MINNESOTA POLLUTION CONTROL AGENCY

State Disposal System

MN0068411

Permittee:	Twin City Tanning LLP		
Facility name:	Twin City Tanning LLP		
City or Township:	South Saint Paul	**County:**	Dakota
Issuance date:	TBD		
Expiration date:	TBD		

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, 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 the U.S. Clean Water Act, Minnesota statutes and rules, and federal laws and regulations.

This permit is effective on the issuance date identified above. This permit expires at midnight on the expiration date identified above.

Signature:

This document has been electronically signed.

for the Minnesota Pollution Control Agency

Brandon Montgomery
Supervisor
Water Section
Industrial Division

Resources

Submit electronic Discharge Monitoring Reports (eDMR) via the MPCA e-Services at: https://rsp.pca.state.mn.us/TEMPO_RSP/Orchestrate.do?initiate=true

Submit documents electronically to wq.submittals.mpca@state.mn.us. **Note:** The Water quality submittals form located at https://www.pca.state.mn.us/sites/default/files/wq-wwprm7-71.docx must be attached.

For eDMR and other permit reporting issues, use the directory listed at the bottom of the Discharge Monitoring Report page: https://www.pca.state.mn.us/water/discharge-monitoring-reports

For specific permit requirements, contact your compliance staff: https://www.pca.state.mn.us/water/wastewater-compliance-and-enforcement-staff-contacts

For wastewater permit program general questions, contact the MPCA at 651-282-6143 or 800-657-3938, or reference the permit user's manual at https://www.pca.state.mn.us/sites/default/files/wq-wwtp7-09.pdf.

Additional guidance and resources are located at: https://www.pca.state.mn.us/water/wastewater.

A printable summary of sampling requirements can be found at: https://www.pca.state.mn.us/water/wastewater-permit-submittal-checklists.

A printable checklist of submittals can be found at: https://www.pca.state.mn.us/water/wastewater-permit-submittal-checklists

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1. Permitted facility description

The Twin City Tanning LLP facility (facility) is located at 501 Malden St, South Saint Paul, Minnesota 55075-5936, Dakota County.

The principal activity at the facility is the processing of cattle hides into chrome tanned leather. The source of the facility's makeup water is from the South St. Paul municipal city water supply at a maximum rate of 500,000 gallons per day. The facility uses approximately 175 million gallons of water annually to facilitate the production process.

The industrial by-product (IBP) is generated from wastewater pretreatment. Waste from washing cattle hides are routed through a clarifier. Two main wastewaters are produced, which are either treated in the sulfide oxidation process, or are treated for chrome recovery. Wastewater entering the sulfide oxidation process contains dirt, blood, salt, proteins, sodium chloride, sulfides, sulfates, liming agents, calcium hydroxide and low pH sulfuric acid from the pickling process. The IBP for land application is the result of the pretreatment of wastewater from the sulfide oxidation process. None of the wastewaters containing residual chrome from the tanning process are discharged into the pretreatment system from where the IBP is generated.

Solids from the sulfide oxidation process are periodically removed, pH adjusted to lower pH prior to land application, and land applied at agronomic rates during the cropping season. The IBP is land applied continuously throughout the year typically at rates of twice per day, up to four times per day and land applied with a tanker truck by a licensed applicator within two hours of leaving the facility. If the facility is not able to apply their byproducts, it is discharged to the municipal wastewater treatment system, Metropolitan Council Environmental Services (MCES) - Metro Plant. Prior to 2008, all IBP was discharged to MCES without adverse impact.

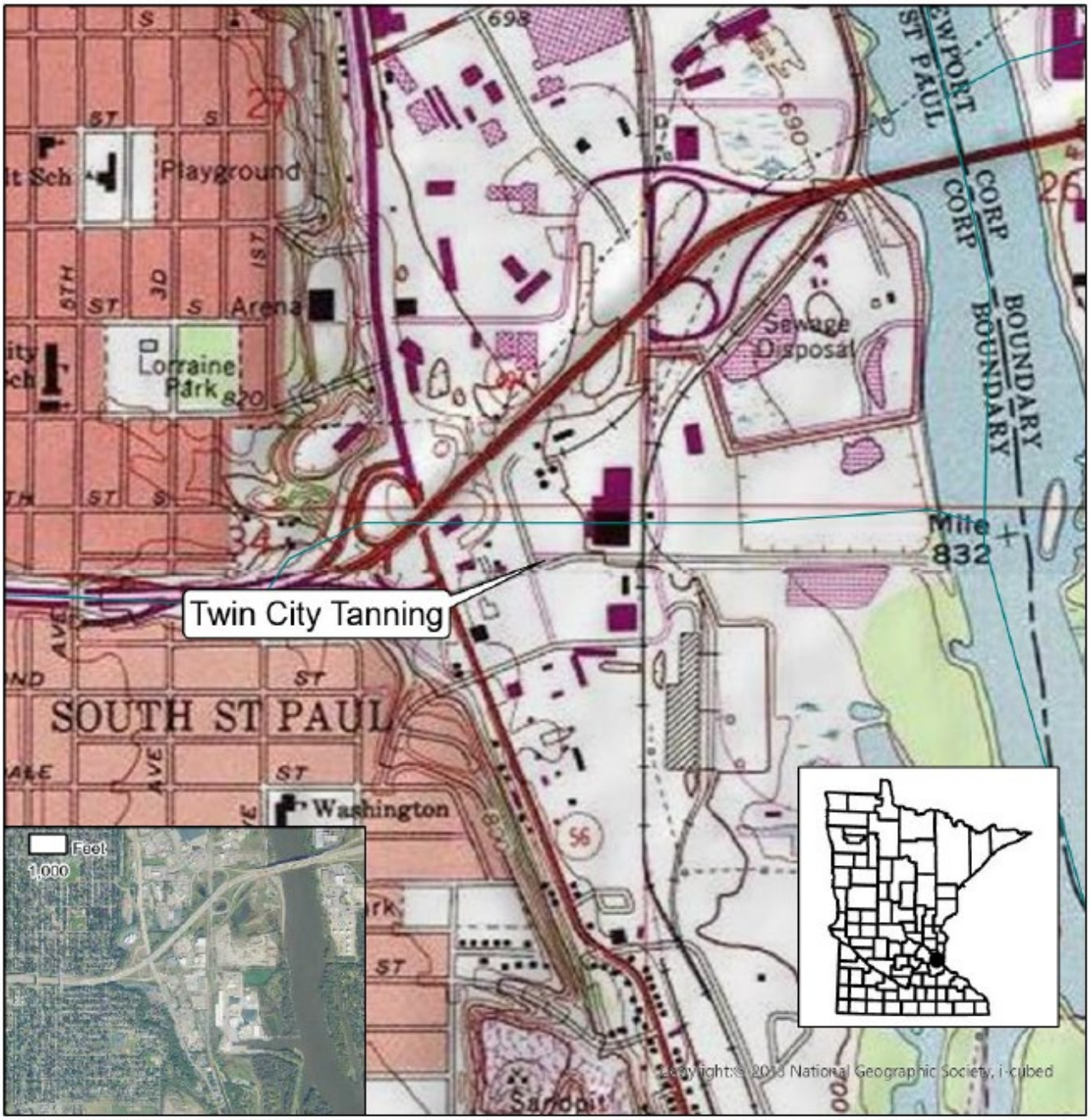
There are two indoor 10,000-gallon tanks that store the solid material before it is transferred directly from the storage tanks to the tanker trucks for transport to the land application site.

Sanitary waste is sent directly to MCES and is not covered by this permit.

This facility has applied for and obtained a Certification of No Exposure with the Industrial Stormwater Program in accordance with ISW General Permit.

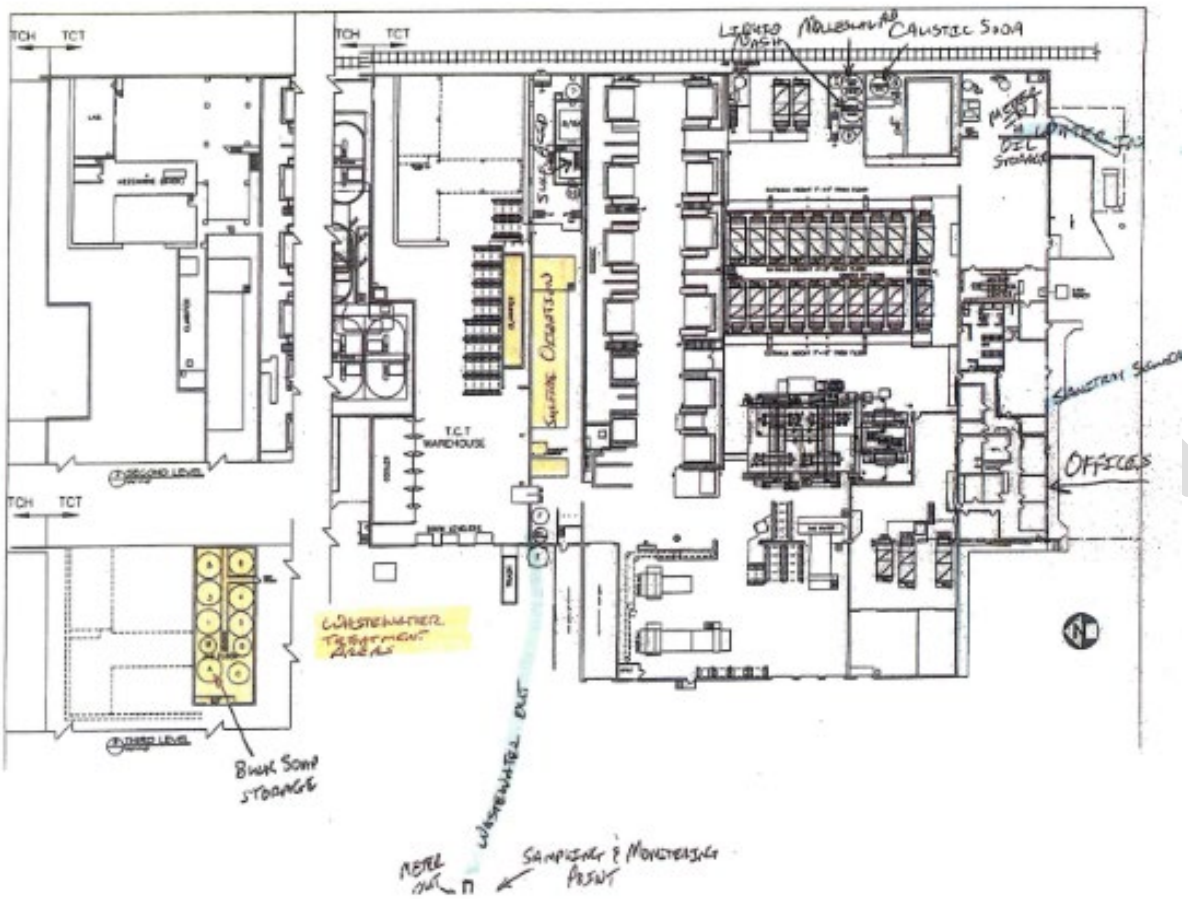
2. Location map of permitted facility

Facility Location Map
MN0068411: Twin City Tanning
T28N, R22W, Section 34
South Saint Paul, Dakota County, Minnesota



Map produced by: MPCA Staff, 4/30/2026
Scale: 1:12,000

3. Flow diagram



4. Summary of stations and station locations

Station	Type of station	Local name	PLS location
LA 302	Non-biosolids WWT/Sludge Appl Site	KLM5 (Wolleat, B)	T35N, R20W, S17, NW Quarter
LA 303	Non-biosolids WWT/Sludge Appl Site	KLM8 (KLM Fams)	T35N, R21W, S11, SW Quarter
LA 304	Non-biosolids WWT/Sludge Appl Site	RK40 (Kermit, E)	T35N, R25W, S25, NW Quarter
LA 305	Non-biosolids WWT/Sludge Appl Site	RK2 (Sparrow, M)	T34N, R25W, S24, SW Quarter
LA 306	Non-biosolids WWT/Sludge Appl Site	RK44 (Bervan, D)	T34N, R25W, S24, NW Quarter
LA 307	Non-biosolids WWT/Sludge Appl Site	RK45 (Sparrow, G)	T34N, R25W, S24, NW Quarter
LA 308	Non-biosolids WWT/Sludge Appl Site	PM1 (Montain, P)	T35N, R20W, S35, SW Quarter
LA 309	Non-biosolids WWT/Sludge Appl Site	PM2 (Montain, P)	T34N, R20W, S03, NE Quarter
LA 310	Non-biosolids WWT/Sludge Appl Site	PM3 (Montain, P)	T35N, R20W, S28, NW Quarter
LA 311	Non-biosolids WWT/Sludge Appl Site	KD47 (Goldstrand, B)	T30N, R20W, S08, NW Quarter
LA 312	Non-biosolids WWT/Sludge Appl Site	IS2 (Stolp, I)	T35N, R20W, S09, SE Quarter of the SE Quarter
LA 313	Non-biosolids WWT/Sludge Appl Site	IS10 (Stolp, I)	T35N, R20W, S10, SW Quarter of the SW Quarter
LA 314	Non-biosolids WWT/Sludge Appl Site	KD42 (Peterson, M)	T30N, R21W, S11, NE Quarter
LA 315	Non-biosolids WWT/Sludge Appl Site	RL1 (Allhiser, R)	T110N, R15W, S03, NE Quarter
LA 316	Non-biosolids WWT/Sludge Appl Site	KD45 (Dewolf, K)	T30N, R21W, S02, SW Quarter
LA 317	Non-biosolids WWT/Sludge Appl Site	KD46 (Dewolf, K)	T30N, R21W, S01, SW Quarter
LA 318	Non-biosolids WWT/Sludge Appl Site	KD43 (Dewolf, K)	T31N, R20W, S19, SW Quarter
LA 319	Non-biosolids WWT/Sludge Appl Site	KD44 (Dewolf, K)	T31N, R20W, S19, SW Quarter
LA 320	Non-biosolids WWT/Sludge Appl Site	RL2 (Poquette, S)	T110N, R17W, S35, NE Quarter of the SE Quarter
LA 321	Non-biosolids WWT/Sludge Appl Site	AS97 (Boelter, W)	T34N, R24W, S02, SW Quarter
LA 322	Non-biosolids WWT/Sludge Appl Site	AS98 (Boelter, W)	T34N, R24W, S02, SW Quarter
LA 323	Non-biosolids WWT/Sludge Appl Site	AS99 (Boelter, W)	T34N, R24W, S02, SW Quarter

