall be measured to the nearest 0.01 foot below the top of the well casing, and ground water elevations shall be reported to the nearest 0.01 foot above mean sea level.
- 1.6 Temperature, specific conductance and pH shall be reported as the final field measurements from well stabilization.

2. Requirements for Specific Stations

- 2.1 GW 002, GW 003, GW 005, GW 006: Submit a monthly DMR monthly by 21 days after the end of each calendar month following permit issuance.

Chapter 2. Waste Stream Stations

1. Requirements for Specific Stations

- 1.1 WS 001: Submit a monthly DMR monthly by 21 days after the end of each calendar month following permit issuance.

2. Sampling Location

- 2.1 Grab and composite samples shall be collected at a point representative of total influent flow to the system.
- 2.2 Samples for Station WS-001 shall be taken at a point representative of the discharge to the spray irrigation site(s).
- 2.3 Samples for Station WS-301 shall be taken at a point representative of the discharge of industrial by-products to the land application site(s).

3. Sampling Frequency

- 3.1 Sampling is required only during periods of discharge to the irrigation site. If there is no discharge during the reporting period, the Permittee shall check the "No Discharge" box on the Discharge Monitoring Report (DMR).

Chapter 3. Surface Discharge Stations

1. Requirements for Specific Stations

- 1.1 SD 001: Submit a monthly DMR monthly by 21 days after the end of each calendar month following permit issuance.

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Chapter 3. Surface Discharge Stations

2. Sampling Location

- 2.1 Samples for Station SD-001 shall be taken at a point representative of the cooling water discharge to the storm sewer.
- 2.2 Samples and measurements required by this permit shall be representative of the monitored activity.

3. Surface Discharges

- 3.1 Floating solids or visible foam shall not be discharged in other than trace amounts.
- 3.2 Oil or other substances shall not be discharged in amounts that create a visible color film.
- 3.3 The Permittee shall install and maintain outlet protection measures at the discharge stations to prevent erosion.

4. Discharge Monitoring Reports

- 4.1 The Permittee shall submit monitoring results for discharges in accordance with the limits and monitoring requirements for this station. If no discharge occurred during the reporting period, the Permittee shall check the "No Discharge" box on the Discharge Monitoring Report (DMR).

Chapter 4. Industrial Process Wastewater

1. Authorization

- 1.1 This chapter authorizes the Permittee to discharge contact cooling water generated at the facility, as described in the 'Facility Description' portion of this permit. This activity is limited by the 'Limits & Monitoring' section of this permit, as well as the other terms and conditions of this permit.
- 1.2 All discharges to surface water shall be free of process wastewater and other wastewater discharges unless specifically authorized by another chapter of this permit.

2. Prohibited Discharges

- 2.1 This permit does not authorize the discharge of sewage, wash water, scrubber water, spills, oil, hazardous substances, or equipment/vehicle cleaning and maintenance wastewaters to ditches, wetlands or other surface waters of the state.
- 2.2 The Permittee shall prevent the routing of pollutants from the facility to a municipal wastewater treatment system in any manner unless authorized by the pretreatment standards of the MPCA and the municipal authority.
- 2.3 The Permittee shall not transport pollutants to a municipal wastewater treatment system that will interfere with the operation of the treatment system or cause pass-through violations of effluent limits or water quality standards.

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Chapter 4. Industrial Process Wastewater

3. Toxic Substance Reporting

- 3.1 The Permittee shall notify the MPCA immediately of any knowledge or reason to believe that an activity has occurred that would result in the discharge of a toxic pollutant listed in Minnesota Rules, pt. 7001.1060, subp. 4 to 10 or listed below that is not limited in the permit, if the discharge of this toxic pollutant has exceeded or is expected to exceed the following levels:
- a. for acrolein and acrylonitrile, 200 ug/L;
 - b. for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol, 500 ug/L;
 - c. for antimony, 1mg/L;
 - d. for any other toxic pollutant listed in Minnesota Rules, pt. 7001.1060, subp. 4 to 10, 100 ug/L; or
 - e. five times the maximum concentration value identified and reported for that pollutant in the permit application. (Minnesota Rules, pt. 7001.1090, subp. 2.A)
- 3.2 The Permittee shall notify the MPCA immediately if the Permittee has begun or expects to begin to use or manufacture as an intermediate or final by-product a toxic pollutant that was not reported in the permit application under Minnesota Rules, pt. 7001.1050, subp. 2.J. (Minnesota Rules, pt. 7001.1090, subp. 2.B)

4. Polychlorinated Biphenyls (PCBs)

- 4.1 PCBs, including but not limited to those used in electrical transformers and capacitors, shall not be discharged or released to the environment.

5. Application for Permit Reissuance

- 5.1 The permit application shall include analytical data as part of the application for reissuance of this permit. These analyses shall be done on individual samples taken during the twelve-month period before the reissuance application is submitted.

Chapter 5. Industrial Spray Irrigation

1. Authorization

- 1.1 This chapter authorizes the Permittee to apply process waste water, as described in the 'Facility Description' section of this permit, to land application sites using a spray irrigation system. This activity is limited by the 'Limits and Monitoring' section of this permit, as well as the other terms and conditions of this permit.

2. Site Management, Limitations, and Restrictions

Site Selection and Use Procedure

- 2.1 Prior to the use of a site for the spray irrigation of industrial waste water for the first time, the Permittee shall obtain written MPCA approval for such use.
- 2.2 The Permittee is responsible for determining that the site meets the limitations identified for Land Application Stations in the 'Limits and Monitoring' section of this permit.

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Chapter 5. Industrial Spray Irrigation

2. Site Management, Limitations, and Restrictions

Hydraulic Loading Rates

- 2.3 Hydraulic loading rate limits are set to prevent ponding and runoff from land application sites. The limitations specified in this part shall not cause any other application limits of this chapter or the 'Limits and Monitoring' section of this permit to be exceeded.

All of the following limitations apply to the spray irrigation of industrial waste water:

- a. The flow application rate shall be limited to 7.2 inches per acre (0.194 MG/ac/yr).
- b. No runoff of industrial waste water from the application site is allowed.
- c. Industrial waste water application shall be limited to prevent the runoff of any industrial waste water mixed with rain water.
- d. Industrial waste water may not be sprayed during any rainfall event that causes runoff from the site.
- e. Uncontaminated storm water may be allowed to drain from a spray irrigation field.
- f. Industrial waste water shall not be applied when the cover crop is dormant as a result of frost or below freezing temperatures.

Miscellaneous Management Practices/Restrictions

- 2.4 All of the following standards apply to the spray irrigation of industrial waste water.

- a. The Permittee shall operate each spray field in a load and rest cycle. The discharge shall be evenly distributed to individual sections of the spray field and allow for sufficient resting periods to maintain the absorptive capacity of the soil.
- b. The spray irrigation system cover crop shall be cut and removed at least twice a year to stimulate growth of vegetation and to remove nutrients from the system. If forage crops are grown, a crop survey must be conducted by a crop expert to determine the percent of all predominant varieties, percent broad leaves, and percent other grasses.
- c. The discharge of industrial waste water to any authorized land application site shall not have physical or chemical characteristics that prevent the proper operation of the land disposal system. The discharge shall be free of material that interferes with the operation of spray nozzles or orifices.

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Chapter 5. Industrial Spray Irrigation

2. Site Management, Limitations, and Restrictions

2.5 Nuisance Conditions. Spray irrigation of wastewater shall be performed so as to minimize adverse effects resulting from odors, noise and aerosol drift. The permittee shall provide reasonable assurance that the land application of wastewater will not cause nuisance conditions. Operational and structural controls, or some combination thereof, may be considered in providing reasonable assurance, and shall be specified in the facility's Sprayfield Management Plan, as required by part 4.1 and described by part 4.4, respectively, of this chapter.

Operational controls include methods such as timing spraying to minimize inconvenience to neighboring residents and to minimize the potential for human contact; and, increasing setback distances. Structural controls include methods such as innovative structural design; use of a weather station with an anemometer; the use of drop nozzle irrigation to minimize spray drift toward public land or access ways; and, aeration.

In the event that the measures or equipment intended to create reasonable assurance no longer function as intended, corrective action (which may include additional maintenance or modifications of the treatment system) shall be taken by the Permittee. The Permittee shall submit a written description of the corrective actions taken to eliminate the nuisance conditions to the MPCA within five (5) days of discovery of the incident. Other corrective action may be required by the Commissioner, as necessary to comply with the requirements of this part.

3. Operator Certification

- 3.1 All industrial spray irrigation activities must be done by or under the supervision of a Type V certified operator. All information submitted to the MPCA related to industrial spray irrigation must be completed and signed by a Type V certified operator.
- 3.2 The Permittee shall employ at least one Type V operator as required in Minn. R. 7048.0500, subp. 1, on site at the Permittee's operations, who will be responsible for the day-to-day operations of the waste water treatment disposal system.

4. Land Application Sprayfield Management Plan

- 4.1 To address the specific operations of the spray irrigation fields; optimize the performance of the treatment system; and, to maintain compliance with Minn. Stat. chs. 115 and 116, as amended, and Minn. R. chs. 7001, 7050, 7053 and 7060, the Permittee shall prepare and implement an updated Sprayfield Management Plan. Submit an updated Sprayfield Management Plan by 60 days after permit issuance.
- 4.2 If the MPCA has not responded to the plan within 60 days of its receipt with comments or requested changes to the plan, the submitted plan will become the facility's operating Sprayfield Management Plan.

If the MPCA determines that the operating Sprayfield Management Plan is not effective in preventing permit violations, the Permittee may be required by the MPCA to revise their Sprayfield Management Plan.
- 4.3 Changes or updates to the Sprayfield Management Plan made by the Permittee shall be submitted to the MPCA with the Industrial Spray Irrigation Annual Report, as described in the 'Annual Report' part of this chapter.

