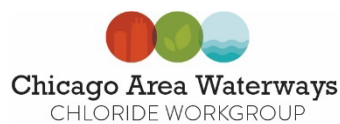


# Chloride Pollutant Minimization Plan for IMTT-ILLINOIS JOLIET

May 31, 2023

Prepared by IMTT-ILLINOIS JOLIET



IMTT-ILLINOIS JOLIET is a member of the  
Chicago Area Waterways Chloride  
Workgroup/Lower Des Plaines Watershed  
Group



## 1.0 Introduction to Chloride Issue in CAWS/LDPR

This Pollutant Minimization Plan (PMP) has been prepared by IMTT-Illinois Joliet to reduce the environmental impacts from the organization’s chloride related operations. IMTT-Illinois Joliet is a discharger covered under the Time Limited Water Quality Standard for Chloride for the Chicago Area Waterways System and Lower Des Plaines River watersheds. This PMP has been prepared to meet the requirements laid out in the Time Limited Water Quality Standard (TLWQS) for Chloride. The term of this PMP covers the first 5-years of the TLWQS period and will be updated following the re-evaluations at Years 4 ½, 9 ½, and 14 ½.

Chloride is a permanent pollutant. It does not degrade over time and continues to accumulate in the environment. Proactive measures to reduce the amount of chloride discharged can help reduce the impacts from chloride on receiving waterways and the environment. Chloride impacts aquatic life, vegetation, and infrastructure. As the chloride concentrations increase and our waters become saltier, aquatic and plant biodiversity decreases and native species are overtaken by salt tolerant invasive species.

Chlorides are commonly found in road salt, fertilizers, water softeners, dust suppressants, and certain industrial processes. Chloride-based deicers, like rock salt, are used on parking lots, sidewalks, and roads to provide safe surfaces to the public during the winter months. These deicers are one of most common sources of chloride in the Chicago region.

The water quality standard for chloride for the Chicago Area Waterway System (CAWS) was updated as part of the rulemaking process related to changing the designated use of the CAWS. The chloride standard was updated from 1,500 mg/L during the winter and 500 mg/L during the summer to 500 mg/L all year round. The change in the chloride water quality standard took effect in 2018. Because portions of the CAWS were not going to meet this new standard due to the need to maintain public safety on roads, highways, sidewalks and parking lots during the winter months, a joint submittal and supporting individual petitions were submitted between 2015 and 2018 to the Illinois Pollution Control Board for a variance from the chloride standard. The joint petition laid out best management practices that can be achieved by the petitioners to reduce their chloride use while maintaining public safety during winter storms. In addition to the CAWS, portions of the Lower Des Plaines River watershed were included as it receives water from the CAWS.

On November 4, 2021, the IPCB issued an Opinion and Order for a Time Limited Water Quality Standard (TLWQS) for Chloride for portions of the CAWS and Lower Des Plains River watersheds. The TLWQS for Chloride watersheds are defined in the Opinion and Order as the Des Plaines River watershed from the Kankakee River to the Will County Line (except for the DuPage River watershed) and the CAWS watershed (except the North Branch Chicago River watershed upstream of the North Shore Channel and those portions of the watershed located in Indiana). This is a watershed-based approach to reduce the chloride concentrations in the CAWS and Lower Des Plaines River. The TLWQS for Chloride requires all dischargers covered under the TLWQS for Chloride to create PMPs and implement specific best management practices based on their operations to reduce their chloride discharges.

## 2.0 Organization Info, Facilities’ Specific Info

### 2.1 Facility overviews/descriptions

Agency Name: Illinois Environment Protection Agency		
Facility Name: IMTT-Illinois Joliet		Permit Number: IL0063061
Facility Address: 24420 W Durkee Rd		
City: Joliet	State: IL	Zip Code: 60410

IMTT Illinois – Joliet Terminal is a bulk liquid, for-hire tank facility that engages in the receipt, storage and distribution of chlorinated hydrocarbons, solvents, petroleum products, and inorganic acids/bases. Bulk liquid chemicals are received by barge, rail, truck.

## **2.2 Chloride Sources**

During winter months, the facility hires an external contractor to maintain the parking lots and main roads. Operations use small amount of salt for their operation areas to eliminate slip hazards. The salt used for operational winter maintenance is stored within the area in covered plastic drums. Road salt is stored in a closed dumpster.

