	MORTON SALT MANISTEE FACILITY	**MA 264** **Issue Date: 3-15-23** **Page 1 of 9**
Environmental, Health, Safety & Sustainable Development Procedure		
FUGITIVE DUST		

COVER PAGE

	NAME/TITLE	SIGNATURE	DATE
Owner:	Tim Lovley EHS&S Manager		3/15/23
Reviewed By:	Brian Blain Powerhouse Supt.		3/15/23
Reviewed By:	Nathan Thomas Maint. Reliability Mgr.		3/15/2023
Approved By:	Jeremy Logan General Manager		3/15/23

REVISION LOG

Environmental, Health, Safety & Sustainable Development Procedure

FUGITIVE DUST

Revision No.	Reason for Change(s)	Date
1	Coal Pile Addition	6-11-02
2	Wording change to Section No. 5, Item No. 7 (Brine Application)	7-12-02
3	Wording changes and additions made to combine Salt and Chemical programs	10-7-03
4	Section 5 (from Plan dated 10-7-03) combined with Section 4 to provide better comprehension. Also dust collection system language noted in the Bin House was added to the Filter Building	12-30-05
5	Updated to include changes to Boiler Ash Handling and Storage section as well as additional language to Ash Loading section	7-10-07
6	Scheduled Quarterly Review - No Changes	1-29-08
7	Eliminated language for the Elastomag and Mag Buildings as well as Waste Lime Piles, Paved Roads and Waste Lime Storage. Also eliminated reference to Rohm and Haas. Clarified language throughout the document.	6-8-09
8	Added M. Cichy to Management Team/Clarified Language in "Boiler Ash Handling and Storage" Paragraph/Minor Language Changes	2-14-11
9	Scheduled Update\Several Minor Language Changes	2-13-14
10	No Language Changes\Added R. Kinney, J. Logan, J. Bialik to Review Team\Eliminated D. Slivka from Review Team	6-8-15
11	Annual Review\Updated Review Team\Updated Second Paragraph - Boiler Ash Handling and Storage	6-7-17
12	Minor Language Changes/Eliminated first paragraph from Ash Loading Section	10-23-17
13	Minor Language Changes/ Changed Signature Page	6-6-19
14	Update Signature Page, update of spray both out of service, and blocks no longer being produced (dust collection system still operates for packaged products)	3-15-23

Morton Salt Drawing W-9-o-150 depicts potential sources of fugitive dust including outdoor bulk storage areas, vehicular traffic routes and buildings. Operations which could generate fugitive dust in each area are described below. Morton considers the process description as proprietary and confidential.

1. DESCRIPTION OF FACILTY OPERATIONS BY LOCATION

Coal Storage Dock

Coal is received in bulk via self-unloading Great Lakes freighters which utilize water spraying as an unloading dust suppressant as needed.

Coal is stored in two locations at the northeast area of the facility. See drawing W-9-o-150 for details.

The coal is transferred from the storage dock to the coal sizing and transfer building with a front end loader.

Coal Sizing and Transfer Building

Inside the sizing building, the coal is conveyed to a screening/mechanical sizing operation, which reduces the oversized coal and is operated as needed. The coal is then transferred to the Powerhouse via an underground conveyor belt. The coal sizing and transfer operation includes a dust collection system (Title V ROP). The entire operation is enclosed in a building.

Powerhouse

The Power House produces the plant steam, electricity and water utilities. Located in the building are:

- No. 6 boiler, coal fired (Title V ROP)
- Gas-fired boiler (Title V ROP)

Comfort cooling fans exhaust room air from the building.

Boiler Ash Handling and Storage

The bottom ash is transferred by water sluice as a wet slurry. The slurry is transferred via bucket conveyor to an indoor pile. During the conveying process, the ash de-waters. The ash is then transferred to an outdoor staging location for loading onto a barge where it is transported to a facility for approved re-use. Ash piles are sprayed with water as needed for dust suppression. A small amount of bottom ash may be trucked from the facility to a local business for approved re-use.

Fly ash is collected in a baghouse (Title V ROP), then transferred to a storage silo. The ash is wetted with water and then transferred to an outdoor staging location for loading onto a barge where it is transported to a facility for approved re-use. Ash piles are sprayed with water as needed for dust suppression. Flay ash may also be transported to the local landfill for disposal or other approved re-use.

Shop Buildings

The shop building is used as a maintenance work area and equipment storage. There are comfort cooling fans that exhaust room air from the maintenance welding shop.