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Chapter 5. Industrial Spray Irrigation

4. Land Application Sprayfield Management Plan

4.4 The Sprayfield Management Plan shall include the following elements, at a minimum:

- a. Facility information, to include the following:
 - i. Sprayfield facility description and maps;
 - ii. Locations of all monitoring locations, such as tile discharges, monitoring wells, etc.; and,
 - iii. General description of sprayfield operation.
- b. A description of the management of process waste water application, including the following:
 - i. Irrigation scheduling (daily, monthly, annually);
 - ii. Irrigation intensity;
 - iii. Loading rates (hydraulic and nutrient);
 - iv. Load/rest cycle;
 - v. Runoff collection, if applicable;
 - vi. Drain tile discharge or collection, if applicable;
 - vii. Process control or test method for tile line discharges required by the Limits and Monitoring section of this permit, and,
 - viii. Soil-moisture monitoring system.
- c. A description of crop management practices, as described by subpart 5 of this part.
- d. Identify areas susceptible to runoff and identify management practices to prevent and control runoff.
- e. Description of the inspection and maintenance program for pipe line breaks and associated irrigation equipment, as required by subpart 3 of the 'Facilities Operation' part of this chapter.
- f. A 'Spill Prevention and Response Procedure', as described by subpart 7 of this part.
- g. A 'Contingency Plan', as described by subpart 8 of this part.
- h. A 'Monitoring Plan', as described by subpart 9 of this part.
- i. A 'Ground Water Monitoring Plan', as described by subpart 10 of this part, if ground water monitoring is required by the 'Compliance Monitoring' part of this chapter, or by another chapter in this permit.

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Chapter 5. Industrial Spray Irrigation

4. Land Application Sprayfield Management Plan

4.5 The description of crop management practices shall include at least the following elements:

- a. List of cover crop type(s);
- b. Description of crop establishment and maintenance procedures;
- c. Schedule for crop harvest and removal;
- d. Description of the methods for measuring crop yield; and,
- e. Methods for conducting the crop survey required by the Limits and Monitoring section of this permit.

4.6 A 'Spill Prevention and Response Procedure' shall be prepared and implemented, and shall include the following elements, at a minimum:

- a. Identification of where spills have occurred and where they have the potential to occur;
 - b. Determination and identification of drainage points for potential spill areas, and develop appropriate spill prevention and containment measures for these areas;
 - c. Detailed description of procedures for notifying state, local, and company personnel in the event of a spill shall be developed and made available to appropriate personnel;
 - d. Detailed procedures for containing and cleaning up spills shall be developed and made available to appropriate personnel;
 - e. A list of all spill control equipment including the equipment location; and,
 - f. An employee training program to inform appropriate personnel of notification and spill response procedures.
- 4.7 A 'Contingency Plan' for managing the spray irrigation system during time periods when irrigation is not possible due to adverse climatic conditions, equipment failure, or in the event the management requirements of subpart(s) 3 and/or 4 of the 'Site Management, Limitations and Restrictions' part of this chapter are violated, shall be prepared and implemented.

The plan should include alternatives such as:

- a. Storage tanks or lagoons;
- b. Additional land;
- c. Set-aside corners or other unused parcels of land;
- d. Transporting processed wastewater;
- e. Processing shutdown; and,
- f. Treatment facilities.

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Chapter 5. Industrial Spray Irrigation

4. Land Application Sprayfield Management Plan

4.8 A 'Monitoring Plan' shall be prepared and implemented, and shall contain the following information, at a minimum:

- a. Sampling point identification;
- b. Sampling protocol for all monitoring points;
- c. Sampling schedule;
- d. List of parameters to be analyzed;
- e. Standard test methods; and,
- f. Reporting limits.

4.9 A 'Ground Water Monitoring Plan' shall be prepared and implemented, and shall include the following elements, at a minimum:

- a. Maps of spray fields, monitoring well locations, and water table contour map(s) illustrating ground water flow direction;
- b. A description of site hydrogeology and soils, including well and boring logs, and cross sections);
- c. A residential well survey (one-mile radius) including well depth and aquifer information; and,
- d. A description of monitoring well sampling procedures. If monitoring wells are sampled by a contractor, a copy of their procedures and quality assurance program shall be provided as part of the 'Ground Water Monitoring Plan'. Refer to the MPCA publication, "Sampling Procedures for Ground Water Monitoring Wells" (July 1997), for further information.

5. Facilities Operation

5.1 A 'Maintenance Plan' to eliminate water quality degradation shall be prepared. The Permittee shall operate the disposal system in accordance with this plan, as approved by the MPCA.

5.2 The Permittee shall at all times maintain in good working order and operate as efficiently as possible all facilities or systems of control installed or used to achieve compliance with the terms and conditions of this permit.

Proper operation and maintenance includes effective performance; adequate funding; adequate operator staffing and training; and, adequate laboratory and process controls, including appropriate quality assurance procedures.

5.3 The Permittee is responsible for insuring system reliability and shall install leak detection equipment and/or implement routine inspection and maintenance programs to prevent pipe line breaks and other associated equipment failures that may endanger human health, public drinking water supplies or the environment. The Permittee shall maintain a record of all inspections, maintenance, and tests conducted, and these records shall be made available to the MPCA upon request.

5.4 Maintenance of the treatment facility that results in impairment of treatment efficiency of the disposal system and/or degradation of water quality shall be scheduled as much as possible during non-critical water quality periods and shall be carried out in a manner approved by the MPCA.

5.5 Necessary in-plant control tests shall be conducted at a frequency adequate to ensure continuous efficient operation of the treatment facility.

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Chapter 5. Industrial Spray Irrigation

5. Facilities Operation

- 5.6 The Permittee shall provide an adequate operating staff which is duly qualified under Minn. R. ch. 9400 and, if applicable, as determined by the MPCA pursuant to Minn. R. 7001.0150, to carry out the operation, maintenance and testing functions required to insure compliance with the conditions of this permit.

6. Compliance Responsibility

Exceedance of Intervention Limit in Ground Water for Nitrate Nitrogen

- 6.1 If there is an exceedance of a ground-water monitoring intervention limit for nitrate nitrogen, the Permittee shall take the following actions:
- a. Determine the validity of the test result and resample if past test results have not exceeded the intervention limit or if the result may be invalid for other reasons.
 - b. Submit a data analysis of the exceedance that includes the following information as a supplement to the Annual Report required by the 'Annual Report' part of this chapter:
 - i. Potential sources of the ground water exceedance and causes for the limit exceedance.
 - ii. An evaluation of the exceedance(s) as compared to past ground water quality data that considers trends and the significance of limit exceedances.
 - iii. Nutrient loading from process waste waters relative to crop uptake and yield, application timing, tile line quality data, soil nitrate levels, and other factors that could contribute to the exceedance for all spray field management areas affecting the monitoring well for the last five years.
 - iv. Tile line discharge quality over the last five years.
 - c. Submit a corrective action plan that describes the steps to be taken to reduce nitrate-nitrogen concentrations in the ground water. The corrective action plan must be updated annually to determine its effectiveness and whether alternative actions are necessary to reduce nitrate nitrogen levels in ground water. The corrective action plan and its updates must be submitted as part of the Annual Report required by the 'Annual Report' part of this chapter.

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Chapter 5. Industrial Spray Irrigation

6. Compliance Responsibility

- 6.2 For an intervention limit exceedance that is greater than or equal to the drinking water standard for nitrate nitrogen of 10 mg/l, or background levels (whichever is greater), the following additional actions must be taken unless MPCA states in writing that these actions are not necessary:
- a. The need for installation of additional wells to determine the extent of ground-water contamination must be evaluated and additional wells installed if needed.
 - b. A ground water receptor survey must be conducted for the area within a 1.0-mile radius of the spray field boundary that includes property owner, property address, well depth, and identification of the aquifer drinking water is drawn from.
 - c. An evaluation of the hydraulic interconnection between the aquifer being monitored and the drinking water aquifer(s) if they are different.
 - d. Sampling and analysis of drinking water wells for nitrate nitrogen within a 1.0-mile radius from the spray field boundary if aquifers are found to be interconnected, and there is a potential that drinking water may be affected by the irrigation of process waste water.
 - e. Other actions as necessary to evaluate the problem and determine appropriate corrective actions to be taken.
 - f. Submit this information as part of the Annual Report required by the 'Annual Report' part of this chapter.

Exceedance of Application Rate for Nitrogen

- 6.3 If the intervention limit for the Nitrogen Application Rate is exceeded, the Permittee shall submit a corrective action plan. The corrective action plan must include detailed information on how nitrogen loading will be managed both on a short and long term basis so that the intervention limit for nitrogen loading is not exceeded and a detailed evaluation and summary of the following information:
- a. Ground water quality trends from monitoring wells for the spray field management area where the exceedance occurred.
 - b. An evaluation of nutrient loading from process waste water relative to crop uptake and yield for all sprayfield management areas over the last five (5) years.
 - c. Tile line discharge quality over the last five (5) years.
 - d. Other information that can assist in providing a more complete evaluation of the possible impacts the exceedance may have on the environment. Examples of this type of information may include soil nitrate concentrations, weather conditions, timing of applications, nitrogen mineralization or loss study results, and so forth.

The corrective plan must be submitted as part of the 'Annual Report' required by the Annual Report part of this chapter.

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Chapter 5. Industrial Spray Irrigation

6. Compliance Responsibility

Exceedance of Soil Limit for Sodium Adsorption Ratio (SAR), Specific Conductance, and/or Chloride

- 6.4 If an intervention limit for SAR, specific conductance, or chloride is exceeded, the Permittee shall submit for MPCA review and approval, a corrective action plan as a supplement to the Annual Report required by the Annual Report part of this chapter.

The plan shall include detailed information pertaining to:

- a. How salts in the process waste water can be reduced;
- b. The impacts of the exceedance on soils, crop health/vigor, and ground-water quality; and,
- c. Proposed changes in operation to mitigate any problems identified.

7. Annual Report

- 7.1 Submit an Industrial Spray Irrigation Annual Report by February 1 of each year following permit issuance, for the previous calendar year. Land application monitoring results for the previous calendar year shall be summarized and submitted to the MPCA.

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Chapter 5. Industrial Spray Irrigation

7. Annual Report

7.2 The Industrial Spray Irrigation Annual Report must include the following information:

- a. A description of the treatment system, including any changes made during the year.
- b. A description of system operation during the past year, including the following:
 - i. Nutrient and hydraulic loading;
 - ii. Irrigation scheduling and intensity;
 - iii. Crop harvesting; and,
 - iv. Problems encountered and any remedial actions.
- c. A description of system maintenance during the past year, including the following:
 - i. Crop information; and,
 - ii. Irrigation equipment.
- d. A summarization of monitoring results obtained during the past year, including the following:
 - i. Ground water monitoring;
 - ii. Soils monitoring;
 - iii. Effluent monitoring; and,
 - iv. Crop monitoring information.
- e. An analysis of the information submitted, and recommendations for changes, including the following:
 - i. Analysis of the year's operation; and,
 - ii. Proposed changes for the coming year's operation.

