

Application Type Renewal  
Facility Type Storm Water  
Major / Minor Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL INDUSTRIAL WASTE (IW)  
AND IW STORMWATER**

Application No. PA0244635  
APS ID 1120722  
Authorization ID 1497971

**Applicant and Facility Information**

Applicant Name	<u>Morton Salt, Inc.</u>	Facility Name	<u>Morton Salt Fairless Hills Facility</u>
Applicant Address	<u>444 West Lake Street, Suite 2900</u> <u>Chicago, IL 60606-0090</u>	Facility Address	<u>1121 Bordentown Road</u> <u>Morrisville, PA 19067-6702</u>
Applicant Contact	<u>Stephen Messier</u>	Facility Contact	<u>Stephen Messier</u>
Applicant Phone	<u>(312) 350-7266</u>	Facility Phone	<u>(312) 350-7266</u>
Client ID	<u>315117</u>	Site ID	<u>712407</u>
SIC Code	<u>5169</u>	Municipality	<u>Falls Township</u>
SIC Description	<u>Wholesale Trade - Chemicals And Allied Products, Nec</u>	County	<u>Bucks</u>
Date Application Received	<u>August 1, 2024</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>Permit Renewal.</u>		

**Summary of Review**

Morton Salt, Inc. (Morton) has submitted an individual NPDES permit application to discharge stormwater from Fairless Hills bulk salt storage facility into Delaware River via detention basin. The stormwater discharge from salt storage facility was covered under NPDES General Permit PAR800157 issued in October 2008. It was determined that due to the bulk storage of salt and operations, this facility would be better served with Individual NPDES permit rather than General Permit (PAG03) for stormwater discharge associated with industrial activities. Therefore, individual NPDES permit PA0244635 was issued to previous owner, International Salt Company. Later, the permit was transferred to Morton Salt, Inc.

Morton Salt currently leases approximately 13.7 acres from Waste Management Inc. for its existing salt storage operations. Current operations at Morton's Fairless Hills Facility consists of the offloading salt products from marine vessels, bulk salt storage, and salt blending. Salt is received at the site via ships and is distributed from the site by truck to municipalities, independent contractors, and Morton's nearby salt packaging facility.

The discharge of stormwater from existing site activity is covered under Individual Permit for stormwater discharges associated with industrial activity. The type of constituent that are expected to be present in the discharge are the same as that would be expected from the site eligible for facility's previous General Permit with Appendix K (Salt Storage and Distribution Piles). Stormwater from the site is being discharged into Delaware River through Outfall 001.

**Facility Operations:**

Salt arrives at the facility via marine vessels and is off-loaded using clamshell grabs or buckets. Salt from ships is loaded into hoppers located on dock, which load trucks with salt product. Salt is then transported to various salt piles, which are stored in the western and eastern portions of the facility. A portion of stockpiled salt is transported by truck to Morton's nearby Fairless

Approve	Deny	Signatures	Date
X		<i>Ketan Thaker</i> Ketan Thaker / Project Manager	1/23/2025
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	01/23/2025

### Summary of Review

Hills Packaging plant for packaging and distribution. The road salt piles are located on asphalt pads to provide a clean surface for the salt and to minimize contact stormwater from entering groundwater. The piles are constructed and covered after each shipment by marine vessel. The number of days required to off-load a ship is dependent on the size of the vessel. Off-loading of the largest cargo (70,000 tons) could require up to 7 working days. Following build-out of the pile, 2-3 working days are typically required to cover the stockpile. However, up to 7 days may be necessary to account for unsafe weather conditions (e.g. high winds) that may delay the cover installation or when covering activities overlap with weekends, holidays etc. As such 14 days may be required from the start of off-loading a ship to when the cover system is installed. There may be times when multiple ship off-loading events may overlap (i.e. back-to-back) resulting in the stockpile potentially being uncovered for longer period of time then noted above. Otherwise, the covered pile only be maintained open along the working face, as necessary, to remove salt or in preparation to replenish the pile. A portion of the road salt is transported to the blended salt pile (Pile 3), where it is mixed with an additive. The additive is composed of magnesium chloride and distillers condensed soluble, molasses, or corn syrup, which is stored temporarily in a frac tank located on site until blending operations are completed. The road salt and blended salt products are distributed from stockpiles via truck to contractors and municipalities.