Sand blasting occurs indoors in a booth in the Mag building.

Pan House

The Pan House operation consists of brine evaporation with resultant production of sodium chloride salt crystals. The entire process is wet. Salt crystals exit this process in slurry form to the Filter Building. Comfort cooling fans exhaust room air from the building.

Filter Building

The Filter Building encloses the salt crystal drying operations. Wet salt crystals enter the filter dryers and exit with a low moisture content. The dry salt is mechanically conveyed to the adjacent Bin Building. Dust generated by the conveying equipment is controlled by a dust collection system (Title V ROP).

Comfort cooling fans exhaust room air from the building.

Bin House

The Bin House building contains wet process equipment, dry salt storage, and conveying equipment.

A comfort cooling fan exhausts room air from the building.

Warehouse No. 1

The warehouse is used for storage of finished packaged products and as much as 1,500 tons of dry bulk salt. Bulk salt is transported from the pile to a bucket elevator by a front-end loader. The bulk salt storage is totally enclosed by the building structure.

Warehouse No. 2

This warehouse is used for storage of finished packaged products and production of packaged goods. The salt dust generated by the block production system is controlled by a dust collection system (Title V ROP).

Warehouse No. 3

This building is used exclusively for storage of finished packaged products and for loading of truck trailers with palletized or containerized finished products.

Dry Salt Warehouse

The bulk of this building is used for storage of paper packaging containers and packaged finished products. A small area is used for offices, laboratory, etc.

Mill Building

The Mill Building is a six-story structure which encloses the dry salt screening, compacting, processing, warehousing and packaging operations. There are many mechanical conveying operations in this building such as bucket elevators, screw conveyors and belt conveyors. The evaporated salt crystals are separated into several different screening fractions. Some of the salt is packaged directly after screening while some is processed into compacted salt products.

There are four dust collection systems in the Mill Building to control process generated dust (Title V ROP).

Located in the Mill Building is a waste compacting system which utilizes pneumatic conveying of waste paper.

Bulk salt is loaded into trucks by gravity from the Mill Building utilizing choked flow systems.

Magnesia Building

The Magnesia Building serves as a salt product storage area, packaging material storage area, and paint area where coatings are brushed onto equipment.

Plant Roadways and Parking Lots

The plant has roughly four-fifths of a mile of gravel roadway and 3-3/4 acres of paved parking and roadway areas.

2. OWNER/OPERATOR

Morton Salt, Inc.
444 Lake Street
Chicago, IL 60606

3. MAP AND DIAGRAM OF THE FACILITY
MORTON SALT DRAWING W-9-o-150-2 AND W-90-2000

4. THE SUMMATION OF THE FOLLOWING SOURCES CONSTITUTES THE PLANT POTENTIAL FOR FUGITIVE DUST EMISSIONS

1) **COAL FREIGHTER UNLOADING ONTO STORAGE DOCK**
***Maintenance/Control Plan*:** Water spray is utilized when necessary to keep the coal wet during the unloading process.

2) **COAL TRANSFER FROM DOCK TO SIZING BUILDING**
***Maintenance/Control Plan*:** Fugitive dust is controlled by inherent moisture in the coal.

3) **COAL STORAGE AREA WIND EROSION**
***Maintenance/Control Plan*:** Fugitive dust is controlled by inherent moisture in the coal and by forming a flat/level top on the coal storage areas, and wetted as necessary to control fugitive dust.

4) **ASH LOADING**
Maintenance/Control Plan: Fly ash is loaded indoors from a bin to trucks using water as needed to wet the ash and a height limiting spout and dust collection system, , and wetted as necessary to control fugitive dust.

5) **ASH STORAGE AREA WIND EROSION**
***Maintenance/Control Plan*:** Bottom ash is stored outdoors and sprayed with water as needed for dust suppression.

6) **SAND BLASTING**
***Maintenance/Control Plan*:** A dust collector is used to collect dust in this indoor operation.

7) **UNPAVED ROADS AND PARKING AREAS**
***Maintenance/Control Plan*:** The plant unpaved roadways and parking areas will have a brine solution applied at the rate of approximately 2,000 gallons per mile. The applications are made by a contractor approximately during the time fram of May through September as necessary.

8) **VENT FAN EXHAUSTS FROM BUILDINGS**
***Maintenance/Control Plan*:** Comfort cooling fans exhaust room air from buildings.

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Map of fugitive sources at plant site