8. Records

8.1 The Permittee shall maintain a daily record of the operations and observations of the irrigation system at the facility, which shall be available at the facility for review by MPCA staff.

At a minimum, daily operational records shall be maintained pertaining to flows, areas of irrigation, inches of wastewater applied, and nitrogen loading. Also, visual observations shall be performed to determine any ponding, runoff, tile line discharges, and crop conditions.

9. Definitions

- 9.1 "Aquifer" means unconsolidated material or rock capable of producing water to supply a well.
- 9.2 "Groundwater" means water contained below the surface of the earth in the saturated zone including, without limitation, all waters whether under confined, unconfined, or perched conditions, in near-surface unconsolidated sediment or regolith, or in rock formations deeper underground.

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Chapter 5. Industrial Spray Irrigation

9. Definitions

- 9.3 "Industrial Spray Irrigation" means the act of supplying process waste water for agricultural and horticultural purposes to land, crops, or plants by means of pipes, hoses, sprinklers, drippers, ditches, furrows, or other devices that are connected directly to a source of process waste water.
- 9.4 "Monitoring well" means an excavation that is drilled, cord, bored, washed, driven, dug, jetted, or otherwise constructed to extract groundwater for physical, chemical, or biological testing. "Monitoring well": includes a ground water quality sampling well.
- 9.5 "Sodium Adsorption Ratio (SAR)" means a ratio of specific available cations in the soil solution which indicates if the accumulation of sodium in the soil exchange complex will lead to a degradation of the soil structure and thus a sharp reduction in infiltration and permeability rates. Concentrations are expressed in milliequivalents/liter (meq/l).
- 9.6 "Sprayfield" means the area of land that receives the actual application of wastewater. This area does not include buffer zones, setbacks or other land where waste water is not applied.
- 9.7 "Type V Certified Operator or Inspector" means a person certified according to Minn. R. ch. 7048 for land application. A Type V facility is any disposal facility that applies on the land any nonhazardous liquid waste from commercial, industrial, or agricultural operations.

10. General Requirements

Soil Samples

- 10.1 Soil samples shall be taken in the spring before the first irrigation and before the first application of commercial or other supplemental fertilizer for that year.
- 10.2 Soil samples shall be a composite of a mixture of 15 to 20 equally proportioned subsamples taken from a 0- to 8-inch core. At least one composite sample shall be collected for each 40 acres on the permitted land application site.

Application Rates

- 10.3 Nitrogen and sodium land application rate limits apply to the sum of all sources of nitrogen or sodium applied to a permitted application site.
- 10.4 If nitrogen or sodium are applied to a permitted land application site from other sources including commercial fertilizer, manure, silage, sewage or wastewater treatment solids and sludges, then these other nitrogen or sodium sources shall be included in the sum of nitrogen or sodium applied to determine compliance with application rate limits at that site.
- 10.5 The nitrogen application rate shall be calculated as the sum of the total annual mass Kjeldahl nitrogen and nitrate-plus-nitrite nitrogen applied to the site, divided by the acreage of the site.

Chapter 6. Land Application of Industrial By-Products

1. Authorization

- 1.1 This chapter authorizes the Permittee to land apply industrial by-products generated during the production and wastewater treatment process, as described in the 'Facility Description' section of this permit. This activity is limited by the 'Limits and Monitoring' section of this permit as well as the other terms and conditions of this permit.

2. Plan for Sampling, Analysis, and Field Equipment Calibration

- 2.1 Submit an updated Sampling, Analysis and Field Equipment Calibration Plan by 60 days after permit issuance.

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Chapter 6. Land Application of Industrial By-Products

2. Plan for Sampling, Analysis, and Field Equipment Calibration

2.2 The Sampling, Analysis and Field Equipment Calibration plan must include, but is not limited to the following:

- a. A description of how samples will be collected to ensure representative samples of the industrial by-product land applied are obtained, which shall include the identification of sampling locations, and a description of a sampling schedule;
- b. A list of all parameters that will be analyzed, the frequency they will be analyzed, maximum holding times, and preservation methods that will be used;
- c. The laboratory methods used for analysis and reporting limits necessary;
- d. A schedule and detailed procedures which will be followed for calibration of field equipment to determine actual application rates of industrial by-product;
- e. Example of record keeping forms that will be used for sampling, analysis, and equipment calibration;
- f. Position of the person(s) responsible for sampling and calibration of field equipment; and
- g. Description of measures and practices that will be implemented to provide reasonable assurance that the land application, staging and/or storage of industrial by-product will not cause nuisance conditions.

3. Limits and Monitoring Requirements

Parameters

- 3.1 The 'Limits and Monitoring' section of this permit contains the parameters that must be analyzed in each industrial by-product that is land applied as well as the sampling frequency for the industrial by-product land applied.

4. Soil Chemical Suitability Requirements and Limits

- 4.1 Soil samples at LA-328 must be collected and analyzed within the three-year period prior to industrial by-product application for the parameters listed below:

Parameter	Limit	Units
Organic Matter, Total in Soil	Monitor Only	%
pH	Monitor Only	SU
Phosphorus, BRAY-1 Ext in Soil	200	ppm
Phosphorus, Olson Ext in Soil	180	ppm*
Potassium, NH4AC, Exch In Soil	Monitor Only	ppm
Salts, Water Soluble in Soil	4	mmho/cm

* The soil test method used for extractable phosphorus in the soil is either the Bray P-1 test, or the Olson test; the Olson procedure shall be used if the soil pH is 7.4 or higher.

A site shall not be used for land application until sample results are received and evaluated to determine soil suitability.

If any of the soil limits are exceeded, the site shall not be used for land application by the Permittee until sample results show limits are met.

- 4.2 Soil samples shall be a composite sample consisting of a mixture of 15-20 sub-samples taken in the plow layer. A minimum of one composite sample per site is required. On sites that are greater than 40 acres in size, a minimum of one composite sample per 40 acres of area is required.

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Chapter 6. Land Application of Industrial By-Products

5. Soil Physical Suitability Requirements

- 5.1 The soil will be considered suitable if the site is used for growing a crop which is harvested and removed during the cropping year that the industrial by-product is land applied.
- 5.2 If the site does not meet this condition or the application site is set aside land (CRP), pasture land, non-agricultural land, or the industrial by-product contain pathogens, all the soil suitability criteria in a through c, below, must be met:
 - a. The soil texture at the zone of industrial by-product application must be fine sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, sandy clay, silty clay loam, silty clay or clay.
 - b. The depth to bedrock must be at least 3 feet, unless the soil is classified as a highly permeable soil, in which case the minimum depth is increased to 5 feet.
 - c. The depth to the seasonal high water table must be at least 3 feet, unless the soil is classified as a highly permeable soil, in which case the minimum depth is increased to 5 feet.
- 5.3 On sites where tile drainage is installed, the depth to tile lines is considered the depth to the seasonal high water table. Tiling must be adequate to ensure the three-foot separation distance can be maintained. Maps of the tiling system must be provided indicating their depth and placement in the field. Water tables classified as perched or epi-saturated by the Natural Resources Conservation Service are not considered to be the seasonal high water table.
- 5.4 Soil suitability can be determined by obtaining information from soil surveys published by the Natural Resources Conservation Service or by characterization of the site by a state of Minnesota licensed soil scientist or other qualified person.

6. Site Suitability Criteria

- 6.1 The criteria in this section detail the suitability of land application sites for receiving industrial by-products. All criteria within this section must be met for a site to qualify as being suitable for land application of an industrial by-product.
- 6.2 The Permittee is responsible for determining the suitability of the site for industrial by-product application, including a determination that the site meets the soil sample limitations identified above for Land Application Stations in the 'Limits and Monitoring' section of this permit, and the 'Site Suitability Criteria' of this part.
- 6.3 Slope Restrictions. The slope restrictions in Table 3 of the appendix to this permit apply to all sites used for land application of industrial by-products.
- 6.4 Separation Distances. The separation distances in Table 4 of the appendix to this permit shall be maintained on all land application sites.

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Chapter 6. Land Application of Industrial By-Products

7. Site Management, Limitations, and Restrictions

- 7.1 Hydraulic Loading Limits. Hydraulic loading are set to prevent ponding and runoff from land application sites. The limitations specified in this part shall not cause any other application limits of this permit to be exceeded.

Daily application rates for industrial by-products which are surface applied are limited to:

- a. 10,000 gallons/acre/day for fine textured surface soils with United States Department of Agriculture (USDA) textural classifications of clay loam, silty clay loam, sandy clay, silty clay;
 - b. 15,000 gallons/acre/day for medium textured surface soils with USDA textural classifications of loam, silt, silt loam, and sandy clay loam; and,
 - c. 25,000 gallons/acre/day for coarse textured surface soils with USDA textural classifications of sand, loamy sand, and sandy loam.
- 7.2 Winter Application. During the time that soils are frozen or snow covered, so that incorporation or injection is not possible, the following requirements shall be met:
- a. A maximum hydraulic loading rate of 15,000 gallons/acre/winter for liquid industrial by-product shall not be exceeded.
 - b. Applications are restricted to areas with 0 % to 2 % slopes.
 - c. All separation distances identified in Table 4 of the appendix to this permit must be maintained.
 - d. For the purposes of this permit, it is assumed that industrial by-product is unable to be incorporated or injected during the months of December, January, February, and March unless specific field or climatic conditions are observed and documented appropriately in the Daily Hauling Record.
- 7.3 Additional measures may be necessary to prevent runoff of the material during the Spring thaw, such as installation of silt fences and berms and planting of grass buffer strips, to meet the requirement that no runoff of the industrial by-product from the application site is allowed.

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Chapter 6. Land Application of Industrial By-Products

7. Site Management, Limitations, and Restrictions

7.4 Miscellaneous Management Practices/Restrictions. All of the following standards apply to the land application of industrial by-products.

