Chloride Pollutant Minimization Plan for Ozinga Ready Mix

2525 South Lumber Street

Chicago, Illinois 60616

Prepared by Ozinga Bros.

Chicago Area Waterways
CHLORIDE WORKGROUP

LOWER DES PLAINES
WATERSHED GROUP

Ozinga Bros. is a member of the Chicago Area Waterways Chloride Workgroup/Lower Des Plaines Watershed Group

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1.0 Introduction to Chloride Issue in CAWS/LDPR

This Pollutant Minimization Plan (PMP) has been prepared by Ozinga Ready Mix to reduce the environmental impacts from the organization's chloride related operations. Ozinga Ready Mix 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 Environmental Protection Agency		
Facility Name: Ozinga Ready Mix		Permit Number: ILGXX
Facility Address: 2525 South Lumber Street		
City: Chicago	State: IL	Zip Code: 60616

The site is a producer of ready-mix concrete. Materials stored at the site include sand, stone, cement, flyash, slag, admixtures, calcium chloride, diesel and road salt.

2.2 Chloride Sources

Possible chloride sources at the site include the use of road salt on internal and external roads. Salt is spread on these roads to prevent slips from personnel and vehicles.

2.3 Level of Service for Winter Maintenance Activities

Ozinga's goal is to provide a safe environment for our employees as they drive or walk throughout the site. The use of salt helps accomplish this goal.

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.

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 Ozinga are included in the snow and ice plan, which is included as Appendix [#]. 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**		Ozinga Ready-Mix has been a member of the Lower Des Plaines Watershed Group since 2022. Staff has attended regular meetings and training sessions.

Salt Storage and Handling BMPs

Variance BMP	Currently Implementing	Will Implement (Target Year)	Agency Description of Current Implementation
All salt will be stored on an impermeable pad constructed to ensure that minimal stormwater comes into contact with salt.	*x*		All salt is stored on impermeable pads.
Pads will be constructed to direct stormwater away from the salt pile. The permittee must consider	***x***		Salt is covered by Ozinga Ready-Mix unless it is in active use.

directing any drainage that enters the pad to a collection point where feasible.			
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		The site is sloped so stormwater does not flow directly into the river.
Good housekeeping practices must 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 the pad and equipment; • good practices during loading and unloading; • cleanup of loading and spreading equipment after each snow/ice event; • a written inspection program for storage facility, structures and work area; • removing surplus materials from the site when winter activity finished where applicable; • annual inspection and repairs completed when practical; • evaluate the opportunity to reduce or reuse the wash water.	***x***		Ozinga Ready-Mix uses good housekeeping practices for winter road salt related work including loading, salt deliveries, and facility inspections.

Winter Maintenance Operations BMPs

Variance BMP	Currently Implementing	Will Implement (Target Year)	Agency Description of Current Implementation
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.		Late 2023	Salt is hand applied. Ozinga Ready-Mix will minimize the salt used at the site while tracking the amount used.
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.		Late 2023	Ozinga Ready-Mix will look to implement this practice, but most salt is pre-bagged and applied by hand.
Use equipment to measure the pavement temperature unless such equipment has already been installed on road salt spreading vehicles.		Late 2023	Ozinga Ready-Mix will observe conditions of the ground to determine if the temperature is above or below 32F.
Develop and implement a protocol to vary the salt application rate based on pavement temperature, existing weather conditions, and forecasted weather conditions.		Late 2023	Ozinga Ready-Mix will observe conditions of the ground to determine if salt should be applied.
Track and record salt quantity used and storm conditions from each call-out.		Late 2023	The amount of salt used at each occurrence will be recorded.
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.		Late 2023	Ozinga Ready-Mix uses Anti-Icing as part of its winter operations. Information will be provided in the facility's Snow and Ice Plan.
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.		Late 2023	Ozinga Ready Mix completes annual training for winter maintenance staff each year. Training topics and procedures will be outlined each year.
Be responsible for complying with all applicable BMPs even when deicing practices are contracted out and ensure that contractors are property trained and comply with all applicable BMPs.		Late 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.		*July 1, 2023*	Ozinga Ready-Mix will complete and submit an annual report each year to IEPA and the workgroup by July 1.
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 prewetting, and use for makeup water for brine must be considered.	X		The site is sloped so stormwater does not flow directly into the river.
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 prewetting and proper rates of application.		*Late 2023*	All measures are scheduled to be in place in Late 2023.

5.0 Plan to Implement BMPs

The list of best management practices for the site is as follows:

Salt is stored on an impermeable pad

Cover all salt piles, unless in active use

Good housekeeping practices must be implemented, including the following: maintaining the pad, good practices during loading and unloading, a written inspection program, removing surplus materials when applicable, etc.

Calibrate all salt spreading activities annually.

Pre-wet salt in the equipment or by pre-wetting the salt pile, if applicable.

Observe road temperature.

Develop protocol to vary salt application temperature, based on pavement temp, existing weather conditions, and forecasted weather conditions

Track and record salt quantity used and storm conditions for each call out

Anti-icing measures with milestones

Training every year by November 30, 2023

Make sure contractors comply with salt-reducing measures

Submit an Annual Report

Drain salt away from salt storage area

Place salt spreading equipment

Plan to Implement BMP: *The Best Management Practices will be implemented through training for our employees.*

Schedule for Implementation: *All Best Management Practices will be implemented by November 30th, 2023.*

6.0 Other Chloride TLWQS Required Milestones

Ozinga Ready Mix 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.	February 10, 2023	The Pollution Minimization Plan and the mechanism for tracking salt usage has been implemented.
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, 2024	Ozinga Ready Mix 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 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.	By July 1 of year 3, the workgroups will submit a Status Report to the IEPA.	

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.	By November 12, 2026, the workgroups will submit a re-evaluation to the IEPA and IPCB.	