LA 324	Non-biosolids WWT/Sludge Appl Site	40E (White Rock Lake Farm)	T32N, R20W, S30, NW Quarter
LA 325	Non-biosolids WWT/Sludge Appl Site	40C (White Rock Lake Farm)	T32N, R20W, S30, NW Quarter
LA 326	Non-biosolids WWT/Sludge Appl Site	40W (White Rock Lake Farm)	T32N, R20W, S30, SW Quarter
LA 327	Non-biosolids WWT/Sludge Appl Site	IS11 (Minar, TI)	T35N, R20W, S04, SE Quarter of the SE Quarter
LA 328	Non-biosolids WWT/Sludge Appl Site	IS12 (Minar, TI)	T35N, R20W, S04, SE Quarter of the SE Quarter
LA 329	Non-biosolids WWT/Sludge Appl Site	BSS-1E (St Sauver, B)	T32N, R20W, S10, SE Quarter
LA 330	Non-biosolids WWT/Sludge Appl Site	BSS-1F (St Sauver, B)	T32N, R20W, S10, NE Quarter
LA 331	Non-biosolids WWT/Sludge Appl Site	BSS-1G (St Sauver, B)	T32N, R20W, S10, NE Quarter
LA 332	Non-biosolids WWT/Sludge Appl Site	BSS-1H (St Sauver, B)	T32N, R20W, S10, NE Quarter
LA 333	Non-biosolids WWT/Sludge Appl Site	BSS-10A (Vietor, L)	T31N, R21W, S12, NE Quarter
LA 334	Non-biosolids WWT/Sludge Appl Site	BSS-10B (St Sauver, B)	T31N, R21W, S12, NE Quarter
LA 335	Non-biosolids WWT/Sludge Appl Site	BSS-5A (Crain, R)	T32N, R20W, S09, NE Quarter
LA 336	Non-biosolids WWT/Sludge Appl Site	BSS-5B (Crain, R)	T32N, R20W, S09, NE Quarter
LA 337	Non-biosolids WWT/Sludge Appl Site	AS20 (Ryan, D)	T35N, R24W, S36, NW Quarter
LA 338	Non-biosolids WWT/Sludge Appl Site	RN1 (Nelson, R)	T34N, R21W, S04, SE Quarter
LA 339	Non-biosolids WWT/Sludge Appl Site	PF2 (EJ Houle Inc)	T33N, R21W, S05, SW Quarter
LA 340	Non-biosolids WWT/Sludge Appl Site	PF3 (EJ Houle Inc)	T33N, R21W, S05, SW Quarter
LA 341	Non-biosolids WWT/Sludge Appl Site	PF4 (EJ Houle Inc)	T33N, R21W, S05, SE Quarter
LA 342	Non-biosolids WWT/Sludge Appl Site	RS20 (Anderson, S)	T30N, R21W, S27, NE Quarter
LA 342	Non-biosolids WWT/Sludge Appl Site	RS20 (Anderson, S)	T30N, R21W, S27, NW Quarter
LA 343	Non-biosolids WWT/Sludge Appl Site	BSS-1A (St Sauver, B)	T32N, R20W, S10, SW Quarter
LA 344	Non-biosolids WWT/Sludge Appl Site	BSS-1C (St Sauver, B)	T32N, R20W, S10, SE Quarter
LA 345	Non-biosolids WWT/Sludge Appl Site	BSS-1D (St Sauver, B)	T32N, R20W, S10, SE Quarter
LA 346	Non-biosolids WWT/Sludge	BSS-11A (Booren, D)	T32N, R20W, S20, NW Quarter

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LA 347	Non-biosolids WWT/Sludge Appl Site	BSS-11B (Booren, D)	T32N, R20W, S20, NW Quarter
LA 348	Non-biosolids WWT/Sludge Appl Site	BSS-11C (Booren, D)	T32N, R20W, S20, NW Quarter
LA 349	Non-biosolids WWT/Sludge Appl Site	BSS-16A (Larson, R)	T32N, R20W, S08, SE Quarter
LA 350	Non-biosolids WWT/Sludge Appl Site	BSS-16B (Larson, R)	T32N, R20W, S08, SE Quarter
LA 351	Non-biosolids WWT/Sludge Appl Site	BSS-16C (Larson, R)	T32N, R20W, S17, NE Quarter
LA 352	Non-biosolids WWT/Sludge Appl Site	BSS-52A (Arcand, H)	T31N, R21W, S29, SW Quarter
LA 353	Non-biosolids WWT/Sludge Appl Site	BSS-52B (Arcand, H)	T31N, R21W, S29, SW Quarter
LA 354	Non-biosolids WWT/Sludge Appl Site	BSS-52C (Arcand, H)	T31N, R21W, S29, SW Quarter
LA 355	Non-biosolids WWT/Sludge Appl Site	BSS-21 (St Sauver, B)	T31N, R20W, S04, NW Quarter
LA 356	Non-biosolids WWT/Sludge Appl Site	BSS-22 (Crain, R)	T32N, R20W, S04, SE Quarter
LA 357	Non-biosolids WWT/Sludge Appl Site	BSS-14A (Sodergren, G)	T32N, R20W, S14, NE Quarter
LA 358	Non-biosolids WWT/Sludge Appl Site	BSS-66 (Barton Sand & Gravel)	T32N, R20W, S08, NW Quarter
LA 359	Non-biosolids WWT/Sludge Appl Site	BSS-67 (Barton Sand & Gravel)	T32N, R20W, S08, NW Quarter
LA 360	Non-biosolids WWT/Sludge Appl Site	JC01 (Charpenter, J)	T34N, R21W, S09, SW Quarter
LA 361	Non-biosolids WWT/Sludge Appl Site	DA1 (Aderman, D)	T31N, R20W, S20, SW Quarter
LA 362	Non-biosolids WWT/Sludge Appl Site	DA2 (Aderman, D)	T31N, R20W, S20, SW Quarter
LA 363	Non-biosolids WWT/Sludge Appl Site	LL6 (Lundeen, L)	T35N, R25W, S36, NE Quarter
LA 364	Non-biosolids WWT/Sludge Appl Site	LL7 (Lundeen, L)	T35N, R24W, S30, SW Quarter
LA 365	Non-biosolids WWT/Sludge Appl Site	LL8 (Lundeen, L)	T35N, R25W, S25, SE Quarter
LA 366	Non-biosolids WWT/Sludge Appl Site	LL9 (Lundeen, L)	T35N, R25W, S25, SE Quarter
LA 367	Non-biosolids WWT/Sludge Appl Site	DA3 (Madline, G)	T30N, R21W, S34, NW Quarter
LA 368	Non-biosolids WWT/Sludge Appl Site	DA5 (Lefgren, R)	T31N, R19W, S29, NE Quarter
LA 369	Non-biosolids WWT/Sludge Appl Site	DA6 (Lefgren, R)	T31N, R19W, S29, NE Quarter

LA 370	Non-biosolids WWT/Sludge Appl Site	DA7 (Maile, J)	T30N, R21W, S10, NW Quarter
LA 371	Non-biosolids WWT/Sludge Appl Site	DA8 (Morgon, D)	T31N, R19W, S10, NE Quarter
LA 372	Non-biosolids WWT/Sludge Appl Site	DA9 (Lake Bangston)	T30N, R21W, S22, SE Quarter
LA 373	Non-biosolids WWT/Sludge Appl Site	LE1 (Ehret, L)	T31N, R21W, S24, NE Quarter
LA 374	Non-biosolids WWT/Sludge Appl Site	LE2 (Ehret, L)	T31N, R21W, S24, NE Quarter
LA 375	Non-biosolids WWT/Sludge Appl Site	DA20 (Egan, P)	T30N, R21W, S25, NE Quarter
LA 376	Non-biosolids WWT/Sludge Appl Site	BSS72 (St Sauver, B)	T31N, R20W, S04, NW Quarter
LA 377	Non-biosolids WWT/Sludge Appl Site	RC31 (Saint Francis city of)	T34N, R24W, S22, SE Quarter
LA 378	Non-biosolids WWT/Sludge Appl Site	RC31A (Saint Francis city of)	T34N, R24W, S22, SE Quarter
LA 379	Non-biosolids WWT/Sludge Appl Site	RC31B (Saint Francis city of)	T34N, R24W, S22, SE Quarter
LA 380	Non-biosolids WWT/Sludge Appl Site	RC32 (Saint Francis city of)	T34N, R24W, S22, SE Quarter
LA 381	Non-biosolids WWT/Sludge Appl Site	RC32A (Saint Francis city of)	T34N, R24W, S22, SE Quarter
LA 382	Non-biosolids WWT/Sludge Appl Site	RS25 (Gunderson, W)	T30N, R21W, S26, SW Quarter
LA 383	Non-biosolids WWT/Sludge Appl Site	GS99 (Corrow, C)	T34N, R27W, S01, SE Quarter
LA 384	Non-biosolids WWT/Sludge Appl Site	RC30 (Novak, R)	T34N, R24W, S17, NW Quarter
LA 385	Non-biosolids WWT/Sludge Appl Site	PN10 (Lasse, D)	T34N, R23W, S05, SE Quarter
LA 386	Non-biosolids WWT/Sludge Appl Site	LL1 (Lundeen, L)	T35N, R25W, S35, NE Quarter
LA 387	Non-biosolids WWT/Sludge Appl Site	BSS-57 (Saint Sauver, B)	T31N, R20W, S03, NW Quarter
LA 388	Non-biosolids WWT/Sludge Appl Site	BSS-17 (Saint Sauver, B)	T32N, R20W, S10, SW Quarter
LA 389	Non-biosolids WWT/Sludge Appl Site	BSS-2 (Saint Sauver, B)	T32N, R20W, S09, NE Quarter
LA 390	Non-biosolids WWT/Sludge Appl Site	BSS-18 (Saint Sauver, B)	T32N, R20W, S10, SW Quarter
LA 391	Non-biosolids WWT/Sludge Appl Site	BSS-3A (Saint Sauver, B)	T32N, R20W, S08, NW Quarter
LA 392	Non-biosolids WWT/Sludge Appl Site	BSS-3B (Saint Sauver, B)	T32N, R20W, S08, SE Quarter
LA 392	Non-biosolids WWT/Sludge	BSS-3B (Saint Sauver, B)	T32N, R20W, S08, NE Quarter

	Appl Site		
LA 393	Non-biosolids WWT/Sludge Appl Site	BSS-3C (Saint Sauver, B)	T32N, R20W, S08, NE Quarter
LA 394	Non-biosolids WWT/Sludge Appl Site	KD32 (Guthrie, N)	T31N, R21W, S35, NW Quarter
LA 395	Non-biosolids WWT/Sludge Appl Site	KD31 (Hugo)	T31N, R21W, S26, SE Quarter
LA 396	Non-biosolids WWT/Sludge Appl Site	JK30 (Kowalik, J)	T35N, R25W, S35, SE Quarter
LA 397	Non-biosolids WWT/Sludge Appl Site	HM 1 - Myers, H	T30N, R21W, S27, NE Quarter
LA 398	Non-biosolids WWT/Sludge Appl Site	PR4 - Anderson, S	T36N, R24W, S28, SW Quarter
LA 399	Non-biosolids WWT/Sludge Appl Site	PR5 - Wolff, S	T36N, R24W, S29, NE Quarter
LA 400	Non-biosolids WWT/Sludge Appl Site	CH53 - Holcomb, C	T35N, R20W, S31, NE Quarter
LA 401	Non-biosolids WWT/Sludge Appl Site	KD2 - Penders, S	T30N, R21W, S16, SE Quarter
LA 402	Non-biosolids WWT/Sludge Appl Site	KD33 - Dostal, R	T31N, R21W, S35, SW Quarter
LA 403	Non-biosolids WWT/Sludge Appl Site	KD34 - Dostal, R	T31N, R21W, S36, SW Quarter
LA 404	Non-biosolids WWT/Sludge Appl Site	AS95 - Wicht, R	T34N, R24W, S03, SW Quarter
LA 405	Non-biosolids WWT/Sludge Appl Site	IS13 - Stolp, I	T35N, R20W, S15, SE Quarter
LA 406	Non-biosolids WWT/Sludge Appl Site	AS4 - Stifter, A	T35N, R24W, S35, NW Quarter
LA 407	Non-biosolids WWT/Sludge Appl Site	ES5 - Peterson, R	T31N, R20W, S16, SE Quarter
LA 408	Non-biosolids WWT/Sludge Appl Site	ES6 - Stifter, E	T31N, R20W, S22, SW Quarter
LA 409	Non-biosolids WWT/Sludge Appl Site	ES7 - Stifter, E	T31N, R20W, S27, NW Quarter
LA 410	Non-biosolids WWT/Sludge Appl Site	RK97 (Schlichting, A)	T35N, R25W, S23, SW Quarter
LA 411	Non-biosolids WWT/Sludge Appl Site	RK97 (Kostecka, A)	T35N, R25W, S28, SE Quarter
LA 412	Non-biosolids WWT/Sludge Appl Site	RK97 (Anderson, T)	T35N, R25W, S27, NW Quarter
LA 413	Non-biosolids WWT/Sludge Appl Site	AS3 - Stifter, A	T35N, R24W, S35, NW Quarter
LA 414	Non-biosolids WWT/Sludge Appl Site	TT1 (Thommes, T)	T31N, R21W, S24, SW Quarter
LA 415	Non-biosolids WWT/Sludge Appl Site	DT1 (Thiel, D)	T35N, R20W, S24, NE Quarter