- a. No runoff of the industrial by-product from the application site is allowed. Management tools such as installation of silt fences and berms, and planting of grass buffer strips may be required to meet the no-runoff requirement.
- b. No ponding of liquid industrial by-products is allowed after 6 hours of application.
- c. All of the industrial by-product land applied must be uniformly distributed over the area of the site used during application.
- d. The application area must be clearly identified with flags, stakes, or other easily seen markers at the time of application to identify the site boundaries, separation distances, and unsuitable application areas within the site. Where site boundaries can be identified by field roads, and fences, and so forth, identification is not necessary.
- e. The industrial by-product must be immediately incorporated or injected on sites subject to flooding.
- f. Application of the industrial by-product is not allowed on areas of a site ponded with water or industrial by-product.
- g. Application of the industrial by-product is not allowed on areas that remain fallow for the entire cropping year.
- h. Liquid industrial by-products must be injected or immediately incorporated when applied on soil with a surface horizon permeability rate of less than 0.2 inches/hour.
- i. The industrial by-product shall not be applied by spraying from public roads or across road right of ways without prior written MPCA approval.

7.5 Nuisance conditions. Land application, staging and/or storage of industrial by-product shall be performed to minimize odors, noise, and vector attraction. The Permittee shall provide reasonable assurance that the land application, staging and/or storage of industrial by-product will not cause nuisance conditions. All aspects of land application of the industrial by-product shall be considered in providing reasonable assurance, to include loading, unloading, transportation, storage and land application of the industrial by-product, and shall be specified in the Sampling, Analysis, and Field Calibration Equipment Plan.

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Chapter 6. Land Application of Industrial By-Products

8. Additional Requirements - Industrial By-Products Supplying Nitrogen

Total Available Nitrogen

- 8.1 For the purposes of this permit, the total quantity of nitrogen available for crop uptake during the cropping year is the sum of available organic nitrogen and ammonia nitrogen.
- a. Available organic nitrogen. The available organic nitrogen shall be determined by one of the methods in items i or ii:
- i. The total quantity of organic nitrogen present in the industrial by-product will be considered 50% available during the cropping year it is applied and 25% the following cropping year (carry over nitrogen)..
- ii. The quantity of organic nitrogen available in the IBP during the cropping year it is applied and subsequent years (carry over) will be determined by a mineralization study. The mineralization study will determine the rate and quantity of organic nitrogen mineralized during the cropping year it is applied and the rate and quantity of nitrogen mineralized during the second cropping year after application. To be used for the purposes of this permit, the mineralization study, including study protocol, must be approved by MPCA prior to initiation of the study.
- b. Ammonia nitrogen. The quantity of ammonia nitrogen used for calculating total available nitrogen is equal to 100% of the ammonia nitrogen contained in the industrial by-product when it is injected or immediately incorporated or 50% of the ammonia nitrogen when it is surface applied without immediate incorporation.

Maximum Allowable Nitrogen Application Rates

- 8.2 Maximum allowable nitrogen application rates shall be based on recommendations from the University of Minnesota Extension Service. These recommendations are based on soil analyses, realistic crop yield goals, and previously grown crops. This information is available from the MPCA upon request. When information on recommended nitrogen application rates is not readily available or agreed upon, MPCA written approval must be obtained for the nitrogen application rate proposed.
- 8.3 Maximum allowable nitrogen application rates for selected crops which do not have University of Minnesota Extension Service recommendations for nitrogen are provided in Table 6 of the appendix to this permit.
- 8.4 Industrial by-products shall not be applied at rates that cause the annual maximum allowable nitrogen application rate to be exceeded. Maximum allowable nitrogen application rates must take into account all available nitrogen supplied by industrial and municipal by-products such as biosolids, compost and septage, and fertilizers applied on the site.

Application Management

- 8.5 When no crop is grown on the application site during the time period between July 1 through August 31, the following requirements apply:
- a. Applications are limited to rates which supply no more than 50 pounds per acre of available nitrogen.
- b. Available nitrogen for the following cropping year shall be the sum of the total amount of nitrogen applied between July 1 and August 31 plus applicable carry over from earlier industrial by-product application.
- 8.6 The maximum application rate of an industrial by-product allowed after the second cutting of a hay crop shall not provide more than 50 percent of the maximum allowable nitrogen based on the recommendations from the University of Minnesota Extension Service or Table 6 in the appendix of this permit.

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Chapter 6. Land Application of Industrial By-Products

9. Additional Requirements - Industrial By-Products Containing Pathogens

- 9.1 Applicability. Industrial by-products containing pathogens have additional separation distances and site restrictions which must be met. For purposes of this permit, an industrial by-product will be assumed to contain pathogens when it contains waste streams known or likely to contain pathogens, including wastes containing blood, animal feces and raw meats. All requirements of this section must be met for industrial by-products containing pathogens.

Site Restrictions for Industrial By-Products Containing Pathogens

- 9.2 The restrictions on crop harvest and access restriction described below must be met on all land application sites when industrial by-products containing pathogen are land applied. If necessary, the area must be posted to ensure these restrictions are being met. Minimum duration between time of application of an industrial by-product containing pathogens and harvest, grazing, and public access to the site are as follows:

- a. For food crops whose harvested part may touch the soil/industrial by-product mixture, such as melons, squash, and tomatoes, the waiting period is 14 months.
- b. For food crops whose harvested parts grow in the soil, such as potatoes and carrots, the waiting period is 38 months. This waiting period can be reduced to a 20 month duration between application and harvest when the industrial by-product is surface applied and stays on the soil surface four months or longer prior to incorporation into the soil.
- c. For feed, other food crops, such as field corn or sweet corn, hay, or fiber crop, the waiting period is 30 days.
- d. For the grazing of animals, the waiting period is 30 days.
- e. For public access to land with a high potential for exposure, including public contact sites, reclamation sites located in populated areas, turf farms, or plant nurseries, the waiting period is one year.
- f. For public access to land with a low potential for exposure, including lands with infrequent public use such as agricultural land, forests, or reclamation sites located in an unpopulated area, the waiting period is 30 days.

10. Notification Procedures

Notification to MPCA

- 10.1 Prior to the use of a site for land application of an industrial by-product for the first time, the Permittee shall submit a completed 'Industrial By-Products Land Application Site Application Form', at least 30 days prior to application of industrial by-product at the respective site. The soil test results submitted with this form shall be collected no greater than six (6) months prior to submittal of the form. This notification must be repeated if any of the properties or conditions of the site changes, including a change in site name, site ownership, acreage used, soil types, slope and/or drainage capacity (tile lines). A copy of the form is included in the appendices section of this permit and is available electronically at <http://www.pca.state.mn.us/water/landapp.html>.
- 10.2 Prior to the use of a structure for the storage of an industrial by-product, the appropriate and respective certifications required by the Industrial By-Product Storage section of this permit shall be provided to the MPCA.

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Chapter 6. Land Application of Industrial By-Products

10. Notification Procedures

Local Notification

- 10.3 Before land application activities are initiated within a county, city or township for the first time, written notification shall be provided to local officials at least 30 days before initiating land application activities in the respective jurisdiction. The first time a Permittee applies an industrial by-product within a county, township, or city, the Permittee must satisfy the following notification procedures:
- a. Notify the county's Planning and Zoning or Solid Waste Officer (whichever is appropriate for the county) in writing 30 days before the industrial by-product is land applied within the county; and,
 - b. Notify the township clerk in writing 30 days before the industrial by-product is land applied within the township; or,
 - c. Notify the mayor or other appropriate official of the city in writing 30 days before the industrial by-product is land applied within the city limits.
- 10.4 Notifications must be dated and contain a description of how the industrial by-product will be managed during land application, to include the following elements:
- a. Description of the industrial by-product to be land applied, including a description of how the industrial by-product is produced, what nutrients/pollutants are present in the industrial by-product, and the limiting nutrient/pollutant in the industrial by-product being applied.
 - b. Description of how any staging and/or short-term storage of the industrial by-product will be conducted prior to land application.
 - c. Description of the applicable slope and setback requirements that will be followed during land application.
 - d. Response section must be provided to notify the local officials there is an opportunity to request additional information regarding copies of records, testing information, individual site information, listing of all sites, etc; and/or a section to provide information to the generator of the waste, applicator(s) and land owner(s) of any local requirements.
- 10.5 If any significant changes in the management of the industrial by-product described in the notification occur, including changes affecting the staging and/or storage of the industrial by-product, the notification process must be repeated.

End User Notification

- 10.6 For each site used for land application of the industrial by-product, the end user must receive, at a minimum, the information necessary to meet the requirements of this permit. This includes information such as actual nutrient application rates, any restrictions on the by-product use, crop restrictions, and so forth.
- 10.7 The end user must be provided with this information in writing as soon as possible and in no case more than 6 weeks after application has been completed. Records demonstrating compliance with end user notification shall be maintained in accordance with the Records section of this permit.
- 10.8 The Permittee shall inform end users that they should take appropriate credits for all plant nutrients supplied by industrial and municipal by-products, manures, and fertilizers so that maximum allowable application rates are not exceeded.

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Chapter 6. Land Application of Industrial By-Products

11. Operator Certification

- 11.1 All land application activities must be done by or under the supervision of a Type IV certified operator. All information submitted to the MPCA related to land application must be completed and signed by a Type IV certified operator.
- 11.2 The number of certified operators required for land application activities is subject to the requirements of Minn. R. 7048.0500.

12. Records

- 12.1 Record Retention. The following records shall be maintained at the facility for a minimum of three (3) years, and shall be available at the facility for review at any time by MPCA staff:
 - a. Copy of the submitted 'Site Notification Form' for each land application site, including the site map identifying the exact site location of the site, soil types on the site, and areas that are required to be excluded from use.
 - b. Documentation of site suitability of each site, including a copy of any lab results and other analytical information related to the industrial by-product or site used for application.
 - c. Documentation of loading calculations for each site, including the maximum allowable industrial by-product application rate for each site being used during the current cropping year.
 - d. Documentation of acres used for application.
 - e. Daily hauling records which indicate quantities of industrial by-product transferred to storage or land applied with the storage or site location identified for each land application site or storage area/structure.
 - f. Sampling and calibration records as required by the Sampling, Analysis and Field Equipment Calibration Plan as well as a copy of the submitted Sampling, Analysis, and Field Equipment Calibration Plan.
 - g. Copy of the submitted Industrial By-Products Annual Report Form and any other reported information necessary to prepare the Annual Report.
 - h. Copy of notification letter(s) and other information submitted to each city, county and township.
 - i. Copy of written information provided to each end user of the industrial by-product.
- 12.2 Record Retention continued:
 - j. Any approved plans or special approvals required by this permit.
 - k. Copy of any 'Transfer to Manure Storage Form' submitted for storage of industrial by-product in a manure storage structure.
 - l. Any applicable records requirements pertaining to the storage of industrial by-product as specified by Industrial By-Products Storage section of this permit.

