



STATE OF MINNESOTA

Minnesota Pollution Control Agency

Municipal Division

**National Pollutant Discharge Elimination System (NPDES)/
State Disposal System (SDS) Permit MNG640000****Water Treatment Plant Surface Water Discharge General Permit****ISSUANCE DATE:****EXPIRATION DATE:**

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 reduce pollutant levels in point source discharges and protect water quality in accordance with Minnesota and US statutes and rules, including Minn. Stat. chs. 115 and 116, Minn. R. chs. 7001, 7041, 7049, 7050, 7053, 7060, and the US 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 June 27, 2007. This permit expires at midnight on the expiration date identified above.

Signature: _____
Wendy L. Turri, Manager
Municipal Wastewater Section
Municipal 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

Questions on this permit?

- General permit or NPDES program questions, contact the appropriate MPCA regional office found on page two of this permit.

Submit Other WQ Reports to:

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

520 Lafayette Rd. N.; St. Paul, MN 55155-4194; 651-296-6300 (voice); 651-282-5332 (TTY)

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Appendix A: Water Treatment Plant Release Guidance & Release Reporting Form

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General Water Treatment Facility Description

Water treatment facilities (Facility) in this general permit use media filters for treatment of potable water.

Filtration is used to remove suspended particles in the source water. Media filters remove suspended solids by adsorption and straining. Single media beds or multi-media beds may be used. The most common type of filter is a rapid sand filter. There are two different types of filtration; gravity filtration and pressure filtration. In gravity filtration water is allowed to pass through the filter by gravity and in pressure filtration the water is forced through the filter under pressure.

To clean the filter, water is passed quickly upward through the filter, opposite the normal direction (called backwashing) to remove embedded particles. Prior to this, compressed air may be blown up through the bottom of the filter to break up the compacted filter media to aid the backwashing process; this is known as air scouring.

Filter backwash water is required to undergo at least 24 hours of detention time prior to discharging to the environment. Detention time allows for settling of the suspended solids. Detention time is typically accomplished through holding ponds or holding tanks. The filter backwash water that is discharged to the environment is regulated under this general permit.

Water filter backwash solids (WFBS) settled out in holding ponds or tanks are periodically cleaned out and disposed. Disposal of WFBS is regulated under this general permit. There are four options for disposal: wastewater treatment facility, landfilling, use as non-residential construction fill, and land application. The requirements for each of these options is listed in a guidance document titled, "Guidelines – Disposal Methods for Water Filter Backwash Solids," included in Appendix B.

The written Notice of Coverage from the MPCA will include:

1. A description of the Facility.
2. The location of the permitted outfall and the receiving water classification.
3. The limits and monitoring category designation (Category 1 or 2) for the Facility.
4. Any concentration-based limit applicable to the Facility (Category 2 Facilities only).
5. Locational map.

Limits and Monitoring Requirements

Category 1 Facilities - Limits and Monitoring Requirements

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

Surface Discharge Station: Effluent to Surface Water

PARAMETER	LIMIT	UNITS	LIMIT TYPE	EFFECTIVE PERIOD	SAMPLE TYPE	FREQUENCY
Flow	Monitor Only	mgd	Calendar Quarter Average	Jan - Dec	Measurement, Continuous	Daily
Flow	Monitor Only	MG	Calendar Quarter Total	Jan - Dec	Measurement, Continuous	Daily
Solids, Total Suspended (TSS)	30	mg/L	Calendar Quarter Maximum	Jan - Dec	Grab	1/Quarter
pH ¹	9.00	standard units	Calendar Quarter Maximum	Jan - Dec	Grab	1/Quarter
pH ¹	6.00	standard units	Calendar Quarter Minimum	Jan - Dec	Grab	1/Quarter
Oxidants, Total ¹ Residual (Chlorine), Continuous	0.2	mg/L	Calendar Quarter Maximum	Jan - Dec	Grab	1/Quarter
Phosphorous, Total (as P)	Monitor Only	mg/L	Calendar Quarter Average	Jan - Dec	Grab	1/Quarter

¹ Analyze immediately. This means within 15 minutes or less of sample collection.