#### Stormwater Management System:

The existing stormwater management system at the site consists of a series of swales and a stormwater detention/sedimentation basin. The drainage area for outfall 001 is 13.7 acres and includes salt stockpiles, haul roads, truck scales, drainage swales and detention basin. Stormwater is routed through the stormwater management system and is discharged via Outfall 001. Four riprap swales located to the north and south of stockpiles that are designed to capture stormwater runoff from the pads and stockpiles and transport the stormwater to the detention basin. The riprap swales were designed to control the flow velocity to promote the settling of suspended sediment to the bottom of swale. The detention basin consists of an earthen base lined with an impervious membrane, a riprap channel, and vegetated banks to minimize erosion and absorb pollutants. The basin is designed to settle suspended solids present in stormwater and regulate the peak discharge rate of stormwater via engineered outlet control structure. The detention basin discharges into a riprap channel in the southwestern portion of the site that is also lined with an impervious membrane. The channel ultimately discharges to Delaware River.

The stormwater sampling results and eDMRs show high concentrations of TDS, TSS, BOD5, Phosphorus and Chlorides in the effluent. Morton must address this issue by additional BMPs. This permit renewal includes monthly monitoring for TDS from November through April. Effluent limits for all the parameters will remain the same except for Phosphorus for this permit renewal and are based on 25 Pa Code 95.2, 95.10 and General Permit PAG-03, Appendix K for Salt Storage and Distribution. We have changed the effluent limit of 2.0 mg/l with monitor/report for Phosphorus for this permit renewal. It is noted that large seagull population perches on stockpiles due to landfill nearby. It is believed that bird waste may have contributed to elevated BOD5 & Phosphorus concentrations in stormwater discharges. Permittee has submitted Corrective Action reports in response to frequent exceedances to Benchmark Vales for BOD5, Phosphorus, TSS and Chlorides and is committed to implementing and adjusting BMPs to make improvement at facility.

Following are effluent limits:

PARAMETERS	EFFLUENT LIMITS (MG/L)	BASIS
pH (S.U.)	6.0 to 9.0 SU	25 Pa Code 95.2
BOD5	Report	BPJ
Total Suspended Solids	Report	Appendix K of PAG-03 (Salt Facility)
Total Dissolved Solids	Report	Appendix K of PAG-03 (Salt Facility)
Osmotic Pressure (mOs/kg)	Report	BPJ
Oil and Grease	15.0	25 Pa Code 95.2
Nitrate-Nitrite as N	Report	BPJ
Total Nitrogen	Report	Appendix K of PAG-03 (Salt Facility)
Total Phosphorus	Report	Appendix K of PAG-03 (Salt Facility)
Free Cyanide	Report	BPJ
Chloride	Report	Appendix K of PAG-03 (Salt Facility)

Act-14 Notifications to Falls Township and to Bucks County Planning Commission on July 22, 2024.

### Summary of Review

#### Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0</u>
Latitude	<u>40° 8' 5.64"</u>	Longitude	<u>-74° 45' 23.19"</u>
Quad Name	<u></u>	Quad Code	<u></u>
Wastewater Description: <u>Stormwater</u>			

Receiving Waters	<u>Delaware River (WWF, MF)</u>	Stream Code	<u>00002</u>
NHD Com ID	<u>25486816</u>	RMI	<u>126.3</u>
Drainage Area	<u></u>	Yield (cfs/mi <sup>2</sup> )	<u></u>
Q <sub>7-10</sub> Flow (cfs)	<u></u>	Q <sub>7-10</sub> Basis	<u></u>
Elevation (ft)	<u></u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>2-E</u>	Chapter 93 Class.	<u>WWF, MF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>

Assessment Status	<u>Impaired</u>
Cause(s) of Impairment	<u>POLYCHLORINATED BIPHENYLS (PCBS),</u>
Source(s) of Impairment	<u>SOURCE UNKNOWN</u>
TMDL Status	<u>Final</u>
Name	<u>Delaware River Estuary PCB TMDLs</u>

Background/Ambient Data	Data Source
pH (SU)	<u></u>
Temperature (°F)	<u></u>
Hardness (mg/L)	<u></u>
Other:	<u></u>

Nearest Downstream Public Water Supply Intake	<u></u>
PWS Waters	<u></u>
PWS RMI	<u></u>
Flow at Intake (cfs)	<u></u>
Distance from Outfall (mi)	<u></u>

Compliance History

DMR Data for Outfall 001 (from December 1, 2023 to November 30, 2024)

