Spray Irrigation/Rapid Infiltration Basin Discharge not Authorized within Permit Form

State Disposal System (SDS) Permit Program

Instructions: This guidance needs to be followed prior to a discharge occurring during a “Problem Discharge Period” or to a frozen spray irrigation field, a frozen Rapid Infiltration Basin (RIB) or if dormant cover crops exist. A “Problem Discharge Period” is defined as the months in which spray irrigation is not allowed within your National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Permit. If it becomes necessary to spray irrigate during a “Problem Discharge Period” (e.g., November or December – March) or to a frozen spray irrigation field or to a spray irrigation field with dormant cover crops or utilize frozen RIBs, adequate justification must be provided.

Because discharges to frozen fields or dormant cover crops maximize the potential for adverse impacts on the environment, they are to be avoided regardless of whether permitted effluent limits are met. In an emergency situation, when a discharge is planned to a frozen field or dormant cover crop, call your Minnesota Pollution Control Agency (MPCA) Regional Office compliance contact.

The exact dates associated with the onset of frozen conditions and dormant crops within spray irrigation fields are unpredictable. If it is anticipated that a discharge may be necessary late in the fall or early in the spring, when the spray irrigation conditions are not adequate, this guidance shall be completed at least two weeks prior to the proposed beginning of the discharge.

Violations of the NPDES/SDS Permit conditions can be subject to MPCA enforcement action. The intent of this guidance is to assist operators to manage the operation of their facilities to minimize the environmental impacts of their discharges.

Facility Information

Facility name: __________________________ Facility Permit No.: __________________________

I. Discharge notification

Prior to a discharge, operators are required to submit this form to: MPCA, Attn: WQ Submittals Center, 520 Lafayette Road North, St. Paul, Minnesota, 55155-4194 and contact their MPCA Regional Office compliance staff (The list of staff contacts can be found on the MPCA Wasterwater webpage at http://www.pca.state.mn.us/index.php/water/water-types-and-programs/wastewater/index.html ) for one or more of the following conditions:

A. If the cover crop is dormant.
B. If any of the discharge occurs during a “Problem Discharge Period”.
C. If a discharge is anticipated to occur to frozen spray irrigation or RIB sites (regardless of whether the discharge occurs during an “acceptable” or “Problem Discharge Period”).

II. Problem discharge periods

A. Frozen conditions – the following should be followed as a minimum by the facility:
   1. Only areas of the spray site with slopes less than two percent should be used.
   2. Application rates should be as low as necessary (preferably less than 15,000 gallons/acre).
   3. Daily inspections to monitor for potential runoff.

III. Sampling during a discharge

Samples shall be taken once per week from the final control structure or at the sampling frequency identified in your permit; whichever is more restrictive. Samples must be analyzed by a certified laboratory* for all permit parameters.

*Note – pH and specific conductance analysis should be analyzed in the field within fifteen minutes of sample collection.
Facility Information (Continued)

Reason(s) discharge is being requested: ____________________________________________
Operator name: ___________________________ Year(s) constructed: ______________________
Phone number: ___________________________ Design flow (MGD): ________________________

List numbers and types of cells, cell sizes, and operating depths (minimum to maximum):

Aerated cells: ___________________________
Primary(s): ____________________________
Secondary(s): __________________________
Tank(s): _______________________________

Are the ponds operated in: ☐ Series ☐ Parallel When: _____________________________

Hydraulic Capacity Evaluation (Dates use mm/dd/yyyy)

Date of last flow meter calibration: _______________ Dates of previous discharge(s): _______________ _______________
Volume of previous discharge (million gallons/MG): ___________________________

Influent flow rates (last six months)

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<th>Month</th>
<th>Flow (MGD)</th>
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Total average: ___________________________

Storage cell levels after previous discharge (inches)

Primary(s) pond: ____________________________
Secondary(s) pond: ____________________________
Tank(s): ____________________________

Source Water Information:

Total volume pumped last six months: _______________ MG
Monthly average: _______________ MGD