Category 2 Facilities - Limits and Monitoring Requirements

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

Surface Discharge Station: Effluent to Surface Water

PARAMETER	LIMIT	UNITS	LIMIT TYPE	EFFECTIVE PERIOD	SAMPLE TYPE	FREQUENCY
Flow	Monitor Only	mgd	Calendar Quarter Average	Jan - Dec	Measurement, Continuous	Daily
Flow	Monitor Only	MG	Calendar Quarter Total	Jan - Dec	Measurement, Continuous	Daily
Solids, Total Suspended (TSS)	30	mg/L	Calendar Quarter Maximum	Jan - Dec	Grab	1/Quarter
pH ¹	9.00	standard units	Calendar Quarter Maximum	Jan - Dec	Grab	1/Quarter
pH ¹	6.00	standard units	Calendar Quarter Minimum	Jan - Dec	Grab	1/Quarter
Oxidants, Total ¹ Residual (Chlorine), Continuous	0.2	mg/L	Calendar Quarter Maximum	Jan - Dec	Grab	1/Quarter
Phosphorous, Total (as P)	Monitor Only	mg/L	Calendar Quarter Average	Jan - Dec	Grab	1/Quarter
Phosphorous, Total (as P) ²	As specified in NOC	kg/year	Calendar Year Total	Jan - Dec	Grab	1/Year

¹ Analyze immediately. This means within 15 minutes or less of sample collection.

² See the Surface Discharge Chapter for additional information.

DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT**Chapter 1. General -- General Water Treatment, Filtration****1. Authorization**

- 1.1 This permit authorizes the Permittee to treat and dispose of wastewater resulting from the treatment of potable water in accordance with the provisions in this chapter.
- 1.2 Wastewaters discharged to a sanitary sewage treatment system from water treatment plants are not regulated by this permit and the monitoring and effluent limits stated in this permit do not apply to the specific wastewaters discharged to the sanitary sewage treatment system.
- 1.3 This Permit authorizes the Permittee to discharge in accordance with the provisions of this general permit only after:
 - a. the Permittee seeking authorization to discharge under this general permit has submitted all of the necessary application forms to be covered under the general permit;
 - b. the Permittee meets all of the general permit applicability criteria (a.-k.) that is listed in the following section of this chapter; and
 - c. the Permittee has received a written Notice of Coverage (NOC) indicating that coverage has been granted.

2. General Permit Applicability Criteria

- 2.1 Persons wishing to discharge water from any water treatment facility under this general permit shall meet all applicability criteria listed below. Facilities which do not meet all of these applicability criteria listed below will be evaluated for issuance of individual NPDES/SDS permits under Minn. R. ch. 7001.
 - a. New discharges to surface water must be covered under an individual permit for one permit cycle prior to qualification under the general permit.
 - b. The facility is not proposing a significant upgrade.
 - c. The discharge consists of wastewater from domestic water treatment facilities.
 - d. The facility utilizes media filters as its treatment type as outlined in the facility description of this general permit.
 - e. The facility has at least 24 hour detention time prior to the discharge to the receiving water.
 - f. The discharge of wastewater to surface water will not have a significant impact on water quality.
 - g. The discharge is not a new discharge to an Outstanding Resource Value Water (ORVW).
 - h. The discharge will meet the limits assigned to the facility in the NOC and the limits and monitoring section of the general permit at the time of NOC issuance.
 - i. The discharge does not contain a contaminant that is not included in the limits and monitoring section of this general permit.
 - j. No discharge is allowed under this permit in cases where the discharge would violate surface water quality standards (Minn. R. 7050.0220).
 - k. Facilities that fail or have failed to comply with a regulation, permit schedule, or compliance order issued by the MPCA may be excluded from coverage under the general permit and required to apply for coverage under an individual permit.

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Chapter 1. General -- General Water Treatment, Filtration

3. Technology Based Effluent Limits - Category 1 Facility

- 3.1 A Category 1 Facility is required to meet technology based effluent limits (TBEL) developed for achieving secondary treatment standards and/or state discharge restrictions. The limits are specified in 40 CFR Part 133.102, Minn. R. 7053.0215 and Minn. R. 7053.0255.