Parameter	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24	JAN-24	DEC-23
Flow (GPD) Average Quarterly			55399			49464			77163			122670
pH (S.U.) Instantaneous Minimum			7.85			6.78			7.05			7.16
pH (S.U.) Instantaneous Maximum			7.85			6.78			7.05			7.16
BOD5 (lbs/day) Average Quarterly			19.9			8.3			101			359.1
BOD5 (lbs/day) Daily Maximum			19.9			8.3			101			359.1
BOD5 (mg/L) Average Quarterly			43			20			157			351
BOD5 (mg/L) Daily Maximum			43			20			157			351
TSS (lbs/day) Average Quarterly			378.9			12.4			109.4			226.1
TSS (lbs/day) Daily Maximum			378.9			12.4			109.4			226.1
TSS (mg/L) Average Quarterly			820			30			170			221
TSS (mg/L) Daily Maximum			820			30			170			221
Total Dissolved Solids (lbs/day) Average Monthly	84672		33636			2236			1738	19864	62432	39899
Total Dissolved Solids (lbs/day) Daily Maximum	84672		33636			2236			1738	19864	62432	39899
Total Dissolved Solids (mg/L) Average Monthly	52900		72800			5420			2700	92600	16100	39000
Total Dissolved Solids (mg/L) Daily Maximum	52900		72800			5420			2700	92600	16100	39000

**NPDES Permit Fact Sheet**  
**Morton Salt Fairless Hills Facility**

**NPDES Permit No. PA0244635**

Osmotic Pressure (mOs/kg) Average Quarterly			3030			190			822			1550
Osmotic Pressure (mOs/kg) Daily Maximum			3030			190			822			1550
Oil and Grease (mg/L) Average Quarterly			5.40			< 5			< 5			< 5.1
Oil and Grease (mg/L) Daily Maximum			5.40			< 5			< 5			< 5.1
Nitrate-Nitrite (lbs/day) Average Quarterly			0.522			0.182			0.017			0.573
Nitrate-Nitrite (lbs/day) Daily Maximum			0.522			0.182			0.017			0.573
Nitrate-Nitrite (mg/L) Average Quarterly			1.130			0.44			0.026			0.560
Nitrate-Nitrite (mg/L) Daily Maximum			1.130			0.44			0.026			0.560
TN (lbs/day) Average Quarterly			11.74			1.43			4.4			48.29
Total Nitrogen (lbs/day) Daily Maximum			11.74			1.43			4.4			48.29
TN (mg/L) Average Quarterly			25.40			3.47			6.84			47.2
TN (mg/L) Daily Maximum			25.40			3.47			6.84			47.2
Total Phosphorus (lbs/day) Average Quarterly			< 0.462			0.173			< 0.644			1.647
Total Phosphorus (lbs/day) Daily Maximum			< 0.462			0.173			< 0.644			1.647
Total Phosphorus (mg/L) Average Quarterly			< 1.00			0.42			< 1.0			1.61
Total Phosphorus (mg/L) Daily Maximum			< 1.00			0.42			< 1.0			1.61
Free Cyanide (mg/L) Average Quarterly			0.114			0.036			0.031			0.035
Free Cyanide (mg/L) Daily Maximum			0.114			0.036			0.031			0.035
Chloride (lbs/day) Average Quarterly			23933			1353			12292			27111

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Chloride (lbs/day) Daily Maximum			23933			1353			12292			27111
Chloride (mg/L) Average Quarterly			51800			3280			19100			26500
Chloride (mg/L) Daily Maximum			51800			3280			19100			26500

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

**Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Quarterly	Daily Maximum	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
Flow (GPD)	Report	XXX	XXX	XXX	XXX	XXX	1/quarter	Calculation
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/quarter	Grab
BOD5	Report	Report	XXX	Report	Report	XXX	1/quarter	Grab
TSS	Report	Report	XXX	Report	Report	XXX	1/quarter	Grab
Total Dissolved Solids Sep 1 - Mar 31, Jun 1 - 30	Report Avg Mo	Report	XXX	Report Avg Mo	Report	XXX	See Permit	Grab
Osmotic Pressure (mOs/kg)	XXX	XXX	XXX	Report	Report	XXX	1/quarter	Grab
Oil and Grease	XXX	XXX	XXX	15	30	XXX	1/quarter	Grab
Nitrate-Nitrite	Report	Report	XXX	Report	Report	XXX	1/quarter	Grab
Total Nitrogen	Report	Report	XXX	Report	Report	XXX	1/quarter	Calculation
Total Phosphorus	Report	Report	XXX	Report	Report	XXX	1/quarter	Grab
Free Cyanide	XXX	XXX	XXX	Report	Report	XXX	1/quarter	Grab
Chloride	Report	Report	XXX	Report	Report	XXX	1/quarter	Grab