LA 416	Non-biosolids WWT/Sludge Appl Site	DT2 (Ness, M)	T35N, R20W, S24, NW Quarter
LA 417	Non-biosolids WWT/Sludge Appl Site	KD1 (Dewolf, K)	T113N, R17W, S01, NW Quarter
LA 418	Non-biosolids WWT/Sludge Appl Site	CH1 (Goodsen, J)	T34N, R21W, S02, SW Quarter
LA 419	Non-biosolids WWT/Sludge Appl Site	CH10 (Rabel, G)	T34N, R21W, S01, SE Quarter
LA 420	Non-biosolids WWT/Sludge Appl Site	CH92 (Rabel, G)	T34N, R21W, S01, SE Quarter
LA 421	Non-biosolids WWT/Sludge Appl Site	CH12 (Swanson, D)	T34N, R21W, S02, SW Quarter
LA 422	Non-biosolids WWT/Sludge Appl Site	CH13 (Swanson, D)	T34N, R21W, S02, SW Quarter
LA 423	Non-biosolids WWT/Sludge Appl Site	MR5 (Raleigh, M)	T30N, R20W, S15, NW Quarter
LA 424	Non-biosolids WWT/Sludge Appl Site	MR5A (Raleigh, M)	T30N, R20W, S15, NW Quarter
LA 425	Non-biosolids WWT/Sludge Appl Site	DT3 (Thiel, D)	T35N, R20W, S24, NE Quarter
LA 426	Non-biosolids WWT/Sludge Appl Site	DT4 (Ness, M)	T35N, R20W, S24, NW Quarter
LA 427	Non-biosolids WWT/Sludge Appl Site	KD20 (Wlaschin, R)	T31N, R21W, S34, SW Quarter
LA 428	Non-biosolids WWT/Sludge Appl Site	CH2 (Holcomb, C)	T35N, R21W, S36, NE Quarter
LA 429	Non-biosolids WWT/Sludge Appl Site	CH3 (Holcomb, C)	T35N, R21W, S36, NW Quarter
LA 430	Non-biosolids WWT/Sludge Appl Site	PR6 (Kollman, R)	T37N, R25W, S22, SE Quarter
LA 431	Non-biosolids WWT/Sludge Appl Site	PR7 (Leinum, M)	T37N, R25W, S22, SW Quarter
LA 432	Non-biosolids WWT/Sludge Appl Site	PR8 (Kollman, R)	T37N, R25W, S23, SW Quarter
LA 433	Non-biosolids WWT/Sludge Appl Site	PB15 (Ramsden, B)	T30N, R21W, S24, SE Quarter
LA 434	Non-biosolids WWT/Sludge Appl Site	JF6 (Flodquist, J)	T35N, R20W, S22, SW Quarter
LA 435	Non-biosolids WWT/Sludge Appl Site	TP2 (Peltier, T)	T35N, R19W, S32, NW Quarter
LA 436	Non-biosolids WWT/Sludge Appl Site	DG1 (Gehl, D)	T30N, R20W, S04, SE Quarter
LA 437	Non-biosolids WWT/Sludge Appl Site	MR3 (Raleigh, M)	T30N, R20W, S16, NE Quarter
LA 438	Non-biosolids WWT/Sludge Appl Site	MJ1 (Jensen, M)	T37N, R23W, S15, NE Quarter
LA 439	Non-biosolids WWT/Sludge	JG2 (Swenson, P)	T36N, R25W, S07, NW Quarter

	Appl Site		
LA 440	Non-biosolids WWT/Sludge Appl Site	TS10 (Smuder, T)	T36N, R21W, S08, NW Quarter
LA 441	Non-biosolids WWT/Sludge Appl Site	JT1 (Tubbs, J)	T30N, R21W, S22, NW Quarter
LA 442	Non-biosolids WWT/Sludge Appl Site	JT2 (Tubbs, J)	T30N, R21W, S16, SW Quarter
LA 443	Non-biosolids WWT/Sludge Appl Site	JT3 (Tubbs, J)	T30N, R21W, S16, SW Quarter
LA 444	Non-biosolids WWT/Sludge Appl Site	JT4 (Tubbs, J)	T30N, R21W, S22, NW Quarter
LA 445	Non-biosolids WWT/Sludge Appl Site	LL20 (Lundeen, L)	T35N, R24W, S30, SW Quarter
LA 446	Non-biosolids WWT/Sludge Appl Site	LL21 (Lundeen, L)	T35N, R25W, S25, SE Quarter
LA 447	Non-biosolids WWT/Sludge Appl Site	PB7 - Meinecke, M	T30N, R20W, S08, SW Quarter
LA 448	Non-biosolids WWT/Sludge Appl Site	RS60 - Jones, D	T29N, R20W, S20, NW Quarter
LA 449	Non-biosolids WWT/Sludge Appl Site	RS61 - Fuller, A	T29N, R20W, S29, NE Quarter
LA 450	Non-biosolids WWT/Sludge Appl Site	RS62 - Shiltgen, R	T28N, R20W, S18, SW Quarter
LA 451	Non-biosolids WWT/Sludge Appl Site	PR9 - Sweningson, R&L	T36N, R25W, S25, NE Quarter
LA 452	Non-biosolids WWT/Sludge Appl Site	PR9A - Sweningson, R&L	T36N, R25W, S25, SE Quarter
LA 453	Non-biosolids WWT/Sludge Appl Site	PR10 - Sweningson, R&L	T36N, R25W, S25, NE Quarter
LA 453	Non-biosolids WWT/Sludge Appl Site	PR10 - Sweningson, R&L	T36N, R25W, S25, SE Quarter
LA 454	Non-biosolids WWT/Sludge Appl Site	BB1 - Bradow, B	T36N, R25W, S01, SE Quarter
LA 455	Non-biosolids WWT/Sludge Appl Site	BB2 - Bradow, B	T36N, R25W, S01, SW Quarter
LA 456	Non-biosolids WWT/Sludge Appl Site	BB3 - Bradow, B	T36N, R25W, S01, SW Quarter
LA 457	Non-biosolids WWT/Sludge Appl Site	BB4 - Bradow, B	T36N, R25W, S01, SW Quarter
LA 458	Non-biosolids WWT/Sludge Appl Site	KD50 - Ruiz, D	T31N, R20W, S29, SW Quarter
LA 459	Non-biosolids WWT/Sludge Appl Site	KD53- Dornfeld, R	T31N, R20W, S31, SW Quarter
LA 460	Non-biosolids WWT/Sludge Appl Site	KD22 - Marshall, D	T30N, R21W, S16, NE Quarter
LA 461	Non-biosolids WWT/Sludge Appl Site	KB1 - Peterson, B	T35N, R25W, S26, NW Quarter

LA 462	Non-biosolids WWT/Sludge Appl Site	KM1 - Palme, S	T35N, R22W, S25, NW Quarter
LA 463	Non-biosolids WWT/Sludge Appl Site	KM2 - Palme, S	T35N, R21W, S11, SW Quarter
LA 464	Non-biosolids WWT/Sludge Appl Site	CM3 - Beckman, A	T121N, R23W, S18, SE Quarter
LA 465	Non-biosolids WWT/Sludge Appl Site	LM1 - Morrell, L	T35N, R24W, S21, SW Quarter
LA 466	Non-biosolids WWT/Sludge Appl Site	KD61 - Welsh, S	T30N, R20W, S05, SE Quarter
LA 467	Non-biosolids WWT/Sludge Appl Site	KD60 - Welsh, S	T30N, R20W, S05, SE Quarter
LA 468	Non-biosolids WWT/Sludge Appl Site	BZ1 (Finch, D)	T28N, R20W, S20, SE Quarter
LA 469	Non-biosolids WWT/Sludge Appl Site	MT1	T35N, R22W, S34, NW Quarter of the NE Quarter
LA 470	Non-biosolids WWT/Sludge Appl Site	JGU1	T34N, R22W, S23, NE Quarter of the NE Quarter
LA 471	Non-biosolids WWT/Sludge Appl Site	JGU2	T34N, R22W, S14, SE Quarter of the SE Quarter
LA 472	Non-biosolids WWT/Sludge Appl Site	AT1	T35N, R22W, S28, NW Quarter
LA 473	Non-biosolids WWT/Sludge Appl Site	RS1	T36N, R25W, S14, SE Quarter of the NW Quarter
LA 474	Non-biosolids WWT/Sludge Appl Site	BM1	T36N, R25W, S14, NE Quarter of the SW Quarter
LA 475	Non-biosolids WWT/Sludge Appl Site	AT8	T35N, R22W, S31, NE Quarter of the NW Quarter
LA 476	Non-biosolids WWT/Sludge Appl Site	BZ1	T28N, R20W, S20, SE Quarter
LA 477	Non-biosolids WWT/Sludge Appl Site	GO3	T32N, R20W, S06, SE Quarter
LA 478	Non-biosolids WWT/Sludge Appl Site	GO5	T32N, R20W, S04, SW Quarter
LA 479	Non-biosolids WWT/Sludge Appl Site	GR1	T31N, R20W, S22, NW Quarter
LA 480	Non-biosolids WWT/Sludge Appl Site	GR2	T31N, R20W, S21, NE Quarter
LA 481	Non-biosolids WWT/Sludge Appl Site	GR3	T31N, R20W, S21, SE Quarter
LA 482	Non-biosolids WWT/Sludge Appl Site	GO1	T32N, R20W, S05, SW Quarter
LA 483	Non-biosolids WWT/Sludge Appl Site	LR3	T31N, R20W, S03, SW Quarter
LA 484	Non-biosolids WWT/Sludge Appl Site	LR4	T31N, R20W, S03, SW Quarter
LA 485	Non-biosolids WWT/Sludge	LR1	T31N, R20W, S03, SW Quarter

	Appl Site		
LA 486	Non-biosolids WWT/Sludge Appl Site	LR2	T31N, R20W, S03, SW Quarter
LA 487	Non-biosolids WWT/Sludge Appl Site	BK2	T34N, R22W, S16, SE Quarter
WS 301	Solids to Land Treatment/Application	Sulfide Oxidation Pretreatment Solids	T28N, R22W, S34, NE Quarter of the NE Quarter

5. Permit requirements

MN0068411	Twin City Tanning LLP	
		Special Requirements
	5.1.1	**Missing Industrial By-Products Site Notification Forms**. [Minn. R. 7001]
	5.1.2	Appendix B lists industrial by-product land application sites reportedly used since 2013 for which the MPCA does not have a completed Industrial By-Products Site Notification Form. For any land application site listed in Appendix B that is used during the effective period of this permit, the Permittee must submit a site notification form according to the notification procedures in the Land Application of Industrial By-Products chapter of this permit. Alternatively, a request may be made to inactivate any or all sites listed in Appendix B. [Minn. R. 7001]
		Per- and Polyfluoroalkyl Substances (PFAS)
	5.2.3	**PFAS Source Identification and Reduction**. [Minn. R. 7001]
	5.2.4	The Permittee shall complete an annual PFAS Source Identification and Reduction Evaluation by March 31 of each year for the previous year. The results of the evaluation shall be kept on site and available to the MPCA upon request. The evaluation shall include: A. A detailed description of the most likely/probable source of each PFAS compound found at each distinctly separate discharge station; B. Identify discharge station(s) and PFAS compounds where monitoring results are above a Minnesota Department of Health (MDH) Health Based Value (HBV). For the identified station(s) and PFAS compounds, describe in detail the methods and technologies that will be used to eliminate or mitigate the discharge to groundwater (unsaturated zone) and by when those technologies will be implemented; C. Identify discharge station(s) where the receiving water has PFAS site specific criteria, a PFAS water quality standard, or PFAS fish consumption advisory. For the identified station(s), describe in detail the methods and technologies that will be used to eliminate or mitigate the discharge of PFAS to surface water and by when those technologies will be implemented; D. Determination as to whether additional upstream sampling locations and/or frequencies are needed to definitively locate the source(s) of PFAS and a discussion of when these activities will occur; E. What PFAS source reduction and/or elimination efforts the Permittee has taken related to, but not limited to facility production, facility operation and maintenance, and raw materials, including source water(s) in the prior calendar year, and corrective actions planned for the future. If known PFAS containing products are currently being used, discuss if an alternative is available and the feasibility of implementing the alternative; and F. Discussion if PFAS detections lead to conversation with other entities over the prior calendar year and conversations planned for the future. If so, who was contacted, when, and what topics were addressed. [Minn. R. 7001]
	5.2.5	The Permittee shall complete and submit a PFAS Source Identification and Reduction Report by 180 days prior to permit expiration. The report will include a compilation of all annual PFAS Source Identification and Reduction Evaluations over the life of the permit, summaries, recommendations, and discussion of corrective actions planned for the future. The Permittee shall submit a PFAS Source Identification and Reduction Report: Due by 180 days prior to permit expiration. [Minn. R. 7001]
	5.2.6	**Analytical Requirements**. [Minn. R. 7001]
	5.2.7	The Permittee shall analyze industrial by-product samples for per- and polyfluoroalkyl substances (PFAS) in accordance with the following: A. The sample must be a representative sample of the industrial by-product to be land applied and must be analyzed with EPA Method 1633A, or the most current update to that method. Review the date of this publication to ensure the sampling and analysis methods are the most recent 1633 method. Check with analytical laboratories to confirm required sample volumes, collection, and preservation techniques.