## **2.3 Level of Service for Winter Maintenance Activities**

IMTT contracts with a single snow removal contractor to manage the snow at Joliet. The contractor is providing the following data:

- Date
- Snow Fall Amount
- Air Temperature
- Ground Temperature
- Salt Applied
- Other chemicals applied.

These parameters are evaluated at the end of each season and will be compared to previous years to determine how to optimize salt used.

## **3.0 Chloride Monitoring Data**

Chloride monitoring data will be collected for the CAWS and Lower Des Plaines River watersheds per the IPCB order. The data will be maintained by the workgroups. Chloride data for the CAWS will be collected by MWRD for the CAWS watershed and provided to the workgroups as part of the annual reporting as required by the IPCB order. The Lower Des Plaines Watershed Group also maintains a USGS monitoring station in the Des Plaines River at Channahon, IL that collects continuous conductivity data to estimate chloride concentrations. IMTT-Illinois Joliet Plant will be collecting Chloride monitoring data from Outfall 001 per requirements of NPDES permit.

## **4.0 Chloride Reduction BMPs for POTWs, MS4s, CSOs, Industrial Sources, IDOT/Tollway**

As part of the Chloride TLWQS, specific BMPs were identified for POTWs, MS4s, CSOs, Industrial Sources, and IDOT/Tollway to reduce the chloride impact on the watershed. These BMPs will be implemented over the 15-year term and additional BMPs evaluated at 5-year intervals during the 15-year term. Further details about winter maintenance practices currently being implemented by IMTT-Illinois Joliet are included in the snow and ice plan, and the BMPs identified are outlined below:

## Workgroup BMP

Variance BMP	Currently Implementing	Will Implement (Target Year)	Agency Description of Current Implementation
The permittee must participate in a Chlorides workgroup for the CAWS or LDPR, depending on the watershed within which the facility's discharge is located.	X		IMTT-Illinois Joliet is a member of the Lower Des Plaines Watershed Group/Chicago Area Waterways Chloride Workgroup. A member of the IMTT-Illinois' staff has and will be attend the meetings.

## Salt Storage and Handling BMPs

Variance BMP	Currently Implementing	Will Implement (Target Year)	Agency Description of Current Implementation
Store all salt on an impermeable pad that must be constructed to ensure that minimal stormwater is coming into contact with salt unless the salt is stored in a container that ensures stormwater does not come into contact with the salt.	X		<i>Salt is stored in a permanent closed dumpster.</i>
Cover salt piles at all times except when in active use, unless stored indoors.	X		
For working areas, provide berms and or sufficient slope to allow snow melt and stormwater to drain away from the area. If snow melt and stormwater cannot be drained away from the working area, channeling water to a collection point such as a sump, holding tank or lined basin for collection, discharge at a later time, use for prewetting, and use for make-up water for brine must be considered.	X		
Good housekeeping practices must be implemented at the site, including: <ul style="list-style-type: none"> <li>cleanup of salt at the end of each day or conclusion of a storm event;</li> <li>tarping of trucks for transportation of bulk chloride;</li> </ul>		2023	

<ul style="list-style-type: none"> <li>• maintaining the pad and equipment;</li> <li>• good practices during loading and unloading;</li> <li>• cleanup of loading and spreading equipment after each snow/ice event;</li> <li>• a written inspection program for storage facility, structures and work area;</li> <li>• removing surplus materials from the site when winter activity finished where applicable;</li> <li>• annual inspection and repairs completed when practical;</li> <li>• evaluate the opportunity to reduce or reuse the wash water.</li> </ul>			
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**Winter Maintenance Operations BMPs**

<b>Variance BMP</b>	<b>Currently Implementing</b>	<b>Will Implement (Target Year)</b>	<b>Agency Description of Current Implementation</b>
Calibrate all salt spreading equipment at least annually before November 30th. Records of the calibration results must be maintained for each piece of spreading equipment.		2023	
Pre-wet road salt before use, either by applying liquids to the salt stockpile, or by applying liquids by way of the spreading equipment as the salt is deposited on the road.	X		Using coated salt which minimize dust formation
Use equipment to measure the pavement temperature unless such equipment has already been installed on road salt spreading vehicles.	X		
Develop and implement a protocol to vary the salt application rate based on pavement temperature, existing weather conditions, and forecasted weather conditions.		2023	