4. Water Quality Based Effluent Limits - Category 2 Facility

- 4.1 A Category 2 Facility is required to meet a water quality based effluent limit (WQBEL), a wasteload allocation (WLA), or a state discharge restriction for phosphorous. A WQBEL is required when it is determined necessary to protect the use classification of the receiving water [40 CFR Part 122.44(d)]. Determination of reasonable potential and the limit development process are defined in Agency guidance (Phosphorous Decision Tree, 2010 or the most recent version). A WLA is required for facilities that discharge to an impaired surface water, watershed, or drainage basin that has an US EPA approved Total Maximum Daily Load Study (see the Total Facility chapter of this permit). Procedures for the implementation of TMDL WLAs for phosphorus are defined in Agency guidance (Phosphorous Decision Tree, 2010 or the most recent version). A state discharge restriction for phosphorous is required as defined in Minn. R. 7053.0255. Any other limit for the facility is a technology based effluent limit and/or a state discharge restriction.

5. Surface Discharges

Sampling Location

- 5.1 Samples for surface discharge stations shall be taken at a point representative of the discharge to surface waters.

Surface Discharges

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

Discharge Monitoring Reports

- 5.5 Submit a quarterly DMR by the 21 day after the end of each calendar quarter following permit issuance.

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- 5.6 For Category 2 Facilities, the Calendar Year Total Phosphorus limit in units of kg/year is calculated as follows: For each quarter, multiply the total volume of effluent flow (in million gallons) by the average concentration of effluent Phosphorus (in mg/L) and by a 3.785 conversion factor to get Phosphorus in units of kg/month. Then add all quarterly values for the year and report on the December DMR.
- 5.7 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).

Bypass Structures

- 5.8 All bypass structures shall be manually controlled and kept locked at all times.

Release/Overflow Reporting

- 5.9 Any release/overflow from the facility must be reported in accordance with the MPCA guidance document "Water Treatment Plant Release Guidance." The guidance document is located on the internet at: <http://www.pca.state.mn.us/> or by request from the MPCA.

6. Residual Solids Management

- 6.1 The Permittee shall provide for the effective management and/or disposal of residual solids, or other substances resulting from treatment of potable water.
- 6.2 The Permittee shall dispose of residual solids in such a manner and at such locations that disposal practices shall not result in unlawful pollution of the air, surface water or ground water, or create nuisance conditions.
- 6.3 Disposal of water filter backwash solids must be in accordance with the MPCA guidance documents. Facilities that land apply uncontaminated by-product lime shall follow the guidance document titled "Guidelines for Land Application of By-Product Limes." Facilities disposing of water filter backwash solids shall follow the guidance document titled "Guidelines - Disposal Methods for Water Filter Backwash Solids."

Guidance documents for proper management of residual solids are located on the internet at <http://www.pca.state.mn.us/>, or by request from the MPCA.

7. Residual Solids Management Plan Annual Report

- 7.1 Submit a Water Treatment Plant Residual Solids Annual Report due 31 days after the end of each calendar year following permit issuance. The annual report form is located on the internet at <http://www.pca.state.mn.us/> or by request from the MPCA.
- 7.2 The Water Treatment Plant Residual Solids Annual Report shall include:
- a. notification of the quantity of solids removed and the method and location of disposal; and
 - b. analytical results and land application rates, if applicable.

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8. Total Residual Oxidants - Non-Domestic

8.1 "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 0.2 mg/L or less.
- b. If the concentration of TRC in the first sample is greater than 0.2 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 0.2 mg/L limit to be in compliance.

Total Residual Chlorine must be analyzed immediately. This means within 15 minutes or less of sample collection.

A Method Detection Limit (MDL) must be established for this parameter.

The Reportable Limit (RL) must be established for this parameter. This should be based on the MDL and laboratory, analyst, and equipment used in the analysis. The Reportable Limit cannot be greater than 0.2 mg/L.

The Method Detection Limit and Reportable Limit should be reassessed when the method, equipment, laboratory, or analyst changes.

Monitoring results below the RL should be reported as "<" the Reportable Limit. For example, if the Reportable Limit is 0.01 mg/L and a parameter is not detected at a value of 0.01 mg/L or greater, the concentration shall be reported as "<0.01mg/L." The symbol "<" means "less than."