Collection system bypasses: ☐ Yes ☐ No ☐ N/A

Volumes Dates (mm/dd/yyyy)

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<th>Volumes</th>
<th>Dates (mm/dd/yyyy)</th>
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Precipitation total last six months: ___________________________

Unusual storms (inches/dates): ___________________________

Organic Capacity Evaluation

Influent samples (last four quarterly or monthly samples)

Sample dates (mm/dd/yyyy) Influent flow (MGD) CBOD₅ (mg/L) TSS (mg/L) pH

CBOD₅ = Five-Day Carbonaceous Biochemical Oxygen Demand mg/L = milligrams per Liter
MGD = million gallons per day pH = potential of Hydrogen
TSS = Total Suspended Solids

Any significant industrial users of the wastewater facility? ☐ Yes ☐ No ☐ N/A
If yes, does the city have Industrial User Agreements with them? ☐ Yes ☐ No ☐ N/A
If yes, are the industries in compliance with the agreements? ☐ Yes ☐ No ☐ N/A

Discharge evaluation

Date proposed discharge to begin: ___________________________
Date proposed discharge to end: ___________________________
Discharge volume (MG): ___________________________
Discharge rate (CFS): ___________________________
Application site snow cover (%): ___________________________
Application rate (Gallons/acre): inches/acre: ___________________________
Cover crop growing (%): ___________________________
Frozen soils (%): ___________________________
Land application site(s) proposed to be utilized (Attach a map of each): ___________________________
Nearest downgradient water feature (e.g., intermittent stream, wetland, etc.) to proposed site(s): ___________________________ ft.
Discharge effluent quality (if facility permit requires more analytical than below – please include additional data):

<table>
<thead>
<tr>
<th>Sample dates (mm/dd/yyyy)</th>
<th>Chloride, Total (mg/L)</th>
<th>Fecal Coliform</th>
<th>Nitrite Plus Nitrate, Total (as N)</th>
<th>Nitrogen, Ammonia, Total (as N)</th>
<th>Nitrogen, Kjeldahl, Total</th>
<th>pH (field)</th>
<th>Total Phosphorus (mg/L)</th>
<th>Specific Conductance (field)</th>
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Proposed Nitrogen loading: Site: □ N/A: (Rapid infiltration basins)

Effluent*: 

*Effluent nitrogen loading (pounds/acre) = million gallons/acre x 8.34 x [kjeldahl nitrogen (mg/L) + nitrate nitrogen (mg/L)]

Soil analytical results: Site: □ N/A: (Rapid infiltration basins)

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<tr>
<th>Sample date:</th>
<th>Organic matter:</th>
<th>pH:</th>
<th>Phosphorus:</th>
<th>Potassium:</th>
<th>Soluble salts:</th>
</tr>
</thead>
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Crop information: Site: □ N/A: (Rapid infiltration basins)

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<th>Crop grown:</th>
<th>Crop yield:</th>
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Groundwater monitoring data* Site: □ N/A: (Rapid infiltration basins)

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<tr>
<th>Sample date:</th>
<th>Chloride, Total:</th>
<th>Nitrite Plus Nitrate, Total (as N):</th>
<th>Nitrogen, Ammonia, Total (as N):</th>
<th>Nitrogen, Kjeldahl, Total:</th>
<th>Specific Conductance, Field:</th>
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*Complete for prior two years.

Certification

I certify that I am familiar with the information contained in this report, and that to the best of my knowledge and belief the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Principal Executive Officer/Authorized Agent

Print name: ____________________________

Signature: ____________________________

Date (mm/dd/yyyy): ____________________

Type V Certified Operator (if required)

Print name: ____________________________

Signature: ____________________________

Date (mm/dd/yyyy): ____________________

Type V Information (if required):

Telephone number: ____________________

Certification number: ____________________

Mailing address:

City: ____________________________

State: ____________________________

Zip code: ____________________________

Certification expiration date (mm/dd/yyyy): ____________________