		B. Until Method 1633A is promulgated by the EPA, the MPCA acknowledges that several laboratories are currently certified for EPA Method 1633, but not the current version, EPA Method 1633A. At this time, the MPCA will accept results for EPA Method 1633 while the chosen accredited laboratory is working towards their certification for EPA Method 1633A. The Permittee must sample and analyze PFAS compounds using methodology capable of detecting PFAS to the minimum reporting limits. C. Ensure the laboratory reports all results to a reporting limit (RL) of 20 parts per billion (ppb). Laboratories should not report results to the method detection limit (MDL), and all results should be reported on a dry weight basis. D. Limitations of EPA Method 1633A exist with industrial by-product samples containing less than 5% total solids. Industrial by-products with less than 5% total solids may lead to reporting limits that are above 20 ppb. The Permittee should reach out to the Project Manager at the laboratory if industrial by-product samples are typically below 5% total solids to ensure labs can take steps to achieve an RL of 20 ppb or less for PFOA and PFOS. If the laboratory cannot meet the 20-ppb RL for PFOA and PFOS, please contact the MPCA at: ibp.info.request.mpca@state.mn.us . Contracted laboratories may refer to the Guidance for per- and polyfluoroalky substances: Analytical or contact MPCA staff via email at: qa.question.mpca@state.mn.us with any analytical questions. E. Samples shall be analyzed for all the constituents (i.e., target analytes) that can be measured by EPA Method 1633A (currently 40 constituents). For additional information please refer to the Biosolids PFAS Sampling, Analysis and Reporting Guidance, located at this website: https://www.pca.state.mn.us/sites/default/files/wq-wwprm2-113c.pdf. [Minn. R. 7001]
	5.2.8	**Reporting Requirements**. [Minn. R. 7001]
	5.2.9	The Permittee shall report PFAS monitoring results in the units specified by this permit in the Industrial By-Product Annual Report. See the requirements for industrial by-product waste stream stations in the Limits and Monitoring section of this permit. [Minn. R. 7001]
	5.2.10	**End User Notification**. [Minn. R. 7001]
	5.2.11	The Permittee must let the end user know that PFAS sampling was conducted and results are available upon request as part of the end user notification requirements in the Land Application of Industrial By-Products chapter of this permit. A copy of the end user notification must be included in the Industrial By-Product Annual Report. [Minn. R. 7001]
		Industrial Wastewater General Requirements
	5.3.12	**Prohibited Discharges. [Minn. R. 7001]**
	5.3.13	This permit does not authorize the discharge of 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. [Minn. R. 7001.1090, subp. 1(A)]
	5.3.14	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. [Minn. R. 7001.1090, subp. 1(A)]
	5.3.15	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. [Minn. R. 7049.140, subp. 2]
	5.3.16	**Toxic Substance Reporting. [Minn. R. 7001]**
	5.3.17	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 Minn. R. 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, 1 mg/L; D. For any other toxic pollutant listed in Minn. R. 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. [Minn. R. 7001.1090, subp. 2]
	5.3.18	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 Minn. R. 7001.1050, subp. 2 (J). [Minn. R. 7001.1050, subp. 2(J)]
	5.3.19	**Mobile and Rail Equipment Service Areas. [Minn. R. 7001]**
	5.3.20	Locomotive traction sand, degreasing wastes, motor oil, oil filters, oil sorbent pads and booms, transmission fluids, power steering fluids, brake fluids, coolant/antifreeze, radiator flush wastewater and spent solvents shall be collected and disposed of in accordance with applicable solids and hazardous waste management rules. These materials shall not be discharged to surface or groundwaters of the state. [Minn. R. 7001.0150, subp. 2]
	5.3.21	The steam-cleaning of mobile equipment and rail equipment, except for limited outdoor cleaning of large drills and shovels, shall be conducted in wash bays that drain to wastewater treatment systems that include the removal of suspended solids and flammable liquids. The only washing of mobile equipment done in outside areas shall be to remove mud and dirt that has accumulated during outside work. [Minn. R. 7001.0150, subp. 2]
	5.3.22	Mobile and rail equipment washing shall not use solvent-based cleaners such as those available for brake cleaning and degreasing unless the cleaning fluids are completely contained and not allowed to flow to surface or groundwaters of the state. Soaps and detergents used in washing shall be biodegradable. [Minn. R. 7001.0150, subp. 2]
	5.3.23	Mobile and rail equipment maintenance and repairs shall not be conducted in wash bays. [Minn. R. 7001.0150, subp. 2]
	5.3.24	Hazardous materials shall not be stored or handled in wash bays. [Minn. R. 7001.0150, subp. 2]
	5.3.25	Wastewater containment systems, including pipes, shall be inspected regularly. Leaks that are detected shall be repaired immediately. [Minn. R. 7001.0150, subp. 2]
	5.3.26	If the Permittee discovers that recoverable amounts of petroleum products have entered wastewater containment systems, they shall be recovered immediately and reported to the MPCA. [Minn. R. 7001.0150, subp. 2]
	5.3.27	Spill cleanup procedures shall be posted in mobile and rail equipment maintenance and repair areas. [Minn. R. 7001.0150, subp. 2]
	5.3.28	**Polychlorinated Biphenyls (PCBs). [Minn. R. 7001]**
	5.3.29	PCBs, including but not limited to those used in electrical transformers and capacitors, shall not be discharged or released to the environment. [Minn. R. 7001.0150, subp. 2]
	5.3.30	**Piping. [Minn. R. 7001]**
	5.3.31	The Permittee shall implement the necessary preventative measure to minimize the potential for releases of wastewater from pipelines. Any such releases shall be contained and shall be reported as described in the release section of this permit. [Minn. R. 7001]
	5.3.32	The Permittee shall visually inspect the routes of pipelines that transport wastewater as needed to detect any pipeline spills or leaks. Pipeline pressure, flow rate, density, and pipe and joint thickness shall be measure as needed to prevent and detect potential leaks from pipelines. Records of these inspections and measurements shall be made available upon request. [Minn. R. 7001]
		Land Application of Industrial By-Products
	5.4.33	**Authorization. [Minn. R. 7001]**
	5.4.34	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. [Minn. R. 7001]
	5.4.35	**General Requirements. [Minn. R. 7001]**
	5.4.36	The Permittee shall characterize the industrial by-product in the permit application to show the following eligibility requirements are met:

		A. The industrial by-product cannot be a hazardous waste. B. The Permittee shall meet the concentrations below prior to the first land application of industrial by-product and shall evaluate industrial by-product if there are changes to its industrial process and/or chemical additives. Before making a concentration determination, Permittees cannot dilute industrial by-products or mix with other materials. Concentration limits for industrial by-products on a dry weight basis: Total Arsenic: 41 mg/kg Total Cadmium: 39 mg/kg Total Copper: 1500 mg/kg Total Lead: 300 mg/kg Total Mercury: 5 mg/kg Total Molybdenum: 75 mg/kg Total Nickel: 420 mg/kg Total Selenium: 100 mg/kg Total Zinc: 2800 mg/kg Total Dioxin equivalents: 10 parts per trillion Total Polychlorinated biphenyls: 6 mg/kg. [Minn. R. 7001]
	5.4.37	**Sampling, Analysis and Field Equipment Calibration Plan. [Minn. R. 7001]**
	5.4.38	The Permittee shall submit a Sampling, Analysis and Field Equipment Calibration Plan to address storage, management, and land application schedules by 60 days after permit issuance. The MPCA requires all permitted facilities to submit this plan. The Permittee may submit an updated version of a plan submitted as part of a previous permit term. The Permittee shall submit a Sampling, Analysis and Field Equipment Calibration Plan: Due by 60 days after permit issuance. [Minn. R. 7001]
	5.4.39	The Sampling, Analysis and Field Equipment Calibration Plan must include, but is not limited to the following: A. A description of sample collection methods to ensure representative samples of the industrial by-product land applied, including sampling location identification and a description of a sampling schedule; B. A list of all analyzed parameters, the analysis frequency, maximum holding times, and preservation methods; C. The laboratory methods used for analysis and reporting limits; D. A field equipment calibration schedule and detailed procedures to determine actual application rates of industrial by-product with an accuracy of plus or minus ten percent; E. An example of record keeping forms for sampling, analysis, and equipment calibration; F. The position of the person(s) responsible for sampling and calibration of field equipment; and G. A description of measures and practices to provide reasonable assurance that land application, staging, and/or storage of industrial by-product will not cause nuisance conditions. [Minn. R. 7001]
	5.4.40	**Sampling Requirements. [Minn. R. 7001]**
	5.4.41	The Permittee shall measure flows to ensure accuracy within plus or minus ten percent of the true flow values. Flow meters shall be calibrated in accordance with the Total Facility Requirements chapter of this permit. The Permittee shall maintain written records of all calibrations and maintenance. [Minn. R. 7001]
	5.4.42	**Limits and Monitoring Requirements. [Minn. R. 7001]**
	5.4.43	Parameters. The Permittee shall analyze industrial by-product samples for the parameters listed for industrial by-product waste stream stations in the Limits and Monitoring section of this permit. The Permittee shall analyze each industrial by-product individually if it produces more than one type of industrial by-product, unless approval for mixing the industrial by-product for storage or land application is granted by the MPCA. [Minn. R. 7001]
	5.4.44	Analysis Frequency. The Permittee shall refer to the Limits and Monitoring section of this permit to determine the minimum frequency of parameter analysis. The Permittee shall determine the minimum analytical frequency for each type of industrial by-product land applied. In some cases, the minimum frequencies of analysis will not be adequate to obtain representative samples and additional analysis may be required. [Minn. R. 7001]
	5.4.45	**Site Suitability Criteria. [Minn. R. 7001]**

	5.4.46	The MPCA requires an industrial by-product land application site to meet all the criteria in this part. [Minn. R. 7001]
	5.4.47	The Permittee shall determine the suitability of the site for industrial by-product application, including a determination that the soils at the site meet the soil sample limitations identified for industrial by-product land application stations in the Limits and Monitoring section of this permit and the Site Suitability Criteria of this part. The Permittee shall submit this information to the MPCA prior to land application and according to the procedures in the Notification to MPCA part of this chapter. [Minn. R. 7001]
	5.4.48	Slope Restrictions. All industrial by-product land application sites shall meet the slope restrictions in Table 1 of Appendix A. [Minn. R. 7001]
	5.4.49	Separation Distances. All industrial by-product land application sites shall meet the minimum separation distances in Table 2 of Appendix A. [Minn. R. 7001]
	5.4.50	**Soil Sampling Requirements and Limits. [Minn. R. 7001]**
	5.4.51	The Permittee shall submit an Industrial By-Products Site Notification Form as outlined in the Notification Procedures part of this chapter, including soils and waste analysis collected within six (6) months of form submission. After submittal, the Permittee shall collect and analyze soil samples within the three-year period prior to industrial by-product application for the parameters listed for industrial by-product land application stations in the Limits and Monitoring section of this permit. The Permittee shall receive sample results and determine soil suitability before using a site for land application. Sample results shall meet limits before the Permittee uses a site for land application. [Minn. R. 7001]
	5.4.52	The Permittee shall collect a composite soil 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. Sites greater than 40 acres in size require a minimum of one composite sample per 40 acres of area. If using an alternative soil sampling method, the Permittee shall describe how the alternative protocol meets the minimum sampling frequency requirements for characterizing soils through representative sampling in the Sampling, Analysis and Field Equipment Calibration Plan. In no case shall the proposed sampling frequency be less than the requirements of this permit. [Minn. R. 7001]
	5.4.53	**Soil Suitability Requirements. [Minn. R. 7001]**
	5.4.54	The site used for land application of industrial by-product shall have a growing crop, which is harvested and removed during the cropping year that the industrial by-product is land applied. 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 contains pathogens, all the soil suitability criteria in A through C, below, shall be met: A. The soil texture at the zone of industrial by-product application shall 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 shall be at least 3 feet, unless the soil is classified as a highly permeable soil, in which case the minimum depth increases to 5 feet; and C. The depth to the seasonal high water table shall be at least 3 feet, unless the soil is classified as a highly permeable soil, in which case the minimum depth increases to 5 feet. [Minn. R. 7001]
	5.4.55	Tile Lines. On sites installed with tile drainage, the depth to tile lines is the depth to the seasonal high water table. The MPCA requires sites maintain a three-foot separation distance to saturated soils for tiled sites. The Permittee shall provide maps of the tiling system indicating their depth and placement in the field. Water tables classified as perched or episaturated by the Natural Resources Conservation Service are not considered to be the seasonal high water table. [Minn. R. 7001]
	5.4.56	The Permittee shall obtain information to determine soil suitability from the Web Soil Survey published by the Natural Resources Conservation Service or by characterization of the site by a state of Minnesota licensed soil scientist or another qualified person. [Minn. R. 7001]
	5.4.57	**Site Management, Limitations, and Restrictions. [Minn. R. 7001]**
	5.4.58	Annual Application Limits. Annual application rates of the industrial by-product shall not exceed a sodium application rate limitation of 170 lb/acre/year. [Minn. R. 7001]
	5.4.59	Hydraulic Loading Limits. The MPCA sets hydraulic loading limits to prevent ponding and runoff from land application sites. The limitations specified in this section shall not cause any exceedances of other application limits of this permit. Limits for daily surface application rates for industrial by-products

		include: 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, and clay; B. 15,000 gallons/acre/day for medium-textured surface soils with USDA textural classifications of loam, silt loam, silt, 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. [Minn. R. 7001]
	5.4.60	Winter Application. The Permittee shall meet the following requirements for frozen or snow-covered soils when incorporation or injection is not possible: A. The Permittee shall not exceed a maximum hydraulic loading rate of 15,000 gallons/acre/winter for liquid industrial by-product; B. Applications are restricted to areas with 0 to 2% slopes; and C. The Permittee shall maintain all separation distances identified in Table 2 of Appendix A. The MPCA assumes industrial by-product incorporation or injection cannot occur during the months of December, January, February, and March unless the Permittee observes specific field or climatic conditions and documents them appropriately in the daily hauling record in accordance with the Records part of this chapter. [Minn. R. 7001]
	5.4.61	The Permittee may be required to take additional measures to prevent runoff of the industrial by-product from the site during the spring thaw, such as the installation of silt fences and berms and planting of grass buffer strips. [Minn. R. 7001]
	5.4.62	Miscellaneous Management Practices/Restrictions. The Permittee shall meet the following requirements for land application of industrial by-products: A. The Permittee shall not allow runoff of the industrial by-product from the application site. This may require management tools such as the installation of silt fences and berms and planting of grass buffer strips; B. The Permittee shall not allow ponding of liquid industrial by-products after 6 hours of application; C. All of the industrial by-product land applied shall be uniformly distributed over the area of the site used during application; D. The application area shall be clearly identified with GPS mapping used in the application equipment, 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. Site boundaries identified by field roads, fences, and so forth do not require identification; E. The industrial by-product shall 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. The Permittee shall inject or immediately incorporate liquid industrial by-products when applied on soil with a surface horizon permeability rate of less than 0.2 inches/hour; and I. The Permittee shall not apply the industrial by-product by spraying from public roads or across road right-of-ways without prior written MPCA approval. [Minn. R. 7001]
	5.4.63	Multiple Permittees may use a land application site; however, both Permittee's annual report shall include application and additional source(s) of nitrogen. [Minn. R. 7001]
	5.4.64	Nuisance conditions. The Permittee shall perform land application, staging, and/or storage of industrial by-product 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. The Permittee shall consider all aspects of land application of the industrial by-product when providing reasonable assurance, including loading, unloading, transportation, storage, and land application of the industrial by-product, and shall specify this information in the Sampling, Analysis, and Field Equipment Calibration Plan. [Minn. R. 7001]
	5.4.65	**Additional Requirements - Industrial By-Product Supplying Nitrogen. [Minn. R. 7001]**
	5.4.66	**Total Available Nitrogen. [Minn. R. 7001]**
	5.4.67	The total quantity of nitrogen available for crop uptake for all industrial by-product during the cropping