The equipment should be checked against a known standard at least monthly.

9. Permit Specific Definitions

- 9.1 Please refer to the 'Permit User Manual' included with the permit that can be found on the internet at <http://www.pca.state.mn.us/enzqb31> or on request from the MPCA.

10. Total Facilities Requirements

General Requirements

- 10.1 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, 7060, and 7080; and Minn. Stat. Sec. 115 and 116.
- 10.2 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)
- 10.3 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)
- 10.4 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 1. General -- General Water Treatment, Filtration

10. Total Facilities Requirements

- 10.5 Property Rights. This permit does not convey a property right or an exclusive privilege. (Minn. R. 7001.0150, subp. 3, item C)
- 10.6 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)
- 10.7 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)
- 10.8 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)
- 10.9 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)
- 10.10 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.
- 10.11 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.
- 10.12 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)
- 10.13 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

- 10.14 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))
- 10.15 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)
- 10.16 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 1. General -- General Water Treatment, Filtration

10. Total Facilities Requirements

- 10.17 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.
- 10.18 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)
- 10.19 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.
- 10.20 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:

DMR Supplemental Form

Individual values for each sample and measurement must be recorded on the DMR Supplemental Form which, if required, will be provided by the MPCA. DMR Supplemental Forms shall be submitted with the appropriate DMRs. You may design and use your own Supplemental Form; 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 DMR Supplemental Form does not comply with the reporting requirements.

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Chapter 1. General -- General Water Treatment, Filtration

10. Total Facilities Requirements

10.21 Submitting Reports. DMRs and DMR Supplemental Forms shall be submitted to:

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

DMRs, DMR Supplemental Forms and related attachments may be electronically submitted via the MPCA Online Services Portal after authorization is approved. When electronically submitted, the paper DMR submittal requirement is waived.

DMRs and DMR Supplemental Forms shall be postmarked or electronically submitted by the 21st day of the month following the sampling period or as otherwise specified in this permit. Electronic DMR submittal must be complete on or before 11:59 PM of the 21st day of the month following the sampling period or as otherwise specified in the 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

- 10.22 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)
- 10.23 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)

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10. Total Facilities Requirements

10.24 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:

- a. If one or more values are greater than the level of detection, substitute zero for all nondetectable values to use in the average calculation.
- b. If all values are below the level of detection, report the averages as "<" the corresponding level of detection.
- c. 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)

10.25 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)

10.26 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

10.27 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)

10.28 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)

10.29 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))

DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT**Chapter 1. General -- General Water Treatment, Filtration****10. Total Facilities Requirements**

10.30 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. If the Permittee discovers that noncompliance with a condition of the permit has occurred which could endanger human health, public drinking water supplies, or the environment, the Permittee shall within 24 hours of the discovery of the noncompliance, orally notify the commissioner and submit a written description of the noncompliance within 5 days of the discovery. The written description shall include items a. through e., as listed below. If the Permittee discovers other noncompliance that does not explicitly endanger human health, public drinking water supplies, or the environment, the noncompliance shall be reported during the next reporting period to the MPCA with its Discharge Monitoring Report (DMR). If no DMR is required within 30 days, the Permittee shall submit a written report within 30 days of the discovery of the noncompliance. This description shall include the following information:

- a. a description of the event including volume, duration, monitoring results and receiving waters;
- b. the cause of the event;
- c. the steps taken to reduce, eliminate and prevent reoccurrence of the event;
- d. the exact dates and times of the event; and
- e. steps taken to reduce any adverse impact resulting from the event.

10.31 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)

10.32 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.

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Chapter 1. General -- General Water Treatment, Filtration

10. Total Facilities Requirements

- 10.33 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.

Operation and Maintenance

- 10.34 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.
- 10.35 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)
- 10.36 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)
- 10.37 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)
- 10.38 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

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Chapter 1. General -- General Water Treatment, Filtration

10. Total Facilities Requirements

- 10.39 Permit Modifications. Except as provided under Minnesota Statutes, section 115.07, subdivisions 1 and 3, 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.