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Chapter 6. Land Application of Industrial By-Products

12. Records

- 12.3 The following information shall be maintained as the 'Daily Hauling Record,' organized by site or storage area/structure for each site or storage unit used for the land application or storage of industrial by-product covered by this permit, including manure storage structures and structures used for the storage of sweet corn silage:
- a. Name of site;
 - b. Date delivered to site/storage area/structure;
 - c. Date applied to site/removed from storage area/structure;
 - d. Volume applied/delivered to site/storage area/structure;
 - e. Application rate;
 - f. Visual observations of site, including but not limited to an indication of whether soils are frozen or snow covered, such that incorporation or injection of industrial by-product is not possible; and
 - g. Running total of industrial by-product applied to site/added to storage unit during the cropping year.
- 12.4 The Permittee shall maintain records for each sample and measurement. The records shall include the following information:
- a. the location and date of the sample or measurement;
 - b. the date of analysis;
 - c. the name of the person who performed the sample collection, measurement, analysis, or calculation;
 - d. the analytical techniques, procedures and methods used; and,
 - e. the results of the analysis.
- 12.5 Records for soil sampling and samples related to the industrial by-products shall be maintained in accordance with the Permittee's Sampling, Analysis and Field Equipment Calibration Plan, as required in the Sampling and Analysis part of this chapter.
- 12.6 The Permittee shall keep the records required by this permit for at least three (3) years, including any calculations, original recordings from automatic monitoring instruments, and laboratory sheets. The Permittee shall extend these record retention periods upon request of the MPCA and/or during the course of an unresolved enforcement action.

13. Annual Report

- 13.1 Submit an Industrial By-Products Management Annual Report by December 31 of each year following permit issuance.

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Chapter 6. Land Application of Industrial By-Products

13. Annual Report

13.2 The Industrial By-Product Land Application Annual Report must include the following information:

- a. Total quantity of each industrial by-product land applied during the cropping year (if none land applied, this can be indicated on the form).
- b. Results of all analyses conducted and the average of these analyses.
- c. Site specific information:
 - i. Crops grown/vegetation receiving nutrient benefit;
 - ii. Realistic yield goal;
 - iii. Months site used;
 - iv. Soil analysis results;
 - v. Application rate of industrial by-product;
 - vi. Application rates for sodium, phosphorus, and nitrogen; and,
 - vii. Description of any management problems associated with land application that occurred during the cropping year and how these problems have been or will be resolved.
- d. Total quantity of industrial by-product transferred to/from a storage area/structure under the terms of the Industrial By-Product Storage section of this permit, if applicable.

13.3 The Permittee shall report monitoring results for the completed reporting period in the units specified by this permit on the Industrial By-Product Land Application Annual Report form, as provided in the appendices section of this permit or electronically at <http://www.pca.state.mn.us/water/landapp.html>.

14. Industrial By-Product Storage

- 14.1 Applicability. Storage or staging of industrial by-product prior to land application is allowed only under the terms and conditions of this permit for the industrial by-product(s) covered by this permit. This section is divided into several subparts, which specifies the applicable standards to the storage area and/or structure based on the length and method of storage.
- 14.2 Dewatered industrial by-products being spread concurrent with the unloading of bulk material on the land application site and not stockpiled overnight are not considered storage and are not subject to the additional requirements for storage under this part.
- 14.3 For the purposes of this permit, management of industrial by-product in a lagoon or pond system that is an inherent part of a wastewater treatment system that has already been expressly approved by the Agency in writing does not constitute storage and is not covered under this permit. Inherent to a wastewater treatment system means that the lagoon or pond system is physically connected to the treatment facility, and is closed loop in nature.
- 14.4 Storage of a dewatered industrial by-product that has already been approved under a previous permit action or other written approval must meet the requirements of the applicable parts of this chapter.

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Chapter 6. Land Application of Industrial By-Products

14. Industrial By-Product Storage

A. Requirements Applicable for Storage of Industrial By-Product

14.5 Prior to use of an area or structure for storage of an industrial by-product within a county, township, or city, the Permittee must notify the appropriate local authorities as described below. Notification to local officials as required by this section shall include as least the following information, and a response section:

- a. a description of the necessity for storage at the land application site;
- b. the location of the storage area delineated on maps submitted;
- c. the dimensions of the storage area;
- d. the quantity of industrial by-product to be stored;
- e. expected duration of storage before land application; and,
- f. a description of precautions or practices to minimize or prevent drainage, runoff or nuisance conditions at the storage area.

14.6 Separation Distances. The separation distances in Table 7 of the 'Tables for Industrial By-Product Chapter' appendix of this permit shall be maintained for all areas and structures used for the storage of industrial by-products.

14.7 Management of Storage Area. All of the following requirements apply to areas and structures used for the storage of industrial by-products:

- a. No runoff of the industrial by-product from the storage site is allowed.
- b. If the storage area contains any particulate matter that may be subject to wind dispersion, the owner or operator must cover or otherwise manage the waste to control wind dispersion.
- c. Nuisance conditions resulting from the storage of industrial by-product must be controlled and managed by the Permittee.

14.8 Records Requirements. In addition to the records retention requirements of this permit, owners and operators of structures used for the storage of industrial by-products shall retain, for the life of the storage structure, the following additional records:

- a. maintenance and repair documentation;
- b. third-party certifications of storage structure(s) used for the storage of industrial by-product; and
- c. as-built drawings of any storage structure(s) used for the storage of industrial by-product.

Additional requirements pertaining to record retention is required in accordance with Minn. R. chapter 7151 for storage of an industrial by-product in a tank or tank system.

B. Requirements for Short-Term Storage of Dewatered Industrial By-Product

14.9 Short-term storage requirements under this section are applicable to industrial by-products that meet the definition of "Dewatered Industrial By-product", as defined by this permit.

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Chapter 6. Land Application of Industrial By-Products

14. Industrial By-Product Storage

14.10 In addition to the requirements under subpart A of this section ("Minimum Requirements for Storage of Industrial By-Products"), the following standards apply to the short-term storage of industrial by-products:

- a. Storage under this section shall not exceed thirty (30) days.
- b. Short-term storage shall only occur on the land application site where the industrial by-product will be applied. The quantity of industrial by-product to be stored at an application site shall not exceed the quantity of material that can be applied to that site.
- c. Short-term storage shall not take place on land with a slope greater than two percent (2%) unless measures are taken to control water runoff.

C. Requirements for Long-Term Storage of Dewatered Industrial By-Product

14.11 Long-term storage requirements under this section are applicable to industrial by-products that meet the definition of "Dewatered Industrial By-product", as defined by this permit.

14.12 In addition to the requirements under subpart A of this section ("Minimum Requirements for Storage of Industrial By-Products"), the following standards apply to the long-term storage of industrial by-products:

- a. Long term storage shall not exceed a period of 7 months.
- b. Long-term storage of an industrial by-product is allowed only when land application will occur on the site where it is stored, or on land that is owned, leased, or rented by the same person, and all sites are within a one-half mile radius of the storage site.
- c. Long-term storage shall not be allowed on land with greater than a two percent (2%) slope unless measures are taken to control water runoff.
- d. Long-term storage areas shall be located in areas where the texture of all the horizons in the soil profile to a depth of five feet is sandy loam or finer, unless an impervious pad with a drainage collection system is constructed.
- e. Long-term storage shall not take place on the same area for two or more consecutive years unless an impervious pad with a drainage collection system is constructed.
- f. Prior to the use of an area for long-term storage (whether or not a pad is constructed), the Permittee shall submit boring logs from at least two soil borings taken to a depth of ten feet at the perimeter of the proposed storage area.

Boring logs must include the following information:

- i. Texture and thickness of each soil horizon encountered;
- ii. Color and presence or absence of mottling for each soil horizon encountered (by the Munsell Soil Color Charts);
- iii. Depth to seasonal high water table, if encountered; and,
- iv. Depth to bedrock, if encountered.

14.13 Locational Prohibitions. All of the locational standards in Table 7 apply to all areas and structures used for the storage of industrial by-products.

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Chapter 6. Land Application of Industrial By-Products

14. Industrial By-Product Storage

- 14.14 Certification Required. Prior to use of a constructed pad or other structure for the long-term storage of an industrial by-product under this section, owners and operators must obtain and submit written certification from a Professional Engineer registered in the state of Minnesota stating that the storage area and/or structure (storage facility), based on their assessment of the requirements of the Long Term Storage of Dewatered Industrial By-Products section of this permit, is suitable for the long-term storage of the industrial by-product.
- 14.15 Certification Required. Prior to the use of an area for the long-term storage of an industrial by-product, the Permittee shall submit written certification by a Professional Soil Scientist registered by the state of Minnesota or a Professional Engineer registered in the state of Minnesota, that the site, based on their assessment of the boring logs required under the Long Term Storage of Dewatered Industrial By-Products of this permit, is suitable for the long-term storage of the industrial by-product.

D. Additional Requirements for the Permanent Storage of Dewatered Industrial By-Product

- 14.16 Permanent Storage Requirements are applicable to Industrial By-Products that are stored for a period of more than seven months and are not stored in a tank or tank system.

If manure becomes co-mingled with industrial by-products, all the waste in the structure is considered an industrial by-product.

- 14.17 In addition to part A (Minimum Standards for Storage of Industrial By-Products), the following standards apply to the permanent storage of industrial by-products:
- a. Any basin, pit or lagoon used to store liquid industrial by-products shall not seep at a rate greater than 500 gallons per acre per day.
 - b. Any area used to store dewatered industrial by-products must be paved with asphalt, concrete, or other material meeting the seepage requirement above, and must be sufficient to bear the weight of unloading and loading trucks and equipment without cracking. The pad must be sloped and curbed to collect all runoff water. Runoff water must be collected and used in a manner approved by the MPCA.
 - c. The industrial by-product shall not be stored at the permanent storage location for more than three years without being processed or utilized.
 - d. Prior to operation of a storage facility, the Permittee shall evaluate the potential for migration of contaminants into adjacent subsurface soil, groundwater, or surface water from the stored industrial by-product. This evaluation must take into consideration the characteristics of the industrial by-product, the quantity of industrial by-product to be stored, and the length of time the industrial by-product will be stored.

- 14.18 Certification Required. Prior to use of a constructed area or structure for the permanent storage of an industrial by-product under this section, the Permittee must obtain and submit written certification from an engineer licensed in Minnesota stating that the storage area and/or structure (storage facility), based on their assessment of the requirements of this permit are suitable for the permanent storage of the industrial by-product.