		year is the sum of available organic nitrogen and ammonia nitrogen. [Minn. R. 7001]
	5.4.68	Available organic nitrogen. The Permittee shall use one of the following methods to determine the available organic nitrogen for industrial by-products: i. The total quantity of organic nitrogen present in the industrial by-product is considered 50% available during the cropping year it is applied and 25% the following cropping year (carryover nitrogen). ii. A mineralization study shall determine the quantity of organic nitrogen available in the industrial by-product during the cropping year it is applied and subsequent years (carryover). The mineralization study determines the rate and quantity of organic nitrogen mineralized during the applied cropping year it is applied and the rate and quantity of nitrogen mineralized during the second cropping year after application. The MPCA shall approve the mineralization study, including study protocol, prior to initiation of the study. [Minn. R. 7001]
	5.4.69	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. [Minn. R. 7001]
	5.4.70	**Maximum Allowable Nitrogen Application Rates. [Minn. R. 7001]**
	5.4.71	The Permittee shall not apply industrial by-products at rates that cause exceedances of the annual maximum allowable nitrogen application rate. Maximum allowable nitrogen application rates shall take into account all available nitrogen applied on the site, including fertilizers; industrial and municipal by-products such as manure, biosolids, compost, and septage; and other industrial by-products. [Minn. R. 7001]
	5.4.72	Total available nitrogen loading limit cannot exceed the maximum allowable nitrogen application rate for the cropping year. [Minn. R. 7001]
	5.4.73	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. The MPCA requires written approval for a proposed nitrogen application rate when information on recommended nitrogen application rates is not readily available or agreed upon. [Minn. R. 7001]
	5.4.74	Table 4 of Appendix A lists maximum allowable nitrogen application rates for selected crops that do not have University of Minnesota Extension Service recommendations. [Minn. R. 7001]
	5.4.75	**Application Management. [Minn. R. 7001]**
	5.4.76	The Permittee shall comply with the following requirements when no crop is grown on the application site during the time period between July 1 through August 31: A. Applications are limited to rates which supply no more than 50 pounds per acre of available nitrogen; and 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 carryover from earlier industrial by-product application. [Minn. R. 7001]
	5.4.77	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 4 of Appendix A. [Minn. R. 7001]
	5.4.78	**Additional Requirements - Industrial By-Product Containing Pathogens. [Minn. R. 7001]**
	5.4.79	Applicability. Permittees with industrial by-products containing pathogens shall meet additional separation distances and site restrictions (Table 3 of Appendix A). The MPCA assumes an industrial by-product contains pathogens when it contains waste streams known or likely to contain pathogens, including, but not limited to, wastes containing blood, animal feces, and raw meats. All requirements of this part shall be met for industrial by-products containing pathogens. [Minn. R. 7001]
	5.4.80	Site Restrictions. Permittees with industrial by-products containing pathogens shall meet the following restrictions on crop harvest and access restriction. If necessary, the Permittee shall post signs at the area to meet restrictions. The minimum duration between time of application of an industrial by-product containing pathogens and harvest, grazing, and public access to the site is 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 reduces 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. [Minn. R. 7001]
	5.4.81	**Notification Procedures. [Minn. R. 7001]**
	5.4.82	**Notification to MPCA. [Minn. R. 7001]**
	5.4.83	The Permittee shall submit a completed Industrial By-Products Site Notification Form at least 30 days prior to application of industrial by-product at a site used for land application of an industrial by-product for the first time. The Permittee shall collect the soil test results submitted with this form no more than six (6) months prior to submittal of the form. The Permittee shall repeat this notification 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 available electronically at https://www.pca.state.mn.us/business-with-us/land-application-of-industrial-by-products. [Minn. R. 7001]
	5.4.84	The Permittee shall provide the appropriate and respective certifications required by the Industrial By-Product Storage part of this chapter to the MPCA prior to the use of an area or structure for the storage of an industrial by-product. [Minn. R. 7001]
	5.4.85	**Local Notification. [Minn. R. 7001]**
	5.4.86	The Permittee shall provide written notification to local officials at least 30 days before initiating land application activities within a county, city, or township for the first time. The Permittee shall: 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 another appropriate official of the city in writing 30 days before the industrial by-product is land applied within the city limits. [Minn. R. 7001]
	5.4.87	The Permittee shall date the notifications and include a description with the following elements: A. Description of the industrial by-product to be land applied, including 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 application; B. Description of any staging and/or short-term storage of the industrial by-product conducted prior to land application; C. Description of the applicable slope and setback requirements followed during land application; and D. A response section 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. [Minn. R. 7001]
	5.4.88	The Permittee shall repeat the notification process 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. [Minn. R. 7001]
	5.4.89	**End User Notification. [Minn. R. 7001]**
	5.4.90	The end user shall receive, at a minimum, the information necessary to meet the requirements of this permit for each site used for land application of the industrial by-product. This includes information such

		as actual nutrient application rates, any restrictions on the by-product use, crop restrictions, and so forth. The application rates provided to the end user shall be the same nutrient loading rates submitted in the annual report. [Minn. R. 7001]
	5.4.91	The Permittee shall provide the end user with this information in writing as soon as possible and in no case more than 6 weeks after completion of application at the land application site. The Permittee shall maintain records demonstrating compliance with end user notification in accordance with the Records part of this chapter. [Minn. R. 7001]
	5.4.92	The Permittee shall inform end users that they should take appropriate credits for all plant nutrients supplied by industrial and municipal by-products, manures, septage, and fertilizers so that maximum allowable application rates are not exceeded. [Minn. R. 7001]
	5.4.93	**Operator Certification. [Minn. R. 7001]**
	5.4.94	A Type IV certified operator, or someone under the supervision of a Type IV certified operator, shall complete all land application activities. [Minn. R. 7001]
	5.4.95	The number of certified operators required for land application activities is subject to the requirements of Minn. R. 7048.0500. [Minn. R. 7001]
	5.4.96	**Records. [Minn. R. 7001]**
	5.4.97	Record Retention. The Permittee shall maintain the following records at the facility for as long as that site is considered active, and shall be available at the facility for review at any time by MPCA staff: A. Copy of the submitted Industrial By-Products 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, tile maps, 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 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; [Minn. R. 7001]
	5.4.98	Record Retention continued: J. Any approved plans or special approvals required by this permit; K. Copy of any Industrial By-Product Transfer to Manure Storage Application form submitted for storage of industrial by-product in a manure storage structure; and L. Any applicable records requirements pertaining to the storage of industrial by-product as specified by Industrial By-Products Storage part of this chapter. [Minn. R. 7001]
	5.4.99	The Permittee shall maintain the following information 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 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 frozen or snow-covered soils, 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.

		Records for industrial by-product transferred to manure storage structures do not need to include items C, E or F above; however, these do need to indicate on the Daily Hauling Record whether three feet of freeboard existed within the manure structure at the time of transfer. [Minn. R. 7001]
	5.4.100	**Industrial By-Product Storage. [Minn. R. 7001]**
	5.4.101	**General Requirements for Storage of All Industrial By-Products. [Minn. R. 7001]**
	5.4.102	Applicability. The Permittee may store or stage industrial by-product prior to land application only under the terms and conditions of this permit for the industrial by-product(s) covered by this permit. This part is divided into several subparts. This first subpart is applicable to all industrial by-product storage. The permit lists additional requirements for dewatered and liquid industrial by-product following this subpart. [Minn. R. 7001]
	5.4.103	The Permittee shall notify the appropriate local authorities prior to use of an area or structure for storage of an industrial by-product within a county, township, or city. 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. The 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. [Minn. R. 7001]
	5.4.104	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 shall cover or otherwise manage the waste to control wind dispersion; and C. The Permittee shall control and manage nuisance conditions resulting from the storage of industrial by-product. [Minn. R. 7001]
	5.4.105	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. ch. 7151 for storage of an industrial by-product in a tank or tank system. [Minn. R. 7001]
	5.4.106	**A. Requirements for the Storage of Industrial By-Product in an Aboveground Storage Tank System. [Minn. R. 7001]**
	5.4.107	If the Permittee stores industrial by-product in an aboveground storage tank system as defined in Minn. R. 7151.1200, subp. 2, the Permittee shall comply with the design and operating requirements of Minn. R. ch. 7151 as applicable to storage of other regulated substances as defined in Minn. R. 7151.1200, subp. 25. The exclusion for wastewater treatment equipment in Minn. R. 7151.1300, subp. 2(A), does not apply to such storage. [Minn. R. 7001]
	5.4.108	Certification Required. Prior to use of a tank for the storage of an industrial by-product under this section, owners and operators shall obtain written certification from an engineer licensed in Minnesota stating that the tank, based on their assessment of the applicable provisions of Minn. R. ch. 7151 is compliant with the Aboveground Storage Tank Rules. [Minn. R. 7001]
	5.4.109	The following standards apply to the short-term storage of industrial by-products in a vehicle, such as a tank truck, frac tank, railroad tank car, or similar designed and used to transport substances from one location to another: A. Storage under this section shall not exceed thirty (30) days. B. Short-term storage shall only occur at the facility or on the land application site where the industrial by-product will be applied. The quantity of industrial by-product stored at an application site shall not exceed the quantity of material that can be applied to that site.

		C. The Permittee shall maintain the separation distances in Table 5 of Appendix A for all areas and structures used for the storage of industrial by-products. D. The storage structure shall be structurally sound and leak proof. [Minn. R. 7001]
	5.4.110	**B. Additional Requirements for the Transfer of Industrial By-Products to Manure Storage Structures. [Minn. R. 7001]**
	5.4.111	Applicability. The MPCA regulates structures designed primarily for the storage of manure wherein industrial by-product and manure are co-mingled under the requirements of this part. [Minn. R. 7001]
	5.4.112	Maximum Amount Transferred to Each Structure. The Permittee may transfer a maximum of 50,000 gallons of industrial by-product, or up to 10% of the available volume of the structure, whichever is greater, 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 may occur as long as the Permittee removes the first quantity prior to receiving the second transfer. The Permittee shall record the available capacity of the structure at the time of transfer and the amount transferred in the Daily Hauling Record as required by the Records part of this chapter. [Minn. R. 7001]
	5.4.113	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. The Permittee shall not use biological treatment lagoons for the storage of industrial by-product; C. The manure storage structure shall maintain a minimum of three feet of freeboard at all times; and D. Industrial by-products shall 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. [Minn. R. 7001]
	5.4.114	Prior to the use of the manure storage structure, the Permittee shall: A. Complete an Industrial By-Product Transfer to Manure Storage Application form and submit it for signature approval to the appropriate feedlot officer in delegated counties or MPCA feedlot staff in nondelegated counties in the county in which the manure storage structure is located. A copy of the form is available electronically at https://www.pca.state.mn.us/business-with-us/land-application-of-industrial-by-products; B. Submit a copy of the completed, signed form to the township or city where the manure storage structure is located; and C. Submit a copy of the completed, signed form to the MPCA. [Minn. R. 7001]
	5.4.115	Feedlot Facility Minimum Standards. In order for a facility to obtain approval for a manure storage structure for industrial by-product use, the feedlot receiving the industrial by-product shall be in compliance with MPCA feedlot manure management requirements and have no unresolved compliance issues. [Minn. R. 7020]
	5.4.116	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 shall 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; and 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 ii. An account of the volume transferred to the manure storage facility. [Minn. R. 7020]
	5.4.117	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. Minn. R. ch. 7020 requires a Manure Management Plan for operations with more than 300 animal units; for operations with less than 300 animal units, a Manure Management Plan is not

		required, but the manure shall be land applied in accordance with the requirements of Minn. R. ch. 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 Permittee shall submit the total quantity of by-product transferred and a copy of analysis results to the MPCA in accordance with the Annual Report part of this chapter; G. The Permittee shall maintain daily hauling records pertaining to the transfer of the industrial by-product to/from a manure storage structure, as required by the Records part of this chapter; and H. The Permittee shall manage the resulting mixture of materials land applied as manure and the mixture is subject to the requirements for manure management. [Minn. R. 7020]
	5.4.118	**Dewatered Industrial By-Product Storage Requirements. [Minn. R. 7001]**
	5.4.119	Permittees that spread dewatered industrial by-products concurrently with the unloading of bulk material on the land application site and do not stockpile greater than 24 hours are not subject to the additional requirements for storage under this part. [Minn. R. 7001]
	5.4.120	Permittees that received approval for storage of a dewatered industrial by-product under a previous permit action or other written approval shall meet the requirements of the applicable subparts of this part. [Minn. R. 7001]
	5.4.121	Separation Distances. The Permittee shall maintain the separation distances in Table 5 of Appendix A for all areas and structures used for the storage of industrial by-products. [Minn. R. 7001]
	5.4.122	**A. Short-Term Storage of Dewatered Industrial By-Product. [Minn. R. 7001]**
	5.4.123	Short-term storage requirements under this subpart are applicable to dewatered industrial by-product as defined by this permit. [Minn. R. 7001]
	5.4.124	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 stored at an application site shall not exceed the quantity of material that can be applied to that site; and C. Short-term storage shall not take place on land with a slope greater than two percent (2%) unless the Permittee takes measures to control water runoff. [Minn. R. 7001]
	5.4.125	**B. Long-Term Storage of Dewatered Industrial By-Product. [Minn. R. 7001]**
	5.4.126	Long-term storage requirements under this subpart are applicable to dewatered industrial by-product as defined by this permit. [Minn. R. 7001]
	5.4.127	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 occur on land with greater than a two percent (2%) slope unless the Permittee takes measures 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 there is construction of an impervious pad with a drainage collection system; E. Long-term storage shall not take place on the same area for two or more consecutive years unless there is construction of an impervious pad with a drainage collection system; and 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 shall 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. [Minn. R. 7001]