- 10.40 Construction. Construction may begin at the Permittee's own risk once the Permittee submits plans and specifications to the MPCA unless:
- a. the action taken is prohibited by federal law or regulation;
 - b. the Permittee is a municipality constructing a wastewater system with a design flow of 0.200 million gallons per day or less;
 - c. the action taken is subject to environmental review under chapter 116D, and prohibited from commencing construction until that process is completed;
 - d. the action taken is subject to a grant or loan agreement under chapter 446A;
 - e. the action taken requires a construction storm water permit of the agency; or
 - f. the action taken requires a subsurface sewage treatment system permit under rules of the agency.

In the cases specified in a. through f. above, no construction shall begin until the Permittee receives written approval of plans and specifications from the MPCA.

In all cases, the Permittee is prohibited from operating the system or discharging pollutants into the waters of the state until a written permit for the discharge is granted by the MPCA and until plans and specifications for the disposal system have been approved, unless the MPCA waives the submission of plans and specifications. (Minn. Stat. 115.07, subd. 1 and 3)

- 10.41 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.

- 10.42 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)

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Chapter 1. General -- General Water Treatment, Filtration

10. Total Facilities Requirements

10.43 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. The aquatic toxicity information shall include at a minimum the results of: a) a 48-hour LC50 or EC50 acute study for a North American freshwater planktonic crustacean (either Ceriodaphnia or Daphnia sp.) and b) a 96-hour LC50 acute study for rainbow trout, bluegill or fathead minnow or another North American freshwater aquatic species other than a planktonic crustacean;
- 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. (Minn. R. 7001.0170)

10.44 Upon review of the information submitted regarding the proposed chemical additive, the MPCA may require that 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.

10.45 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.

10.46 TMDL Impacts. Facilities that discharge to an impaired surface water, watershed or drainage basin may be required 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, necessary to ensure consistency with the assumptions and requirements of any applicable US EPA approved waste load allocations resulting from Total Maximum Daily Load (TMDL) studies.

10.47 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 1. General -- General Water Treatment, Filtration

10. Total Facilities Requirements

10.48 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.

10.49 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.



Minnesota
Pollution
Control
Agency

Water Treatment Plant Release Guidance

Water Quality/Wastewater Treatment Plant/#1.05 • August 2007

This fact sheet provides guidance for the proper notification and sampling in the event of a water treatment plant release/overflow.

Background

Water filter backwash is generated when potable water treatment plants treat well water or surface water to reduce suspended and dissolved solids.

Sand filter systems pump well water into the top of a tank that is pressurized or gravity fed down through a porous (usually sand-rock) media. Periodically the filter media is backwashed to remove the entrained solids.

Water filter backwash is conveyed to wastewater treatment facilities, settling basins/ponds, or reclaim tanks. Many water treatment plants have a release/overflow point that enables the water to discharge outside the plant in the event of an emergency.

In the event of a release, the city/facility must take all necessary precautions to prevent nuisance conditions that may be created by the release. The city/facility must notify the Minnesota Duty Officer of the release within 24 hours and must take samples of the water released to the environment.

Minn. R. 7050.0210, subp. 2

Nuisance conditions prohibited. No sewage, industrial waste, or other wastes shall be discharged from either a point or non-point sources into any waters of the state so as to cause any nuisance conditions, such as the presence of significant amounts of floating solids, scum, visible oil film, excessive suspended solids, material discoloration, obnoxious odors, gas ebullition, deleterious sludge deposits, undesirable slimes or fungus growth, aquatic habitat degradation, excessive growths of aquatic plants, or other offensive or harmful effects.

Minn. Stat. § 115.061; Duty to Notify and Avoid Water Pollution

(a) Except as provided in paragraph (b), it is the duty of every person to notify the agency immediately of the discharge, accidental or otherwise, of any substance or material under its control which, if not recovered, may cause pollution of waters of the state, and the responsible person shall recover as rapidly and as thoroughly as possible such substance or material and take immediately such other action as may be reasonably possible to minimize or abate pollution of waters of the state caused thereby.