E. Requirements for the Storage of Industrial By-Product in a Tank or Tank System

- 14.19 Certification Required. Prior to use of a tank for the storage of an industrial by-product under this section, owners and operators must obtain written certification from an engineer licensed in Minnesota stating that the tank, based on their assessment of the applicable provisions of Minn. R. chapter 7151 is compliant with the Above Ground Storage Tank Rules.

F. Additional Requirements for the Transfer of Industrial By-Products to Manure Storage Structures

- 14.20 Applicability. Structures designed primarily for the storage of manure wherein industrial by-product and manure are co-mingled are regulated by the requirements of Part F of this section.

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Chapter 6. Land Application of Industrial By-Products

14. Industrial By-Product Storage

14.21 Maximum Amount Transferred to Each Structure. A maximum of 50,000 gallons of industrial by-product, or up to 10 % of the available volume of the structure, whichever is greater, is allowed to be transferred to each approved manure storage structure. A second transfer to the manure storage structure during a cropping year is also subject to a maximum of 50,000 gallons, or up to 10% of the available volume of the structure, whichever is greater. Two transfers of product are allowed as long as the first quantity is removed prior to receiving the second transfer. The available capacity of the structure at the time of transfer and the amount transferred shall be maintained in the Daily Hauling Record, as required by the Records section of this permit.

14.22 Storage Structure Minimum Standards. The following restrictions apply to the storage of industrial by-product in a manure storage structure:

- a. The structure shall meet the design and operational standards of Minn. R. 7020.2100 pertaining to liquid manure storage areas.
- b. Biological treatment lagoons shall not be used for the storage of industrial by-product.
- c. The manure storage structure shall be operated to maintain a minimum of three-foot freeboard at all times.
- c. Industrial by-products must be compatible with the structure and manure to prevent damage to the structure and changes in biological activity. Examples of problems associated with incompatible wastes are damage to concrete and soil liners, physical or chemical changes in the mixture which make it difficult to agitate or pump, cause odors, or cause other nuisance or structural problems.

14.23 Approval Required. Use of manure storage structures for the storage of industrial by-products requires written MPCA approval prior to use of these structures.

14.24 To request approval of the manure storage structure, the Permittee shall:

- a. Complete an Industrial By-Product Transfer to Manure Storage Application Form and submit it to the appropriate county official (feedlot officer in delegated counties or the county solid waste official in nondelegated counties) in the county in which the manure storage structure is located. A copy of the 'Industrial By-Product Transfer to Manure Storage' form is included in the appendices section of this permit and is available electronically at <http://www.pca.state.mn.us/water/landapp.html>.
- b. Submit a copy of the county completed and signed form to the township or city where the manure storage structure is located.
- c. Submit a copy of the county completed and signed form to the MPCA for review and approval.

14.25 Feedlot Facility Minimum Standards

In consideration for approval of a manure storage structure for industrial by-product use, the following standards apply to the facility storing the industrial by-product:

- a. The feedlot receiving the industrial by-product must have a valid permit or certificate of compliance which identifies the manure storage structure.
- b. The feedlot receiving the industrial by-product must be in compliance with agency feedlot and manure management requirements and have no unresolved compliance issues.

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Chapter 6. Land Application of Industrial By-Products

14. Industrial By-Product Storage

14.26 Land Application of Industrial By-product/Manure Mixtures. The following requirements apply to the land application of mixtures of industrial by-products and manure:

- a. Sampling and analysis of the industrial by-product/manure mixture must occur prior to land application to determine allowable application rates.
- b. Land application of the mixture shall be in accordance with Minn. R. 7020.2225, pertaining to the land application of manure.
- c. The Permittee shall provide the following information to the owner and operator of the manure storage structure at the time of transfer:
 - i. a copy of the analysis of the industrial by-product as required in the 'Limits and Monitoring' section and Table 1 of the appendix to this permit.
 - ii. a copy of the analysis of the industrial by-product/manure mixture.
 - iii. an account of the volume transferred to the manure storage facility.

14.27 Land Application of Industrial By-product/Manure Mixtures (continued)

- d. The Permittee shall obtain a copy of the Manure Management Plan from the owner or operator of the manure storage structure and ensure that the addition of the industrial by-product is appropriately addressed in the Plan. A Manure Management Plan is required by Minn. R. chapter 7020 for operations with more than 300 animal units; for operations with less than 300 animal units, a MMP is not required, but the manure must be land applied in accordance with the requirements of Minn. R. chapter 7020.
- e. The Permittee shall not relinquish control of the industrial by-product until the Manure Management Plan has been appropriately updated or if there is reason to believe that the industrial by-product will not be managed in accordance with this permit or Minn. R. 7020.2225.
- f. The total quantity of by-product transferred and a copy of analysis results shall be submitted to the agency in accordance with the 'Annual Report' part of this chapter.
- g. Daily Hauling Records pertaining to the transfer of the industrial by-product to/from a manure storage structure, as required by the Records section of this permit.

Chapter 7. Stormwater Management

1. General Requirements

Certificate of No Exposure

- 1.1 The company no longer stores any product outdoors. All product related to production is stored indoors. The company has completed and submitted a 'No Exposure' application and has certified that there is no exposure of stormwater to materials on site. As a result, stormwater requirements will be removed from this permit. The company will be required to re-apply for stormwater coverage if conditions regarding 'no exposure' change.

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Chapter 8. Phosphorus Management Plan

1. General Requirements

- 1.1 Phosphorus is a common constituent in many wastewater discharges and a pollutant that has the potential to negatively impact the quality of Minnesota's lakes, wetlands, rivers and streams. Therefore, phosphorus discharges are being carefully evaluated throughout the state.

The Permittee is required to complete and submit a Phosphorus Management Plan (PMP) to the MPCA as detailed in this section. If the Permittee has already submitted a PMP, the Permittee must update that PMP and submit the updated PMP to the MPCA as detailed in this section.

While the PMP does not require specific reductions at this time, the MPCA strongly encourages the Permittee to identify and eliminate/reduce sources of phosphorus to, and improve phosphorus management within, the permitted wastewater treatment facility. However, be aware that new or expanding discharges may be required to actively manage and reduce phosphorus, including complying with new or tighter phosphorus effluent limits.

For additional information about completing the PMP below, please contact the MPCA at 651-282-6143 or 800-657-3864.

- 1.2 The Permittee shall submit a Phosphorus Management Plan (PMP) or an updated PMP to the MPCA 180 days prior to permit expiration.

At a minimum, the PMP shall include the following:

- a. A summary of influent and effluent concentrations, mass loadings, and percent removal calculations using the most recent five years of monitoring data, if available.
- b. Identification of existing and potential sources of elevated phosphorus concentrations and/or loading to the facility. As appropriate for the facility, consider residential, institutional, municipal, and commercial sources.
- c. An evaluation of past and present WWTF operations to determine those operating procedures that maximize phosphorus removal.
- d. A summary of any phosphorus reduction activities implemented during the last five years.
- e. Phosphorus management and reduction goals for the next five years using the information collected in A through D above.
- f. A plan to implement phosphorus management and reduction measures during the next five years.

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Chapter 9. Total Residual Oxidants - Non-Domestic

1. General Requirements

- 1.1 "Daily Maximum" for Total Residual Chlorine (TRC) concentration limits means:
 - a. The value of a single sample in a 24-hour period if the concentration of TRC in that sample is 0.04 mg/L or less.
 - b. If the concentration of TRC in the first sample is greater than 0.04 mg/L reporting the average of two to twelve samples analyzed in a 24-hour period is allowed. The second sample must be taken two hours after the first sample and subsequent samples are to be taken at one-hour intervals thereafter, not to exceed a total of twelve samples in a 24-hour period. Values below the Reportable Limit for TRC are assumed to be zero for averaging purposes only.
 - c. The average value of multiple daily TRC effluent sample analyses must meet the 0.04 mg/L limit to be in compliance.
- 1.2 Total Residual Chlorine must be analyzed immediately. This means within 15 minutes or less of sample collection. (40 CFR Part 136 and Standard Methods for the Examination of Water and Wastewater, Latest Edition)
- 1.3 A Method Detection Limit (MDL) must be established for this parameter.
- 1.4 The Reportable Limit must be established for this parameter. This should be based on the Method Detection Limit and laboratory, analyst, and equipment used in the analysis. The Reportable Limit cannot be greater than 0.04 mg/L.
- 1.5 The Method Detection Limit and Reportable Limit should be reassessed when the method, equipment, laboratory, or analyst changes.
- 1.6 Monitoring results below the Reportable Limit should be reported as "<" the Reportable Limit. For example, if the Reportable Limit is 0.2 mg/L and a parameter is not detected at a value of 0.2 mg/L or greater, the concentration shall be reported as "<0.2 mg/L." The symbol "<" means "less than."
- 1.7 The equipment should be checked against a known standard at least quarterly.