	5.4.128	Locational Prohibitions. All of the locational standards in Table 5 of Appendix A apply to all areas and structures used for the storage of industrial by-products. [Minn. R. 7001]
	5.4.129	Certification Required. Prior to use of a constructed pad or other structure for the long-term storage of an industrial by-product, the Permittee shall 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-Product subpart of this chapter, is suitable for the long-term storage of the industrial by-product. [Minn. R. 7001]
	5.4.130	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-Product subpart of this chapter, is suitable for the long-term storage of the industrial by-product. [Minn. R. 7001]
	5.4.131	**C. Permanent Storage of Dewatered Industrial By-Product. [Minn. R. 7001]**
	5.4.132	Permanent storage requirements are applicable to dewatered industrial by-products that are stored for a period of more than seven months and are not stored in a tank or tank system. [Minn. R. 7001]
	5.4.133	The following standards apply to the permanent storage of industrial by-products: A. Any area used for permanent storage of dewatered industrial by-products shall be paved with asphalt, concrete, or other material designed to restrict seepage to less than 500 gallons per acre per day, and shall be sufficient to bear the weight of unloading and loading trucks and equipment without cracking. The pad shall be sloped and curbed to collect all runoff water. Runoff water must be collected and managed in a manner approved by the MPCA; B. The Permittee shall not store the industrial by-product at the permanent storage location for more than three years without processing or utilizing the product; and C. 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 shall 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. [Minn. R. 7001]
	5.4.134	Certification Required. Prior to use of a constructed area or structure for the permanent storage of an industrial by-product under this subpart, the Permittee shall 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 subpart are suitable for the permanent storage of the industrial by-product. [Minn. R. 7001]
	5.4.135	**Annual Report. [Minn. R. 7001]**
	5.4.136	The Permittee shall submit an Industrial By-Product Annual Report by December 31 of each year following permit issuance. The Permittee shall report on the MPCA form available electronically at https://www.pca.state.mn.us/business-with-us/land-application-of-industrial-by-products or another MPCA-approved form. The Permittee shall submit an industrial by-product land application annual report: Due by December 31 of each year following permit issuance. [Minn. R. 7001]
	5.4.137	The Industrial By-Product Annual Report shall include the following information: A. Total quantity of each industrial by-product land applied during the cropping year (if none land applied, indicate 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 part of this chapter, if applicable. [Minn. R. 7001]
	5.4.138	The Permittee shall report monitoring results for the completed reporting period in the units specified by this permit on the Industrial By-Product Annual Report form, as provided electronically at https://www.pca.state.mn.us/business-with-us/land-application-of-industrial-by-products. [Minn. R. 7001]
	5.4.139	**Definitions. [Minn. R. 7001]**
	5.4.140	"Agency" means the Minnesota Pollution Control Agency (MPCA). [Minn. R. 7001]
	5.4.141	"Agronomic Rate" means the industrial by-product application rate (dry weight basis) designed to: A. Provide the amount of nitrogen which can be utilized by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land; and B. Minimize the amount of nitrogen in the industrial by-product that passes below the root zone of the crop or vegetation grown on the land to the groundwater. [Minn. R. 7001]
	5.4.142	"Available Nitrogen" means the nitrogen present in the industrial by-product which is available for the plant to use during the cropping year. [Minn. R. 7001]
	5.4.143	"By-Product" has the same meaning as solid waste given in Minn. R. 7035.0300. [Minn. R. 7001]
	5.4.144	"Carbon to Nitrogen Ratio" means the calculated ratio of total elemental carbon to total elemental nitrogen reported on a dry weight basis. [Minn. R. 7001]
	5.4.145	"Class 2 Surface Water," as defined in Minn. R. 7050.0200, means all waters of the state that are or may be used for fishing, fish culture, bathing, or any other recreational purpose, and for which quality control is or may be necessary to protect aquatic or terrestrial life, or the public health, safety, or welfare. [Minn. R. 7001]
	5.4.146	"Compatible" means the ability of two or more substances or materials in a tank system to maintain their respective physical and chemical properties upon contact with one another. [Minn. R. 7001]
	5.4.147	"Cover Crop" means vegetation which is planted specifically to prevent soil erosion and to take up nutrients that may otherwise be lost before the next cropping year. This typically includes crops such as rye, oats, or other types of fast-growing vegetation. Cover crops, in general, are not harvested. [Minn. R. 7001]
	5.4.148	"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. [Minn. R. 7001]
	5.4.149	"Crop Year Total" is the calculated total quantity of a given measurement for a cropping year (September 1 - August 31). For example, total quantity of industrial by-product land applied during the cropping year. The "Crop Year Total" limit is an upper limit. [Minn. R. 7001]
	5.4.150	"Dewatered Industrial By-product" means an industrial by-product with a total solids content of 20% or greater or which can be transported and handled as a solid material. [Minn. R. 7001]
	5.4.151	"Dike" means an embankment, ridge, or wall which is impermeable to stored substances and which forms the perimeter of the secondary containment area. [Minn. R. 7001]
	5.4.152	"Dry Weight Basis" means calculated on the basis of having been dried at 105 degrees Celsius until reaching a constant mass, or essentially 100 percent solids content. [Minn. R. 7001]
	5.4.153	"End User" means the person that has accepted the by-product for their use as a soil amendment. [Minn. R. 7001]
	5.4.154	"Fallow Land" means land which is not cropped throughout a cropping year and has a vegetative cover of less than 25 percent. [Minn. R. 7001]
	5.4.155	"Grassed Waterways" means natural or constructed areas 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. [Minn. R. 7001]
	5.4.156	"Hazardous Waste" means a waste that may pose greater human health or environmental risks due to their chemical properties. See the following fact sheet: https://www.pca.state.mn.us/sites/default/files/w-hw1-01.pdf. [Minn. R. 7001]
	5.4.157	"Highly Permeable Soil" means soils whose soil leaching potentials are rated as severe, poor filter for soil

		pesticide loss, by the Natural Resources Conservation Service using the procedure found in part 620, Soil Interpretation Rating Guides of the United States Department of Agriculture-Natural Resources Conservation Service National Soils Survey Handbook. [Minn. R. 7001]
	5.4.158	"Immediately Incorporated" means incorporated into the soil with tillage within 48 hours after surface application of an industrial by-product. [Minn. R. 7001]
	5.4.159	"Industrial By-Product" has the same meaning as solid waste given in Minn. R. 7035.0300. [Minn. R. 7001]
	5.4.160	"Intermittent Stream" means a drainage channel with definable banks that provides for runoff flow to any of the surface waters during snow melt or rainfall events. [Minn. R. 7001]
	5.4.161	"Karst topography" means an area underlain by fractured carbonate bedrock in which erosion has produced geological characteristics such as: sinkholes; springs, subsurface drainage; caves; sinking streams; dissolutionally enlarged joints (grikes) or bedding planes, and bedrock surface channels (karren). Counties known for karst features include parts of Dakota, Rice, Dodge, and Mower, and most of Goodhue, Olmsted, Winona, Wabasha, Houston and Fillmore. [Minn. R. 7001]
	5.4.162	"Liquid Industrial By-Product" means any industrial by-product that does not meet the definition of dewatered industrial by-product. [Minn. R. 7001]
	5.4.163	"Long-term Storage" means storage of dewatered industrial by-product less than 7 months. Further requirements are listed in the Industrial By-Product Storage section of the permit. [Minn. R. 7001]
	5.4.164	"Maximum Allowable Nitrogen Application Rate" means the maximum amount of available nitrogen which can be applied to a site during a single cropping year. [Minn. R. 7001]
	5.4.165	"MPCA" means the Minnesota Pollution Control Agency, or Minnesota Pollution Control Agency staff as delegated by the Minnesota Pollution Control Agency. [Minn. R. 7001]
	5.4.166	"Other Regulated Substances" means any substance, including a food-based product intended for human or animal consumption, which may cause pollution of waters of the state and is not: A. A petroleum substance under standard temperature and pressure; or B. A hazardous material. [Minn. R. 7001]
	5.4.167	"Pathogens" means organisms that are capable of producing an infection or disease in a susceptible host. [Minn. R. 7001]
	5.4.168	"Perched Water Table" means the soil is saturated with water in one or more layers within 200 centimeters of the mineral soil surface and has one or more unsaturated layers with an upper boundary above 200 centimeters in depth below the saturated layer. The zone of saturation , i.e. the water table is perched on top of a relatively impermeable layer. The Natural Resources Conservation Service also classifies this as epi-saturation. [Minn. R. 7001]
	5.4.169	"Permanent Storage" means storage of dewatered industrial by-product more than 7 months. Further requirements are listed in the Industrial By-Product Storage section of the permit. [Minn. R. 7001]
	5.4.170	"Permittee" means the entity or multiple entities identified as Permittee(s) on the permit cover page of this permit. [Minn. R. 7001]
	5.4.171	"Private livestock truck wash" means a truck washing facility owned or leased, operated, and used only by a feedlot operator to wash trucks owned or leased by the feedlot operator and used to transport animals or supplies to and from the feedlot. [Minn. Stat. ch. 116.07]
	5.4.172	"Public Contact Site" means land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, and golf courses. [Minn. R. 7001]
	5.4.173	"Realistic Yield Goal" means the most recent five-year average of crop yields, excluding the worst year, or the most recent three to five year average yield increased by ten percent. If the crop has never been grown, the yield goal can be determined based on information provided by the Natural Resources Conservation Service, county Extension agent, or crop consultant. [Minn. R. 7001]
	5.4.174	"Short-term Storage" means storage of dewatered of industrial by-product less than 30 days. Further requirements are listed in the Industrial By-Product Storage section of the permit. [Minn. R. 7001]
	5.4.175	"Single Value" is a reported value from a single sample or measurement for which there is no limit. [Minn. R. 7001]
	5.4.176	"Soil Horizon" means a layer of soil that is approximately parallel to the soil surface and has some set of properties that has been produced by soil-forming processes, and has some properties that are not like those of the layers above and beneath it. These properties include color, structure, texture, consistency, and bulk density. [Minn. R. 7001]

	5.4.177	"Soil Texture" means the relative portion of the soil separates sand, silt, and clay. It can be measured using methods described in Minn. R. 7041.3400, subp. 1. Coarse texture is US Department of Agriculture textural classifications sand, loamy sand, and sandy loam. Medium texture is US Department of Agriculture classifications loam, silt, silt loam, and sandy clay loam. Fine texture is US Department of Agriculture classifications clay loam, silty clay loam, sandy clay, and clay. [Minn. R. 7001]
	5.4.178	"Type IV Certified Operator or Inspector" means a person certified according to Minn. R. ch. 7048 for land application. A Type IV facility is any disposal facility that applies on the land any sewage sludge or semisolids from commercial or industrial operations. [Minn. R. 7001]
	5.4.179	"Underground Storage Tank" means any one or combination of containers including tanks, vessels, enclosures, or structures and appurtenances connected to them that is used to contain or dispense regulated substances pursuant to Minn. R. 7150, and the volume of which, including the volume of piping connected to them, is ten percent or more beneath the surface of the ground. [Minn. R. 7001]
	5.4.180	"Vector Attraction" means the characteristic of industrial by-product that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents. [Minn. R. 7001]
	5.4.181	"Waters of the State" means all streams, lakes, ponds, marshes, wetlands, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof. [Minn. R. 7001]
	5.4.182	"Wetlands" means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Constructed wetlands designed for wastewater treatment are not waters of the state. Wetlands must have the following attributes: A. A predominance of hydric soils; B. Inundated or saturated by surface water or groundwater at a frequency and duration to support a prevalence of hydrophytic vegetation typically adapted for life in a saturated soil condition; and C. Under normal circumstances support a prevalence of such vegetation. [Minn. R. 7001]
		Total Facility Requirements (SDS)
	5.5.183	**No Discharge.** There shall be no point source discharge to surface water from the permitted activity. [Minn. R. 7001]
	5.5.184	**Definitions.** Refer to the Permit User's Manual found on the MPCA's website at https://www.pca.state.mn.us/sites/default/files/wq-wwtp7-09.pdf for standard definitions. [Minn. R. 7001]
	5.5.185	**Incorporation by Reference.** This permit incorporates the following applicable federal and state laws as enforceable parts of this permit: 40 CFR pts. 122.41, 122.42, 136, 403 and 503; Minn. R. chs. 7001, 7041, 7045, 7050, 7052, 7053, 7060, and 7080; and Minn. Stat. chs. 115 and 116. [Minn. R. 7001]
	5.5.186	**Permittee Responsibility.** The Permittee shall perform the actions or conduct the activities authorized by this permit in compliance with the conditions of the permit and, if required, in accordance with the plans and specifications approved by the MPCA. [Minn. R. 7001.0150, subp. 3(E)]
	5.5.187	**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 40 CFR pts. 400 to 460; Minn. R. chs. 7050, 7052, and 7053; and any other applicable MPCA rules. [Minn. R. 7001.1090, subp. 1(A)]
	5.5.188	**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, excessive suspended solids, material discoloration, obnoxious odors, gas ebullition, deleterious sludge deposits, undesirable slimes or fungus growths, aquatic habitat degradation, excessive growths of aquatic plants, acutely toxic conditions to aquatic life, or other adverse impact on the receiving water. The discharge shall not cause a material discoloration in the receiving water. Any discharge that results in a discernable change to the existing/ambient color of the receiving water constitutes material discoloration. [Minn. R. 7050.0210, subp. 2]

	5.5.189	**Property Rights.** This permit does not convey a property right or an exclusive privilege. [Minn. R. 7001.0150, subp. 3(C)]
	5.5.190	**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(O)]
	5.5.191	The MPCA's issuance of this permit does not obligate the MPCA to enforce local laws, rules, or plans beyond what Minnesota statutes authorize. [Minn. R. 7001.0150, subp. 3(D)]
	5.5.192	**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(A)]
	5.5.193	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(B)]
	5.5.194	**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. [Minn. R. 7001]
	5.5.195	**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. [Minn. R. 7001]
	5.5.196	**Inspection and Entry.** When authorized by Minn. Stat. ch. 115.04, 115B.17, subd. 4, and 116.091, and upon presentation of proper credentials, the Permittee shall allow the MPCA, or an authorized employee or agent of the MPCA, 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, monitoring, and other inspection equipment, pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activities covered by the permit. [Minn. R. 7001.0150, subp. 3(I)]
	5.5.197	**Control Users.** The Permittee shall regulate the users of its facility 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. [Minn. R. 7001.0150, subp. 3(F)]
	5.5.198	**Sampling**. [Minn. R. 7001]
	5.5.199	**Representative Sampling.** Sampling and measurements required by the permit shall be conducted as specified in the permit and shall be representative of the discharge or monitored activities. [Minn. R. 7001.0150, subp. 2(B)]
	5.5.200	**Additional Sampling.** If the Permittee monitors more frequently than required, they shall report the results and the frequency of monitoring on their eDMR for that reporting period. [Minn. R. 7001.1090, subp. 1(E)]
	5.5.201	**Certified/Accredited Laboratory.** A laboratory accredited by the Minnesota Department of Health [Minn. R. 4740.2010 through Minn. R. 4740.2120] and/or certified by the MPCA [Minn. R. 7001.4310 through Minn. R. 7001.4390] shall conduct analyses required by this permit, unless approved in writing by the MPCA. A certified/accredited laboratory does not need to complete analyses of dissolved oxygen, pH, temperature, specific conductance, and total residual oxidants (chlorine, bromine). Those analyses shall comply with 40 CFR pt. 136, including calibrations and the QA/QC section. Dissolved oxygen, pH, and total residual oxidants must be performed on-site. Follow the manufacturer's specifications for equipment maintenance and use. [Minn. R. 4740.2010-4740.2120, Minn. R. 7001.4310-7001.4390]
	5.5.202	**Sample Preservation and Procedure.** Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR pt. 136, including calibrations, the QA/QC section, and Minn. R. 7041.3200. Note - Table II of 40 CFR pt. 136.3 contains the requisite sample container, preservation (including, but not limited to thermal and pH adjustment), and holding times.