What to do in the event of a release:

1. Take all reasonable steps to immediately end the release.
2. Notify the Minnesota Department of Public Safety Duty Officer at 800-422-0798 (toll free) or 651-649-5451 (metro area) immediately upon discovery of the release. In addition, you may also contact the Minnesota Pollution Control Agency (MPCA) during business hours at 800-657-3864
3. Collect representative samples of the release. The MPCA may be contacted during business hours to discuss the sampling parameters and protocol.
4. Submit the sampling results and release information to the MPCA using the Water Treatment Plant Sampling Report form. This form can be found at <http://www.pca.state.mn.us>, or by request from the MPCA.

Sampling requirements

Parameter	Units	Sample Type
Flow	mgd	Measurement, Continuous
TSS	mg/L	Grab
pH ¹	standard units	Grab
Phosphorus, Total (as P)	mg/L	Grab

mgd = million gallons per day

TSS = Total Suspended Solids

mg/L = milligrams per liter

**RELEASE SAMPLING REPORT
Water Treatment Plants**



Minnesota Pollution
Control Agency

FACILITY NAME/ADDRESS:

Duty Officer Report No.	

PERMITTEE NAME/ADDRESS:

1.	Receiving Waters:	
2.	Release Start Date:	
3.	Release Start Time:	
4.	Release Discovery Date:	
5.	Release Discovery Time:	
6.	Release Anticipated? (Yes/No)	
7.	Location of Release:	
8.	Release Related to Wet Weather? (Yes/No/Unknown)	

COMMENTS:

The definition of an “anticipated bypass” is a known equipment shutdown.

REPORT THE SAMPLING DATA FOR THIS RELEASE ON THE BACK SIDE OF THIS FORM.

RELEASE SAMPLING REPORT Water Treatment Plants



Minnesota Pollution
Control Agency

FACILITY NAME/ADDRESS:

Duty Officer Report No.	

PERMITTEE NAME/ADDRESS:

The following parameters are commonly required for water treatment plants. For permitted facilities, the permit may require you to sample for additional parameters or multiple samples. Either add them at the bottom of this page or make additional copies of this page.

PARAMETER	VALUE MEASURED	UNIT	SAMPLE DATE	SAMPLE TIME
Flow [50050]		MG		
TSS [00530]		mg/L		
pH [00400]		SU		
Phosphorus, Total (as P) [00665]		mg/L		
Discharge Duration [81381]		hours		
Discharge Duration [81381]		day/mo		

Send immediately upon completion of form (no later than 30 days after the release) to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE RD N ST. PAUL, MN 55155-4194 ATTN: WQ Submittals – Release Sampling Report	<i>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, complete, and accurate.</i>	_____ SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT DATE	
		_____ SIGNATURE OF CHIEF OPERATOR PHONE DATE CERTIFICATION #	



**Minnesota
Pollution
Control
Agency**

Guidelines-Disposal Methods for Water Filter Backwash Solids

Water Quality/Wastewater Permits #2.02 • May 2007

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WFB:

Water Filter Backwash consists of both a liquid supernatant that contains dissolved and suspended solids, and a more solid sludge that has precipitated out of solution.

WFBS:

Water Filter Backwash Solids. These are the solids present following the backwash of water treatment media. This is considered a solid waste.

This fact sheet is intended to provide guidance for the proper disposal of water treatment backwash by-product.

Background

Water filter backwash (WFB) is generated when potable water treatment plants treat their well water to reduce suspended and dissolved solids.

Sand filter systems pump well water into the top of a tank that is pressurized or gravity fed down through a porous (usually sand-rock) media. Periodically the filter media is backwashed to remove the entrained solids.

Water filter backwash is conveyed to wastewater treatment facilities (WWTF) or is slurried to smaller settling tanks or ponds. To reduce wastewater treatment costs some municipalities' route the supernatant to settling facilities and the sludge to a WWTF, or the other way around. WFB routed to a settling facility need to be periodically cleaned out. The frequency will depend on the size of the tank or pond; and the volume and concentration of solids in the effluent.

Options for managing WFB include slurring the material to a WWTF, landfilling, using as non-residential construction fill, or land application. Before deciding to dispose of WFB at a WWTF, you should contact the WWTF to fully discuss this option including: (1) available capacity of the WWTF; and (2) potential need to submit a sanitary sewer extension (SSE) permit application.