Chapter 10. Total Facility Requirements

1. General Requirements

General Requirements

- 1.1 Incorporation by Reference. The following applicable federal and state laws are incorporated by reference in this permit, are applicable to the Permittee, and are enforceable parts of this permit: 40 CFR pts. 122.41, 122.42, 136, 403 and 503; Minn. R. pts. 7001, 7041, 7045, 7050, 7052, 7053, 7060, and 7080; and Minn. Stat. Sec. 115 and 116.
- 1.2 Permittee Responsibility. The Permittee shall perform the actions or conduct the activity authorized by the permit in compliance with the conditions of the permit and, if required, in accordance with the plans and specifications approved by the Agency. (Minn. R. 7001.0150, subp. 3, item E)
- 1.3 Toxic Discharges Prohibited. Whether or not this permit includes effluent limitations for toxic pollutants, the Permittee shall not discharge a toxic pollutant except according to Code of Federal Regulations, Title 40, sections 400 to 460 and Minnesota Rules 7050, 7052, 7053 and any other applicable MPCA rules. (Minn. R. 7001.1090, subp.1, item A)
- 1.4 Nuisance Conditions Prohibited. The Permittee's discharge shall not cause any nuisance conditions including, but not limited to: floating solids, scum and visible oil film, acutely toxic conditions to aquatic life, or other adverse impact on the receiving water. (Minn. R. 7050.0210 subp. 2)

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Chapter 10. Total Facility Requirements

1. General Requirements

- 1.5 Property Rights. This permit does not convey a property right or an exclusive privilege. (Minn. R. 7001.0150, subp. 3, item C)
- 1.6 Liability Exemption. In issuing this permit, the state and the MPCA assume no responsibility for damage to persons, property, or the environment caused by the activities of the Permittee in the conduct of its actions, including those activities authorized, directed, or undertaken under this permit. To the extent the state and the MPCA may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act. (Minn. R. 7001.0150, subp. 3, item O)
- 1.7 The MPCA's issuance of this permit does not obligate the MPCA to enforce local laws, rules, or plans beyond what is authorized by Minnesota Statutes. (Minn. R. 7001.0150, subp.3, item D)
- 1.8 Liabilities. The MPCA's issuance of this permit does not release the Permittee from any liability, penalty or duty imposed by Minnesota or federal statutes or rules or local ordinances, except the obligation to obtain the permit. (Minn. R. 7001.0150, subp.3, item A)
- 1.9 The issuance of this permit does not prevent the future adoption by the MPCA of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or orders against the Permittee. (Minn. R. 7001.0150, subp.3, item B)
- 1.10 Severability. The provisions of this permit are severable and, if any provisions of this permit or the application of any provision of this permit to any circumstance are held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.
- 1.11 Compliance with Other Rules and Statutes. The Permittee shall comply with all applicable air quality, solid waste, and hazardous waste statutes and rules in the operation and maintenance of the facility.
- 1.12 Inspection and Entry. When authorized by Minn. Stat. Sec. 115.04; 115B.17, subd. 4; and 116.091, and upon presentation of proper credentials, the agency, or an authorized employee or agent of the agency, shall be allowed by the Permittee to enter at reasonable times upon the property of the Permittee to examine and copy books, papers, records, or memoranda pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit; and to conduct surveys and investigations, including sampling or monitoring, pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit. (Minn. R. 7001.0150, subp.3, item I)
- 1.13 Control Users. The Permittee shall regulate the users of its wastewater treatment facility so as to prevent the introduction of pollutants or materials that may result in the inhibition or disruption of the conveyance system, treatment facility or processes, or disposal system that would contribute to the violation of the conditions of this permit or any federal, state or local law or regulation.

Sampling

- 1.14 Representative Sampling. Samples and measurements required by this permit shall be conducted as specified in this permit and shall be representative of the discharge or monitored activity. (40 CFR 122.41 (j)(1))
- 1.15 Additional Sampling. If the Permittee monitors more frequently than required, the results and the frequency of monitoring shall be reported on the Discharge Monitoring Report (DMR) or another MPCA-approved form for that reporting period. (Minn. R. 7001.1090, subp. 1, item E)
- 1.16 Certified Laboratory. A laboratory certified by the Minnesota Department of Health shall conduct analyses required by this permit. Analyses of dissolved oxygen, pH, temperature and total residual oxidants (chlorine, bromine) do not need to be completed by a certified laboratory but shall comply with manufacturers specifications for equipment calibration and use. (Minn. Stat. Sec. 144.97 through 144.98 and Minn. R. 4740.2010 and 4740.2050 through 4740.2120) (Minn. R. 4740.2010 and 4740.2050 through 2120)

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Chapter 10. Total Facility Requirements

1. General Requirements

- 1.17 Sample Preservation and Procedure. Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and Minn. R. 7041.3200.
- 1.18 Equipment Calibration: Flow meters, pumps, flumes, lift stations or other flow monitoring equipment used for purposes of determining compliance with permit shall be checked and/or calibrated for accuracy at least twice annually. (Minn. R. 7001.0150, subp. 2, items B and C)
- 1.19 Maintain Records. The Permittee shall keep the records required by this permit for at least three years, including any calculations, original recordings from automatic monitoring instruments, and laboratory sheets. The Permittee shall extend these record retention periods upon request of the MPCA. The Permittee shall maintain records for each sample and measurement. The records shall include the following information (Minn. R. 7001.0150, subp. 2, item C):
- a. The exact place, date, and time of the sample or measurement;
 - b. The date of analysis;
 - c. The name of the person who performed the sample collection, measurement, analysis, or calculation; and
 - d. The analytical techniques, procedures and methods used; and
 - e. The results of the analysis.
- 1.20 Completing Reports. The Permittee shall submit the results of the required sampling and monitoring activities on the forms provided, specified, or approved by the MPCA. The information shall be recorded in the specified areas on those forms and in the units specified. (Minn. R. 7001.1090, subp. 1, item D; Minn. R. 7001.0150, subp. 2, item B)

Required forms may include:

Supplemental Report Form (Supplemental)

Individual values for each sample and measurement must be recorded on the Supplemental which, if required, will be provided by the MPCA. Supplementals shall be submitted with the appropriate DMRs. You may design and use your own Supplemental; however it must be approved by the MPCA. Note: Required Summary information **MUST** also be recorded on the DMR. Summary information that is submitted **ONLY** on the Supplemental does not comply with the reporting requirements.

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Chapter 10. Total Facility Requirements

1. General Requirements

1.21 Submitting Reports. DMRs and Supplementals shall be submitted to:

MPCA
Attn: Discharge Monitoring Reports
520 Lafayette Road North
St. Paul, Minnesota 55155-4194.

DMRs and Supplementals shall be postmarked by the 21st day of the month following the sampling period or as otherwise specified in this permit. A DMR shall be submitted for each required station even if no discharge occurred during the reporting period. (Minn. R. 7001.0150, subps. 2.B and 3.H)

Other reports required by this permit shall be postmarked by the date specified in the permit to:

MPCA
Attn: WQ Submittals Center
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

1.22 Incomplete or Incorrect Reports. The Permittee shall immediately submit an amended report or DMR to the MPCA upon discovery by the Permittee or notification by the MPCA that it has submitted an incomplete or incorrect report or DMR. The amended report or DMR shall contain the missing or corrected data along with a cover letter explaining the circumstances of the incomplete or incorrect report. (Minn. R. 7001.0150 subp. 3, item G)

1.23 Required Signatures. All DMRs, forms, reports, and other documents submitted to the MPCA shall be signed by the Permittee or the duly authorized representative of the Permittee. Minn. R. 7001.0150, subp. 2, item D. The person or persons that sign the DMRs, forms, reports or other documents must certify that he or she understands and complies with the certification requirements of Minn. R. 7001.0070 and 7001.0540, including the penalties for submitting false information. Technical documents, such as design drawings and specifications and engineering studies required to be submitted as part of a permit application or by permit conditions, must be certified by a registered professional engineer. (Minn. R. 7001.0540)

1.24 Detection Level. The Permittee shall report monitoring results below the reporting limit (RL) of a particular instrument as "<" the value of the RL. For example, if an instrument has a RL of 0.1 mg/L and a parameter is not detected at a value of 0.1 mg/L or greater, the concentration shall be reported as "<0.1 mg/L." "Non-detected," "undetected," "below detection limit," and "zero" are unacceptable reporting results, and are permit reporting violations. (Minn. R. 7001.0150, subp. 2, item B)

Where sample values are less than the level of detection and the permit requires reporting of an average, the Permittee shall calculate the average as follows:

- If one or more values are greater than the level of detection, substitute zero for all nondetectable values to use in the average calculation.
- If all values are below the level of detection, report the averages as "<" the corresponding level of detection.
- Where one or more sample values are less than the level of detection, and the permit requires reporting of a mass, usually expressed as kg/day, the Permittee shall substitute zero for all nondetectable values. (Minn. R. 7001.0150, subp. 2, item B)

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Chapter 10. Total Facility Requirements

1. General Requirements

- 1.25 Records. The Permittee shall, when requested by the Agency, submit within a reasonable time the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the facility covered by the permit or regarding the conduct of the activity covered by the permit. (Minn. R. 7001.0150, subp. 3, item H)
- 1.26 Confidential Information. Except for data determined to be confidential according to Minn. Stat. Sec. 116.075, subd. 2, all reports required by this permit shall be available for public inspection. Effluent data shall not be considered confidential. To request the Agency maintain data as confidential, the Permittee must follow Minn. R. 7000.1300.

Noncompliance and Enforcement

- 1.27 Subject to Enforcement Action and Penalties. Noncompliance with a term or condition of this permit subjects the Permittee to penalties provided by federal and state law set forth in section 309 of the Clean Water Act; United States Code, title 33, section 1319, as amended; and in Minn. Stat. Sec. 115.071 and 116.072, including monetary penalties, imprisonment, or both. (Minn. R. 7001.1090, subp. 1, item B)
- 1.28 Criminal Activity. The Permittee may not knowingly make a false statement, representation, or certification in a record or other document submitted to the Agency. A person who falsifies a report or document submitted to the Agency, or tampers with, or knowingly renders inaccurate a monitoring device or method required to be maintained under this permit is subject to criminal and civil penalties provided by federal and state law. (Minn. R. 7001.0150, subp.3, item G., 7001.1090, subps. 1, items G and H and Minn. Stat. Sec. 609.671)
- 1.29 Noncompliance Defense. It shall not be a defense for the 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. (40 CFR 122.41(c))
- 1.30 Effluent Violations. If sampling by the Permittee indicates a violation of any discharge limitation specified in this permit, the Permittee shall immediately make every effort to verify the violation by collecting additional samples, if appropriate, investigate the cause of the violation, and take action to prevent future violations. Violations that are determined to pose a threat to human health or a drinking water supply, or represent a significant risk to the environment shall be immediately reported to the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 (toll free) or (651)649-5451 (metro area). In addition, you may also contact the MPCA during business hours. Otherwise the violations and the results of any additional sampling shall be recorded on the next appropriate DMR or report.
- 1.31 Unauthorized Releases of Wastewater Prohibited. Except for conditions specifically described in Minn. R. 7001.1090, subp. 1, items J and K, all unauthorized bypasses, overflows, discharges, spills, or other releases of wastewater or materials to the environment, whether intentional or not, are prohibited. However, the MPCA will consider the Permittee's compliance with permit requirements, frequency of release, quantity, type, location, and other relevant factors when determining appropriate action. (40 CFR 122.41 and Minn. Stat. Sec 115.061)

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Chapter 10. Total Facility Requirements

1. General Requirements

1.32 Discovery of a release. Upon discovery of a release, the Permittee shall:

- a. Take all reasonable steps to immediately end the release.
- b. Notify the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 (toll free) or (651)649-5451 (metro area) immediately upon discovery of the release. In addition, you may also contact the MPCA during business hours at 1(800) 657-3864.
- c. Recover as rapidly and as thoroughly as possible all substances and materials released or immediately take other action as may be reasonably possible to minimize or abate pollution to waters of the state or potential impacts to human health caused thereby. If the released materials or substances cannot be immediately or completely recovered, the Permittee shall contact the MPCA. If directed by the MPCA, the Permittee shall consult with other local, state or federal agencies (such as the Minnesota Department of Natural Resources and/or the Wetland Conservation Act authority) for implementation of additional clean-up or remediation activities in wetland or other sensitive areas.
- d. Collect representative samples of the release. The Permittee shall sample the release for parameters of concern immediately following discovery of the release. The Permittee may contact the MPCA during business hours to discuss the sampling parameters and protocol. In addition, Fecal Coliform Bacteria samples shall be collected where it is determined by the Permittee that the release contains or may contain sewage. If the release cannot be immediately stopped, the Permittee shall consult with MPCA regarding additional sampling requirements. Samples shall be collected at least, but not limited to, two times per week for as long as the release continues.
- e. Submit the sampling results as directed by the MPCA. At a minimum, the results shall be submitted to the MPCA with the next DMR.