		[Minn. R. 7001.0150, subp. 2(B), Minn. R. 7041.3200]
	5.5.203	**Equipment Calibration.** The Permittee shall check and/or calibrate flow meters, pumps, flumes, lift stations, or other flow monitoring equipment used for purposes of determining compliance (within plus or minus ten percent of the true flow values) with permit requirements at least twice annually. [Minn. R. 7001.0150, subp. 2(B & C)]
	5.5.204	**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: A. The exact place, date, and time of the sample or measurement; B. The date and time 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. [Minn. R. 7001.0150, subp. 2(C)]
	5.5.205	**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 or as stipulated elsewhere in this permit. The Permittee shall record the information in the specified areas on those forms and in the units specified. Required forms may include a Sample Values Form. If required, the Permittee shall record individual values for each sample and measurement on the Sample Values Form provided by the MPCA. The Permittee shall submit the Sample Values Form with the appropriate eDMRs. The Permittee may design and use their own Sample Values Form after MPCA review and approval. Note: The Permittee shall also record required summary information on their eDMR. Permittee submitted summary information contained only on the Sample Values Form does not comply with reporting requirements. [Minn. R. 7001.0150, subp. 2(B), Minn. R. 7001.1090, subp. 1(D)]
	5.5.206	**Submitting Reports.** The Permittee shall submit eDMRs, Sample Values Forms, and other supplemental attachment forms via MPCA e-Services after the MPCA approves their authorization request. The Permittee shall electronically submit eDMRs, Sample Values Forms, and other supplemental attachment forms by the 21st day of the month following the sampling period or otherwise as specified in this permit. The Permittee shall complete eDMR submittal on or before 11:59 p.m. of the 21st day of the month following the sampling period or as otherwise specified in this permit. The Permittee shall submit an eDMR for each required station even if no discharge occurred during the reporting period. The Permittee shall submit other reports required by this permit electronically. The Permittee shall submit reports by the date specified in this permit. The Permittee shall submit reports on or before 11:59 p.m. on the date specified in this permit. Electronically: wq.submittals.mpca@state.mn.us Include water quality submittals form: www.pca.state.mn.us/sites/default/files/wq-wwprm7-71.docx. [Minn. R. 7001.0150, subp. 2(B), Minn. R. 7001.0150, subp. 3(H)]
	5.5.207	**Incomplete or Incorrect Reports.** The Permittee shall immediately submit an electronically amended report or eDMR to the MPCA upon discovery by the Permittee or notification by the MPCA that it has submitted an incomplete or incorrect report or eDMR. The amended report or eDMR shall contain the missing or corrected data along with a comment on the eDMR explaining the circumstances of the incomplete or incorrect report. If it is impossible to amend the report or eDMR electronically, the Permittee shall immediately notify the MPCA and the MPCA will provide direction for the amendment submittals. [Minn. R. 7001.0150, subp. 3(G)]
	5.5.208	**Required Signatures.** The Permittee or the duly authorized representative of the Permittee shall sign all eDMRs, forms, reports, and other documents submitted to the MPCA per Minn. R. 7001.0150, subp. 2(D).

		The person or persons who sign the eDMRs, forms, reports, or other documents shall certify that he or she understands and complies with the certification requirements of Minn. R. chs. 7001.0070 and 7001.0540, including the penalties for submitting false information. A registered professional engineer shall certify technical documents, such as design drawings and specifications, and engineering studies submitted as part of a permit application or by permit conditions. [Minn. R. 7001.0540]
	5.5.209	**Reporting Limit (RL).** The Permittee shall report monitoring results below the 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 Permittee shall report the concentration as "< 0.1 mg/L." The Permittee shall not use "non-detected," "undetected," "below detection limit," or "zero" when reporting results. The MPCA considers these terms as permit reporting violations. Where sample values are less than the RL and the permit requires reporting of an average, the Permittee shall calculate the average as follows: A. If some values are less than (<) the RL, substitute zero for all non-detectable values to use in the average calculation; B. If all values are less than (<) the RL, calculate the average and report as < the RL average concentration; and C. To calculate a mass loading with a less than (<) the RL concentration, use the RL value in the calculation and then add the "<" to the product of the concentration and the volume. [Minn. R. 7001.0150, subp. 2(B)]
	5.5.210	**Records.** The Permittee shall, when requested by the MPCA, 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 activities covered by the permit. [Minn. R. 7001.0150, subp. 3(H)]
	5.5.211	**Confidential Information.** Except for data determined to be confidential according to Minn. Stat. ch. 116.075, subd. 2, all reports required by this permit are available for public inspection. The MPCA does not consider effluent data confidential. To request the MPCA maintain data as confidential, the Permittee shall follow Minn. R. 7000.1300. [Minn. R. 7000.1300]
	5.5.212	**Noncompliance and Enforcement**. [Minn. R. 7001]
	5.5.213	**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. ch. 115.071 and 116.072, including monetary penalties, imprisonment, or both. [Minn. R. 7001.1090, subp. 1(B)]
	5.5.214	**Criminal Activity.** The Permittee shall not knowingly make a false statement, representation, or certification in a record or other document submitted to the MPCA. A person who falsifies a report or document submitted to the MPCA, or tampers with, or knowingly renders inaccurate a monitoring device or method that requires maintenance under this permit is subject to criminal and civil penalties provided by federal and state law. [Minn. R. 7001.0150, subp. 3(G), Minn. R. 7001.1090, subp. 1(G & H), Minn. Stat. ch. 609.671, subd. 1]
	5.5.215	**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)]
	5.5.216	**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 occurred and that the noncompliance 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 five days of the discovery. If the Permittee discovers other noncompliance that does not explicitly endanger human health,

		public drinking water supplies, or the environment, the Permittee shall report the description of noncompliance within 30 days of the discovery. If no eDMR is required within 30 days, the Permittee shall submit a written report (see the Submitting Reports part of this chapter) including the description of noncompliance 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. [Minn. R. 7001.0150, subp. 3(K)]
	5.5.217	**Upset Defense.** In the event of temporary noncompliance with an applicable effluent limitation(s) 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 MPCA 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(I); and F. That the Permittee implemented the remedial measures required by Minn. R. 7001.0150, subp. 3(J). [Minn. R. 7001.1090]
	5.5.218	**Release**. [Minn. R. 7001]
	5.5.219	**Unauthorized Releases of Wastewater Prohibited.** This permit prohibits overflows, discharges, spills, or other releases of wastewater or materials to the environment, whether intentional or not, except for discharges from outfalls specifically authorized by this permit. 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. [Minn. Stat. ch. 115.061, Minn. Stat. ch. 115.061]
	5.5.220	**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 800-422-0798 or 651-649-5451 (metro area) immediately upon discovery of the release. In addition to the required notification to the Duty Officer, the Permittee may also contact the MPCA during business hours at 800-657-3864 or 651-296-6300 (metro area); C. Promptly after notifying the agency of a discharge, a publicly owned treatment works or a publicly or privately owned domestic sewer system owner must provide notice to the potentially impacted public and to any downstream drinking water facility that may be impacted by the discharge. Notice to the public and to any drinking water facility must be made using the most efficient communications system available to the facility owner such as in person, telephone call, radio, social media, web page, or another expedited form. In addition, signage must be posted at all impacted public use areas within the same jurisdiction or notification must be provided to the entity that has jurisdiction over any impacted public use areas. A notice under this paragraph must include the date and time of the discharge, a description of the material released, a warning of the potential public health risk, and the permittee's contact information; and D. 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 Permittee cannot immediately or completely recover the released materials or substances, 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. [Minn. R. 7001.1090, Minn. Stat. ch. 115.061, subp. C]
	5.5.221	**Sampling of a Release.** Upon discovery of a release, the Permittee shall: A. Collect representative samples of the release. The Permittee shall sample the release for permitted effluent parameters and other 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, the Permittee shall collect fecal coliform bacteria samples where the Permittee determines that the release contains or may contain sewage. If the Permittee cannot immediately stop the release, the Permittee shall consult with the MPCA regarding additional sampling requirements. The Permittee shall collect samples at least, but not limited to, two times per week for as long as the release continues, or as stipulated elsewhere in this permit; B. The Permittee shall submit the Release Report information according to guidance found here: https://www.pca.state.mn.us/sites/default/files/wq-wwtp7-20a.docx. The Permittee shall submit the Release Report to the MPCA with the next eDMR or within 30 days, whichever is sooner. If the Permittee submits quarterly eDMRs and the next submittal is greater than 30 days, the Release Report may be submitted to the water quality submittals email address (see the Submitting Reports part of this chapter); and C. Submit the sampling results on the Release Report located on the MPCA's website at https://www.pca.state.mn.us/business-with-us/discharge-monitoring-reports. [Minn. R. 7001.1090]
	5.5.222	**Bypass**. [Minn. R. 7001]
	5.5.223	"Essential Maintenance" is a scheduled maintenance event that is required to ensure efficient operation of the facility. [Minn. R. 7001.1020, subp. 13]
	5.5.224	"Effluent limitation" means a restriction established by rule or permit condition on quantities, discharge rates, and concentrations of pollutants that are discharged from point sources into waters of the state. [Minn. R. 7001.1020, subp. 13]
	5.5.225	**Anticipated Bypass.** The Permittee may allow any bypass to occur that does not cause effluent limitation exceedances, but only if the bypass is for a scheduled essential maintenance event to assure efficient operation of the facility. The Permittee shall submit prior notice to the MPCA at least ten days before the date of the bypass, if possible. The notice of the need for an anticipated bypass shall include the following information: A. The proposed date and estimated duration of the bypass; B. The alternatives to bypassing; and C. A proposal for effluent sampling during the bypass. Any bypass wastewater shall enter waters of the state from outfalls specifically authorized by this permit. Therefore, the Permittee shall collect samples at the frequency and location identified in this permit or two times per week for as long as the bypass continues, whichever is more frequent. [Minn. R. 7001.1090, subp. 1(J)]
	5.5.226	Any bypass that is not anticipated for a scheduled essential maintenance event is considered unanticipated and is prohibited. This permit prohibits all other bypasses. In the event of an unanticipated bypass, the Permittee shall: A. Take all reasonable steps to immediately end the bypass; B. Notify the Minnesota Department of Public Safety Duty Officer at 800-422-0798 or 651-649-5451 (metro area) immediately upon commencement of the bypass. In addition to the required notification to the Duty Officer, the Permittee may also contact the MPCA during business hours at 800-657-3864 or 651-296-6300 (metro area); C.Immediately take 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 directed by the MPCA, the Permittee shall consult with other local, state, or federal agencies for implementation of abatement, clean up, or remediation activities; and D. The Permittee shall collect samples at the frequency and location identified in this permit or two times per week for as long as the bypass continues, whichever is more frequent. The Permittee shall also follow the reporting requirements for effluent violations as specified in this permit. [Minn. R. 7001.1090, subp. 1(K), Minn. Stat. ch. 115.061]

	5.5.227	**Notification of the Public**. Following immediate notification to the Minnesota Department of Public Safety Duty Officer and the MPCA of any discharge event that could endanger human health, public drinking water supplies, or the environment, or a Release or Bypass, as described above, the Permittee shall promptly notify the public and any drinking water facility of the discharge. Notice to the public and to any drinking water facility must be made using the most efficient communications system available to the facility owner such as in person, telephone call, radio, social media, webpage, or another expedited form. In addition, signage must be posted at all impacted public use areas within the same jurisdiction or notification must be provided to the entity that has jurisdiction over any impacted public use areas. A notice under this requirement must include the date and time of the discharge, a description of the material released, a warning of the potential public health risk, and the Permittee's contact information. [Minn. Stat. ch. 115.061]
	5.5.228	In addition to other facts or incidents required by the permit to be reported within 24 hours, the Permittee shall report in accordance with part 7001.0150, subpart 3, item K any unanticipated bypass, or upset that causes an exceedance of an applicable effluent limitation. [Minn. R. 7001.1090, subp. 1]
	5.5.229	**Operation and Maintenance**. [Minn. R. 7001]
	5.5.230	The Permittee shall at all times properly operate and maintain the facilities, sewer system, 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(F)]
	5.5.231	In the event of a reduction or loss of effective treatment of wastewater at the facility, the Permittee shall control production or curtail 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 they restore facility treatment processes or until the Permittee provides an alternative method of treatment. [Minn. R. 7001.1090, subp. 1(C)]
	5.5.232	**Solids Management.** The Permittee shall properly store, transport, and manage biosolids, septage, sediments, residual solids, filter backwash, screenings, oil, grease, and other substances so that pollutants do not enter surface waters or groundwaters of the state. The Permittee shall manage solids in accordance with local, state, and federal requirements. [40 CFR 503, Minn. R. 7041]
	5.5.233	**Scheduled Maintenance.** The Permittee shall schedule maintenance of the treatment works during non-critical water quality periods to prevent water quality degradation, except where the facility requires emergency maintenance to prevent a condition that would be detrimental to water quality or human health. [Minn. R. 7001.0150, subp. 2(B), Minn. R. 7001.0150, subp. 3(F)]
	5.5.234	**Control Tests.** The Permittee shall conduct in-plant control tests at a frequency adequate to ensure compliance with the conditions of this permit. [Minn. R. 7001.0150, subp. 2(B), Minn. R. 7001.0150, subp. 3(F)]
	5.5.235	**Changes to the Facility or Permit**. [Minn. R. 7001]
	5.5.236	**Permit Modifications.** Except as provided under Minn. Stat. ch. 115.07, subd. 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 MPCA issues a written permit for the facility or activity. Permittees that propose to make changes to the facility or discharge that requires permit modification shall follow Minn. R. 7001.0190. If the Permittee cannot determine whether the proposed changes require a permit modification, the Permittee shall contact the MPCA prior to any action. The MPCA recommends that Permittees submit the application for permit modification to the MPCA at least 180 days prior to the planned change. [Minn. R. 7001.0030]
	5.5.237	This permit does not require plans, specifications, and MPCA approval 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, Permittees can replace a broken pipe, lift station pump, aerator, or blower with the same design-sized equipment without MPCA approval. If this permit does not expressly authorize proposed construction, the MPCA may require a permit modification. If the proposed construction project requires an Environmental Assessment Worksheet under Minn. R. 4410, no construction shall begin until the MPCA issues a negative declaration and the Permittee receives or implements all approvals. [Minn. R. 7001.0030]
	5.5.238	**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(M)]
	5.5.239	**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 increase or new use of a chemical additive at least 60 days, or as soon as possible, before the proposed increase or new use. The Permittee shall include at least the following information for the proposed additive as instructed in the chemical additive approvals section on the MPCA's website at https://www.pca.state.mn.us/business-with-us/wastewater-permit-additional-guidance-and-information (under Chemical additive approvals): A. Follow Chemical Additive Review Guidance (wq-prm2-12) and complete the Chemical Additive calculator tool (wq-wwprm2-12a.xlsm), including; B. The process for which the additive will be used; C. Safety Data Sheet (SDS) which shall include aquatic toxicity, human health, and environmental fate information for the proposed additive. The aquatic toxicity information shall include at minimum the results of: a) a 48-hour LC50 or EC50 acute study for a North American freshwater planktonic crustacean (such as Ceriodaphnia or Daphnia sp.) and b) a 96-hour LC50/EC50 acute study such as rainbow trout, bluegill, or fathead minnow or another North American freshwater aquatic species other than a planktonic crustacean; D. A complete product use and instruction label; E. The commercial and chemical names and Chemical Abstract Survey (CAS) number for all ingredients in the additive (If the SDS 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 F. The proposed method of application, application frequency, 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 or use of an additive not requiring formal review and approval 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, including nuisance conditions and material discoloration. [Minn. R. 7001.0170]
	5.5.240	**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 of this permit pursuant to Minn. R. 7001.0180. [Minn. R. 7001.0170, Minn. R. 7001.0180]
	5.5.241	**Total Maximum Daily Load (TMDL) Impacts.** The MPCA may require facilities that discharge to an impaired surface water, watershed, or drainage basin to comply with additional permits or permit requirements. These requirements can include additional restriction or relaxation of limits and monitoring as authorized by the CWA 303(d)(4)(A) and 40 CFR ch. 122.44(l)(2)(i), necessary to ensure consistency with the assumptions and requirements of any applicable EPA approved wasteload allocations resulting from TMDL studies. [40 CFR 122.44(I)(2)(i)]