As described in Minn. R. 7035.0300 subp. 100 water filter backwash solids (WFBS) are considered a solid waste. If the material is either landfilled or land applied, it must be tested and handled in accordance with this guidance document.

Options for WFB/WFBS disposal:

1. **Wastewater Treatment Facility**
2. **Landfill**
3. **Construction Fill**
4. **Land Application**

Steps for landfilling WFBS

1. The WFBS must pass the paint filter test (i.e. is a solid) to be accepted in a landfill.
2. Test and compare the material for the analytes and standards listed in the landfill's industrial solid waste management plan.
3. For unlined landfills radium 226 (Ra) concentrations cannot exceed 5 pCi/g. For lined landfills Ra concentrations cannot exceed 30 pCi/g. If radium in the WFBS exceeds 30 pCi/g options for its disposal must be arranged with the Minnesota Department of Health's Radiation Section.
4. If the test results are in alignment with the landfill's industrial solid waste management plan, the WFBS may be taken to a MPCA permitted landfill.

Steps for using WFBs as construction fill

1. Test the material for the analytes listed in Table 1.
2. Using the analytical results, and formulas provided, determine whether the cumulative land applications limits listed in Table 1 are met.

If the results are below the limits in Table 1, the material may be used as fill for non-residential projects.

Steps for land applying WFB

1. Test the material for the analytes listed in Table 1.
2. Using the analytical results, and formulas provided, determine whether the cumulative land applications limits listed in Table 1 are met.
3. Determine the suitability of your site for land application using Tables 2-4.
4. Send in written notification to the county solid waste officer, and either the township clerk or city mayor, which ever is applicable, to provide local officials an opportunity to comment on the proposed application site.
5. Land apply the WFB in accordance with these guidelines.
6. Keep adequate records for future use.

Testing water filter backwash

Each time the WFB is to be land applied, a representative sample of the WFB must be collected in a way that provides a sample of the material which is actually land applied. For WFB this requires that an adequate number of subsamples be collected and composited into a single sample. The sample is then sent to a certified laboratory for testing. In addition to the parameters listed in Table 1, any chemical additives present in the WFB must also be analyzed. The results of these tests will be used to calculate the acceptable application rates for the by-product.

Table 1

Analytic parameters and cumulative limits for WFB

Parameter (Totals in mg/kg)	Cumulative Limits for land application
Radium 226	4.5 (milliCi/acre)
Arsenic	37 lb/acre
Barium	No Limit Established
Cadmium	No Limit Established
Copper	No Limit Established
Lead	No Limit Established
Manganese	No Limit Established
Mercury	No Limit Established
Molybdenum	No Limit Established
Nickel	No Limit Established
Selenium	No Limit Established
Zinc	No Limit Established
% percent solids	No Limit Established

If you have questions about what to test for, please contact the MPCA. If you have questions about sampling procedures, please contact your lab.

Formulas used to determine cumulative limits:

Maximum Application Rates Based on Radium and Arsenic:

Max. application = $37 \text{ lb/acre} \div (\text{arsenic conc.} \times 0.002)$

Based on arsenic (mg/kg)

Max. application = $4.5 \text{ milliCi/ac} \div (\text{radium 226 conc.} \times 0.0009)$

Based on radium 226 (pCi/g)

*** The maximum allowable WTB application is the lesser of the two results above minus any amount applied to the site from previous applications.**

Actual Arsenic Arsenic Actual application
Loading rate = Concentration x rate of solids x 0.002
(lbs/acre) (mg/kg) (dry tons/acre)

Actual Ra-226 Ra-226 Actual application
Loading rate = Concentration x rate of solids x 0.0009
(milliCi/acre) (pCi/g) (dry tons/acre)

Solids Applied = $\text{gal/acre} \times \% \text{ total solids} \div 240$
(dry tons/acre) Applied (as a decimal fraction)

Solids Applied = $\text{Wet tons/acre} \times \% \text{ total solids}$
(dry tons/acre) Applied (as a decimal fraction)

Site suitability criteria

All criteria in this section, including slope restrictions, site suitability criteria, and separation distances as provided in the following tables must be met for a site to be suitable for land application.