1.33 Upset Defense. In the event of temporary noncompliance by the Permittee with an applicable effluent limitation resulting from an upset at the Permittee's facility due to factors beyond the control of the Permittee, the Permittee has an affirmative defense to an enforcement action brought by the Agency as a result of the noncompliance if the Permittee demonstrates by a preponderance of competent evidence:

- a. The specific cause of the upset;
- b. That the upset was unintentional;
- c. That the upset resulted from factors beyond the reasonable control of the Permittee and did not result from operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or increases in production which are beyond the design capability of the treatment facilities;
- d. That at the time of the upset the facility was being properly operated;
- e. That the Permittee properly notified the Commissioner of the upset in accordance with Minn. R. 7001.1090, subp. 1, item I; and
- f. That the Permittee implemented the remedial measures required by Minn. R. 7001.0150, subp. 3, item J.

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Chapter 10. Total Facility Requirements

1. General Requirements

Operation and Maintenance

- 1.34 The Permittee shall at all times properly operate and maintain the facilities and systems of treatment and control, and the appurtenances related to them which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall install and maintain appropriate backup or auxiliary facilities if they are necessary to achieve compliance with the conditions of the permit and, for all permits other than hazardous waste facility permits, if these backup or auxiliary facilities are technically and economically feasible Minn. R. 7001.0150. subp. 3, item F.
- 1.35 In the event of a reduction or loss of effective treatment of wastewater at the facility, the Permittee shall control production or curtail its discharges to the extent necessary to maintain compliance with the terms and conditions of this permit. The Permittee shall continue this control or curtailment until the wastewater treatment facility has been restored or until an alternative method of treatment is provided. (Minn. R. 7001.1090, subp. 1, item C)
- 1.36 Solids Management. The Permittee shall properly store, transport, and dispose of biosolids, septage, sediments, residual solids, filter backwash, screenings, oil, grease, and other substances so that pollutants do not enter surface waters or ground waters of the state. Solids should be disposed of in accordance with local, state and federal requirements. (40 CFR 503 and Minn. R. 7041 and applicable federal and state solid waste rules)
- 1.37 Scheduled Maintenance. The Permittee shall schedule maintenance of the treatment works during non-critical water quality periods to prevent degradation of water quality, except where emergency maintenance is required to prevent a condition that would be detrimental to water quality or human health. (Minn. R. 7001.0150. subp. 3, item F and Minn. R. 7001.0150. subp. 2, item B)
- 1.38 Control Tests. In-plant control tests shall be conducted at a frequency adequate to ensure compliance with the conditions of this permit. (Minn. R. 7001.0150. subp. 3, item F and Minn. R. 7001.0150. subp. 2, item B)

Changes to the Facility or Permit

- 1.39 Permit Modifications. No person required by statute or rule to obtain a permit may construct, install, modify, or operate the facility to be permitted, nor shall a person commence an activity for which a permit is required by statute or rule until the Agency has issued a written permit for the facility or activity. (Minn. R. 7001.0030)

Permittees that propose to make a change to the facility or discharge that requires a permit modification must follow Minn. R. 7001.0190. If the Permittee cannot determine whether a permit modification is needed, the Permittee must contact the MPCA prior to any action. It is recommended that the application for permit modification be submitted to the MPCA at least 180 days prior to the planned change.

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Chapter 10. Total Facility Requirements

1. General Requirements

- 1.40 Construction. No construction shall begin until the Permittee receives written approval of plans and specifications from the MPCA (Minn. Stat. Sec. 115.03(f)).

Plans, specifications and MPCA approval are not necessary when maintenance dictates the need for installation of new equipment, provided the equipment is the same design size and has the same design intent. For instance, a broken pipe, lift station pump, aerator, or blower can be replaced with the same design-sized equipment without MPCA approval.

If the proposed construction is not expressly authorized by this permit, it may require a permit modification. If the construction project requires an Environmental Assessment Worksheet under Minn. R. 4410, no construction shall begin until a negative declaration is issued and all approvals are received or implemented.

- 1.41 Report Changes. The Permittee shall give advance notice as soon as possible to the MPCA of any substantial changes in operational procedures, activities that may alter the nature or frequency of the discharge, and/or material factors that may affect compliance with the conditions of this permit. (Minn. R. 7001.0150, subp. 3, item M)
- 1.42 Chemical Additives. The Permittee shall receive prior written approval from the MPCA before increasing the use of a chemical additive authorized by this permit, or using a chemical additive not authorized by this permit, in quantities or concentrations that have the potential to change the characteristics, nature and/or quality of the discharge.

The Permittee shall request approval for an increased or new use of a chemical additive at least 60 days, or as soon as possible, before the proposed increased or new use.

This written request shall include at least the following information for the proposed additive:

- a. The process for which the additive will be used;
- b. Material Safety Data Sheet (MSDS) which shall include aquatic toxicity, human health, and environmental fate information for the proposed additive;
- c. A complete product use and instruction label;
- d. The commercial and chemical names and Chemical Abstract Survey (CAS) number for all ingredients in the additive (If the MSDS does not include information on chemical composition, including percentages for each ingredient totaling to 100%, the Permittee shall contact the supplier to have this information provided); and
- e. The proposed method of application, application frequency, concentration, and daily average and maximum rates of use.

Upon review of the information submitted regarding the proposed chemical additive, the MPCA may require additional information be submitted for consideration. This permit may be modified to restrict the use or discharge of a chemical additive and include additional influent and effluent monitoring requirements.

Approval for the use of an additive shall not justify the exceedance of any effluent limitation nor shall it be used as a defense against pollutant levels in the discharge causing or contributing to the violation of a water quality standard. (Minn. R. 7001.0170)

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Chapter 10. Total Facility Requirements

1. General Requirements

1.43 The following chemical additives have been approved for use at the following rates:

- * Luster QF-BC - 3.5 oz/gallon
- * CD-470 - 3 oz/gallon
- * Quorum Red II - 2 oz/gallon
- * Release QF-C - 2 oz/gallon
- * Pristine QF - 4 oz/13 gallons
- * Quorum Clear V - 2 oz/4 gallons
- * Solovaxx QF-100HF - 3 oz/gallon
- * Anti Foam 10 - as needed
- * Bromine tablets - 0.5 ppm
- * B-289 - 60 ppm
- * OP-896 - 200 ppm

1.44 The use of Can Care 8720 at a rate of 40 ppm is approved for use only when the company is discharging to the city of Faribault wastewater treatment facility. Can Care 8720 is not approved for use when the company is using its surface water discharge (SD-001).

1.45 MPCA Initiated Permit Modification, Suspension, or Revocation. The MPCA may modify or revoke and reissue this permit pursuant to Minn. R. 7001.0170. The MPCA may revoke without reissuance this permit pursuant to Minn. R. 7001.0180.

1.46 TMDL Impacts. Facilities that discharge to an impaired surface water, or to a watershed or drainage basin that contains impaired waters, may be required, at some future date, to comply with additional permits, or permit requirements, including additional restriction or relaxation of limits and monitoring as authorized by the CWA 303(d)(4)(A)) and 40 CFR 122.44.1.2.i, based on the conclusions of any applicable US EPA approved Total Maximum Daily Load (TMDL) studies, their associated implementation plans or additional sampling or monitoring.

1.47 Permit Transfer. The permit is not transferable to any person without the express written approval of the Agency after compliance with the requirements of Minn. R. 7001.0190. A person to whom the permit has been transferred shall comply with the conditions of the permit. (Minn. R., 7001.0150, subp. 3, item N)

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Chapter 10. Total Facility Requirements

1. General Requirements

- 1.48 Facility Closure. The Permittee is responsible for closure and post-closure care of the facility. The Permittee shall notify the MPCA of a significant reduction or cessation of the activities described in this permit at least 180 days before the reduction or cessation. The MPCA may require the Permittee to provide to the MPCA a facility Closure Plan for approval.

Facility closure that could result in a potential long-term water quality concern, such as the ongoing discharge of wastewater to surface or ground water, may require a permit modification or reissuance.

The MPCA may require the Permittee to establish and maintain financial assurance to ensure performance of certain obligations under this permit, including closure, post-closure care and remedial action at the facility. If financial assurance is required, the amount and type of financial assurance, and proposed modifications to previously MPCA-approved financial assurance, shall be approved by the MPCA. (Minn. Stat. Sec. 116.07, subd. 4)

- 1.49 Permit Reissuance. If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for reissuance at least 180 days before permit expiration. If the Permittee does not intend to continue the activities authorized by this permit after the expiration date of this permit, the Permittee shall notify the MPCA in writing at least 180 days before permit expiration.

If the Permittee has submitted a timely application for permit reissuance, the Permittee may continue to conduct the activities authorized by this permit, in compliance with the requirements of this permit, until the MPCA takes final action on the application, unless the MPCA determines any of the following (Minn. R. 7001.0040 and 7001.0160):

- a. The Permittee is not in substantial compliance with the requirements of this permit, or with a stipulation agreement or compliance schedule designed to bring the Permittee into compliance with this permit;
- b. The MPCA, as a result of an action or failure to act by the Permittee, has been unable to take final action on the application on or before the expiration date of the permit;
- c. The Permittee has submitted an application with major deficiencies or has failed to properly supplement the application in a timely manner after being informed of deficiencies.