	5.5.242	**Permit Transfer.** This permit is not transferable to any person without the express written approval of the MPCA after compliance with the requirements of Minn. R. 7001.0190. A person who receives permit transference shall comply with the conditions of this permit. [Minn. R. 7001.0150, subp. 3(N)]
	5.5.243	**Facility Closure or Significant Reduction in Activity.** 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 Permittee may submit a Facility Closure Plan to the MPCA no later than 150 days prior to the Facility Closure, and the MPCA may require submittal of a Facility Closure Plan via written notification. The Permittee may comply with the submitted Facility Closure Plan. The MPCA may require a permit modification or reissuance for facility closure that could result in a potential long-term water quality concern, such as the ongoing discharge of wastewater to surface or groundwater. 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 the MPCA requires financial assurance, the MPCA shall approve the amount and type of financial assurance, and proposed modifications to previously MPCA-approved financial assurance. [Minn. Stat. ch. 116.07, subd. 4]
	5.5.244	**Permit Reissuance.** If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for permit reissuance: Due by 180 days prior to permit expiration. [Minn. R. 7001.0040]
	5.5.245	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: 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; or 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 [Minn. R. 7001.0040, Minn. R. 7001.0160]

6. Submittal action summary

MN0068411	Twin City Tanning LLP	
		Per- and Polyfluoroalkyl Substances (PFAS)
	6.1.1	The Permittee shall complete and submit a PFAS Source Identification and Reduction Report by 180 days prior to permit expiration. The report will include a compilation of all annual PFAS Source Identification and Reduction Evaluations over the life of the permit, summaries, recommendations, and discussion of corrective actions planned for the future. The Permittee shall submit a PFAS Source Identification and Reduction Report: Due by 180 days prior to permit expiration. [Minn. R. 7001]
		Land Application of Industrial By-Products
	6.2.2	The Permittee shall submit a Sampling, Analysis and Field Equipment Calibration Plan to address storage, management, and land application schedules by 60 days after permit issuance. The MPCA requires all permitted facilities to submit this plan. The Permittee may submit an updated version of a plan submitted as part of a previous permit term. The Permittee shall submit a Sampling, Analysis and Field Equipment Calibration Plan: Due by 60 days after permit issuance. [Minn. R. 7001]
	6.2.3	The Permittee shall submit an Industrial By-Product Annual Report by December 31 of each year following permit issuance. The Permittee shall report on the MPCA form available electronically at https://www.pca.state.mn.us/business-with-us/land-application-of-industrial-by-products or another MPCA-approved form. The Permittee shall submit an industrial by-product land application annual report: Due by December 31 of each year following permit issuance. [Minn. R. 7001]
		Total Facility Requirements (SDS)
	6.3.4	**Permit Reissuance.** If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for permit reissuance: Due by 180 days prior to permit expiration. [Minn. R. 7001.0040]

Permit issued: TBD
Permit expires: TBD

7. Limits and monitoring

Waste stream station: Industrial by-product to land application (WS 301)

Analytical requirements and sampling analysis frequency for WS 301.

Parameter	Units[1]	Monthly	Yearly
Chloride, Dry Weight (as Cl)	mg/kg	X	
Nitrogen, Ammonia, Dry Weight	%	X	
Nitrogen, Kjeldahl, Total, Solids Fraction, Dry Weight	%	X	
Oil and Grease, Total Recoverable (Hexane Extraction)	mg/kg	X	
pH, sludge	SU	X	
Phosphorus, Total	%	X	
Sodium, Dry Weight (as Na)	mg/kg	X	
Solids, Total	%	X	
Solids, Total Volatile, Percent of Total	%	X	
PFAS[2]	µg/kg		X

[1]Reported on a dry weight basis, except for pH.

[2]Per- and polyfluoroalkyl substances. Samples shall be analyzed for all the constituents that can be measured by EPA Method 1633A (currently 40 constituents).

Permit issued: TBD
Permit expires: TBD

Land application stations: Industrial by-product to land application (LA stations)

Analytical requirements for specific land application sites.

Parameter	Limit	Units	Limit type	Effective period	Sample type	Frequency	Notes
Organic matter, Total in soil	Monitor only	%	Crop year max	Sep-Aug	Composite	1 x 3 years	1
pH	Monitor only	SU	Crop year max	Sep-Aug	Composite	1 x 3 years	1
Phosphorus, BRAY-1 Ext in soil	200	ppm	Crop year max	Sep-Aug	Composite	1 x 3 years	1
Potassium, NH4AC, Exch in soil	Monitor only	ppm	Crop year max	Sep-Aug	Composite	1 x 3 years	1
Salts, water Soluble in soil	4	mmohs/cm	Crop year max	Sep-Aug	Composite	1 x 3 years	1
Soil texture	Monitor only	-	Crop year max	Sep-Aug	Composite	1 x 3 years	1, 2

[1]Soil testing must be conducted on each site that is used for land application ***within the three-year period prior to the date that the land application is conducted***. The soil tests submitted with the 'Industrial By-Products Site Notification' form must be collected no greater than six months prior to submittal of the form. The composite sample shall consist of a mixture of 15-20 sub-samples taken in the plow layer for every 40 acres.

[2]USDA Classification.

Permit issued: TBD
Permit expires: TBD

Appendix A: Industrial by-product

Table 1. Slope restrictions for application sites where industrial by-product is applied.

Slope (percent)	Surface application	Injection or Immediate Incorporation[1]
0 - 6	Allowed	Allowed
> 6 - 12	Not allowed	Allowed
> 12	Not allowed	Not allowed

[1]Immediate incorporation is mixing of the by-product into the soil with some form of tillage within 48 hours of application.

Table 2. Minimum separation distances from the land application site.

		Separation distances (feet)		
Feature		**Surface applied**	**Incorporated within 48 hours**	**Injected**
Private drinking water supply wells		200 feet	200 feet	200 feet
Public drinking water supply wells		1000 feet	1000 feet	1000 feet
Downgradient lakes, rivers, streams, type 3, 4, and 5 wetlands, intermittent streams[1], or tile inlets connected to these surface water features, and sinkholes	Slope 0% to 6%	200 feet	50 feet	50 feet
	Slope 6% to 12%	Not Allowed	100 feet	100 feet
	Winter (0% to 2%)	600 feet	Not applicable	Not applicable
Grassed water ways[2]	Slope 0% to 6%	100 feet	33 feet	33 feet
	Slope 6% to 12%	Not allowed	33 feet	33 feet

[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.

Table 3. Additional minimum separation distances from application sites when the industrial by-product contains pathogens.

	Separation distances (feet)		
Feature	**Surface applied**	**Incorporated within 48 hours**	**Injected**
Residences	200 feet[1]	200 feet[1]	100 feet
Residential development	600 feet[1]	600 feet[1]	300 feet
Public contact site	600 feet	600 feet	300 feet
Depth to bedrock	5 feet[2]	5 feet[2]	5 feet[2]
Depth to seasonal high water table or drain tile[3]	5 feet[2]	5 feet[2]	5 feet[2]
Private supply wells	200 feet	200 feet	200 feet
Public supply wells	1000 feet	1000 feet	1000 feet
Irrigation wells	50 feet	25 feet	25 feet

[1]This distance may be reduced with written permission from all persons responsible for residential developments, places of recreation, and all persons inhabiting a residence within the designated separation distance.

[2]The separation distance may be decreased to 3 feet if the soil is not classified as a "highly permeable soil," as defined by this permit.

[3]The depth to subsurface drainage tiles shall be considered the depth to the seasonal high water table for sites that are designed according to Natural Resources Conservation Services engineering standards and criteria.

Table 4. Maximum allowable nitrogen application rates for selected crops.

Crop	**Maximum allowable nitrogen application rates - When actual yields are not measured (lb/acre)**	**Maximum allowable nitrogen application rates - When actual yields are measured**
Non-harvested vegetation, set aside acreage, cover crops[1]	50	–
Soybeans	–	Yield goal (bu/acre) x 3.5 lb N
Alfalfa	200	Yield goal (tons/acre) x 50 lb N/acre
Clover, alfalfa-grass, or clover-grass mixtures	100	Yield goal (tons/acre) x 50 lb N/acre
Brome grass, orchard grass, or timothy	75	Yield goal (tons/acre) x 30 lb N/acre

[1]This category does not include land used as pasture.

Table 5. Minimum separation distances for storage areas and structures of industrial by-products.

Feature		Short-term storage area/structure	Long-term storage area/structure	Permanent storage structure
Depth to bedrock		3 feet	5 feet[1]	3 feet
Depth to seasonal high water table or drain tile[2]		3 feet	5 feet[1]	3 feet
Private drinking water supply wells		200 feet	200 feet	200 feet
Public drinking water supply wells		1000 feet	1000 feet	1000 feet
Irrigation wells		50 feet	50 feet	50 feet
Residences		200 feet	1000 feet[3]	1000 feet[3]
Residential development		600 feet	1000 feet	1000 feet
Public contact site		600 feet	1000 feet	1000 feet
Adjacent properties/roads		100 feet	100 feet	100 feet
Downgradient lakes, rivers, streams, type 3, 4, and 5 wetlands, intermittent streams[5], or tile inlets connected to these surface water features, and sinkholes	Slope 0% to 2%	200 feet	1000 feet[4]	1000 feet[4]
	Slope 2% to 12%	Not allowed	Not allowed	Not allowed
Grassed water ways[6]	Slope 0% to 2%	100 feet	100 feet	100 feet
	Slope 2% to 12%	Not allowed	Not allowed	Not allowed

[1]The separation distance may be decreased to three feet if the storage area or structure includes an engineered pad or liner.

[2]The depth to subsurface drainage tiles shall be considered the depth to the seasonal high water table for sites that are designed according to Natural Resources Conservation Services engineering standards and criteria.

[3]Storage of industrial by-products at a location of 40 acres or less shall not take place within 400 feet from any residence. This separation distance shall increase 100 feet for every additional ten acres of land application area, or portion thereof, up to a maximum of 1,000 feet. Separation distances may be reduced if written permission is obtained from all persons residing within the otherwise protected distance.

[4]Storage of industrial by-product shall not take place within 1,000 feet of any downgradient surface waters, wetlands, tile inlets, or sinkholes unless measures are taken to control runoff; in which case, the separation distance may be reduced to 200 feet.

[5]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.

[6]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.

Permit issued: TBD
Permit expires: TBD

Appendix B: Missing site notification forms

Local Name	Cropping year last used
ALTl	2018
ALT2	2018
ALT3	2021
ALT4	2021
ALT6	2021
AS30	2019
AS31	2022
ASS	2020
AS54	2015
ASSS	2017
BO2	2019
BOS	2020
CM4	2020
CMS	2020
Fll	2017
FL2	2013
GPl	2017
JGl	2017
JG30	2015
JG31	2015
JG4	2017
JL3	2014
JLUl	2015
KMlO	2017
MT2	2017
OFl	2017
OF2	2016
OF3	2017
OF4	2018
OFS	2017
RJl	2018
RJ2	2017
RKl	2016
RK2	2016
RS77	2013
TSl	2016

Appendix C: Chemical additives

Chemical additives are used according to the chemical manufacturer's recommendations. This approval shall not justify any exceedances of permit limits or water quality standards.

Chemical additives currently used at the facility include the following:

Product name	Process in which used and purpose	Average rate of use
Sodium Sulfhydrate	Dissolve Hair on hides	87,936
Silastol 208	Degreaser and soap	6,732
Vinkol MTV	Liming assist to promote unhairing	54,500
Codex Lime	Raises pH to promote swelling in hides	42,000
Lime	Raises pH to promote swelling in hides	241,000
Soda Ash	Raises pH and helps maintain through soak	14,300
Sodium Sulfide Flakes	Dissolve Hair on hides	85,750
Supralan TV	Degreaser and soap	2,200
Vinkol MO	Maintain constant pH during soaking (used on fresh hides)	18,000
Vinkol PC	Maintain constant pH (used on cured hides)	3,425