Track and record salt quantity used and storm conditions from each call-out.	x		
Develop a written plan for implementation of anti-icing, with milestones. The plan should consider increased use of liquids (e.g., carbohydrate products) beginning with critical locations such as bridges over streams.		2023	
Provide employees involved in winter maintenance operations with annual training before November 30th on best management practices in the use of road salt in operations, including the practice of plowing first and applying salt only after snow has been cleared.		2023	Majority of this is performed by outside contractor.
Be responsible for complying with all applicable BMPs even when deicing practices are contracted out and ensure that contractors are properly trained and comply with all applicable BMPs.		2023	
Complete an annual report, as required by paragraph 3(B) of this order, which is standardized in an electronic format and submitted to the IEPA's website and to the watershed group.		2023	
Obtain and put into place equipment necessary to implement all salt spreading/deicing measure specified in this BMP, such as any new or retrofitted salt spreading equipment necessary to allow for pre-wetting and proper rates of application.		2023	Majority of this is performed by outside contractor.

<b>BMP</b>	<b>Currently Implementing</b>	<b>Agency Description of Current Implementation</b>
Recording Snow Fall	x	Documentation
Recording Ice storm	x	Documentation
Recording Air Temperature	x	Documentation
Recording Salt Applied	x	Documentation
Recording Chemical Applied	x	Documentation

### 5.0 Plan to Implement BMPs

IMTT-Illinois Joliet will implement the follow to towards compliance with Chloride standards:

BMP: Good housekeeping practices will be implemented at the site, including:

- cleanup of salt at the end of each day or conclusion of a storm event.
- tarping of trucks for transportation of bulk chloride.
- maintaining salt storage dumpster.
- good practices during loading and unloading from the dumpster.
- cleanup around the dumpster after using material in dumpster.
- a written inspection program of storage area.
- removing surplus materials from the site when winter activity finished where applicable.
- annual inspection and repairs, if needed.

### 6.0 Other Chloride TLWQS Required Milestones

IMTT-Illinois Joliet will implement these specific milestones (not included in the above BMPs) as outlined by the Chloride TLWQS.

Milestone	Agency Completion Date	Agency Completion Details
6 MONTHS AFTER EFFECTIVE DATE: Petitioner establishes a mechanism for tracking of de-icing salt usage for each facility.	Data is available for 2021/2022 as well as 2022/2023 from Contractor	External contractors provide the data at the end of the season.2024
July 1st OF EVERY YEAR (BEGINNING WITH YEAR 2): Discharger must submit an Annual Report for the previous year beginning on May 1 and ending on April 30 of the following year to the Agency and the chlorides workgroup on. The report shall be on salt usage for deicing and steps taken to minimize salt use and makes the report publicly available.	By July 1 of each year, beginning in Year 2 2024.	IMTT-Illinois Joliet will submit an annual report to the workgroup and IEPA.
July 1st of YEAR 3, YEAR 8 and YEAR 13: The chlorides workgroup submits a Status Report to the IEPA which includes an analysis on the following: chlorides monitoring data; report on the chloride workgroup’s outreach strategy, which includes outreach efforts to expand coverage of the TLWQS, and outreach and training for nonpoint sources; identification of any new BMPs, treatment technology or salt alternatives; identification of the impediments and potential solutions of those impediments faced by dischargers and those granted coverage under the TLWQS that prevent them from completing the training and making all	By July 1 of year 3 2026, the workgroups will submit a Status Report to the IEPA.	

<p>capital purchases necessary to implement the required BMPs; and identification and description of any assistance (financial, technical, or otherwise) that the chloride workgroup may be able to provide.</p>		
<p>July 1st OF YEAR 4 ½: Chlorides workgroup submits to the Board its first proposed re-evaluation pleading consistent with the Board’s order granting the TLWQS.</p>	<p>By July 1 of year 4 ½ 2026, the workgroups will submit a re-evaluation to the IEPA and IPCB.</p>	