Table 2
Slope restrictions for application sites

Slope (percent)	Injection or Immediate Incorporation
0-12	Allowed
>12	Not Allowed

Table 3
Soil Suitability Criteria

Characteristic	Minimum Requirement ¹
Soil texture at the zone of by-product application	fine sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, sandy clay, silty clay loam, silty clay, or clay
Depth to bedrock	3 feet
Depth to seasonal high water table ²	3 feet

¹ This information 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 individual.

Site Selection and Use

It is recommended that a Type IV certified operator determine the suitability of each site for application and be responsible for properly land spreading the WFB. The site selection process should also include the following steps:

1. Determine that the soils located on the site meet all site suitability criteria;
2. If the site has received WTB in the past, determine the amount of pollutant that can be applied to the site. This is done by subtracting the cumulative amount of pollutant applied to the site from previous application from the cumulative pollutant limit in Table 1.

Provide written notification to the county solid waste officer, and either the township clerk or city mayor (depending on the location of the site). Notifications must include a description of the WFB, and how the WFB will be land applied including any staging or storage that will occur prior to land application.

Miscellaneous management practices/restrictions

1. WFB must be incorporated or injected within 48 hours;
2. Application of WFB is not allowed on areas of a site ponded with water or liquid;
3. No runoff of the WFB from the application site is allowed;
4. No significant surface ponding of liquid WFB is allowed after 6 hours of the application;
5. All WFB which are land applied must be uniformly distributed over the area of the site used during application; and
6. Wind-blown WFB is not allowed.

Record keeping requirements

1. A map which identifies the exact site location and year of application;
2. Testing results and application rates;
3. The crop of vegetation grown on the site;
4. Daily hauling records which indicate quantities transferred to storage or land applied with the storage or site location identified;
5. The cumulative quantity of pollutant applied to the site from all applications of WTB;
6. A cumulative total of the quantity of material applied on each site for the cropping year;
7. A copy of written information provided to each end user of the WFB, this includes any test results;
8. A copy of notification letters submitted to each city, county, and township.

Table 4
Minimum separation distances from land application sites

Feature	Incorporated or Injected With 48 Hours	
Private drinking water supply wells	200 ft.	
Public drinking water supply Wells	1000 ft.	
Lakes, rivers, streams, ditches, wetlands, intermittent streams, or tile inlets connected to these surface water features ¹	slope 0%-6%	50 ft.
	slope 6%-12%	100 ft
Grassed Water Ways ²	33 ft.	

¹ Intermittent stream means a drainage channel with definable banks that provides for runoff flow to any of the surface waters listed in the above table during snow melt or rainfall events.

² Grassed waterways are natural or constructed and seeded to grass as protection against erosion. Separation distances are from the centerline of grassed waterways. For a grassed waterway which is wider than the separation distances required, application is allowed to the edge of the grass strip.

Annual report

An annual report is only required for those facilities with a surface or subsurface discharge permitted by the MPCA.

A report of all water filter backwash solids disposal activities for the past cropping year must be submitted by December 31 of each year on the Annual Report Form. An electronic version of this form is available at the following address: <http://www.pca.state.mn.us>. The annual report must include the following information:

1. Method of disposal;
2. Total quantity disposed; and
3. Location of disposal; and
4. Analytical results.
5. Cumulative amount of arsenic and Radium-226 pollutant applied to the application site.

For assistance you may contact

For further assistance, contact the MPCA Customer Assistance Center at 651-297-2274, or 800-646-6247.

Terms/Definitions

Cropping Year means a year beginning on September 1 of the year prior to the growing season and ending August 31 the year the crop is harvested. For example, the 1994 cropping year began September 1, 1993 and ended August 31, 1994.

End User means the person that has accepted the IBP for their use as a soil amendment.

Immediately Incorporated means incorporated into the soil with tillage within 48 hours after surface application of an IBP.

Industrial By-product (IBP) has the same meaning as “solid waste” given in Minnesota Rules part 703 5.0300.

Type IV Certified Operator or Inspector means a person certified according to Minnesota Rules chapter 7048 for land application.

Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands must have the following attributes: (1) a predominance of hydric soils; (2) inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in a saturated soil condition; and (3) under normal circumstances support a prevalence of such vegetation.