

Summary of Comments with Michigan Department of Environmental Quality (MDEQ)
Air Quality Division (AQD) Responses
Detroit Salt Company, L.C. (Detroit Salt)
Permit to Install No. 318-98A
June 2, 2017

Comment: *Commenters are concerned about fugitive dust from Detroit Salt.*

AQD Response: Detroit Salt is an existing facility with an established Nuisance Management Plan (NMP) for Fugitive Dust. The AQD has not observed visible emissions from the facility that exceed the permitted limits. The AQD also has not received complaints of excess visible emissions related to Detroit Salt in the past several years. Visible emissions that comply with the permit limits indicate Detroit Salt's current fugitive dust management practices are adequately controlling the fugitive emissions. The AQD will inspect the facility and evaluate compliance with the NMP and the visible emission limits when the modifications to the facility are complete.

Comment: *Fugitive dust from Detroit Salt's roadways and plant yard will be a significant source of Particulate Matter equal to or less than 10 microns in diameter (PM10) and Particulate Matter equal to or less than 2.5 microns in diameter (PM2.5) pollution (approximately 2.23 tons per year of PM10 and 0.55 tons per year of PM2.5). Therefore, it is important that the NMP for Fugitive Dust ensure the 90 percent control efficiency for street sweeping used in the emission estimates is achieved, including requiring that the street sweeper to be used is certified by the South Coast Air Quality Management District. In addition, the NMP should specify the frequency of street sweeping based on the anticipated truck traffic and the NMP should require all records of street sweeping be submitted to the MDEQ.*

The NMP should require Detroit Salt to use dust control compounds that have been specifically approved by the MDEQ and specify how frequently Detroit Salt will apply dust suppressant. Studies suggest dust suppressant must be applied at least once every month.

AQD Response: The NMP requires dust suppressant to be applied twice per month or more frequently if needed. The NMP also requires street sweeping between dust suppressant applications. The street sweeping records are required to be kept at the facility and made available to the AQD upon request; there is no regulatory reason to have the records submitted to the AQD in the absence of fugitive dust problems.

Comment: *The NMP states that Detroit Salt "shall pave the road between the entrance and the scale house." However, the draft permit states Detroit Salt "shall pave the plant roadways." The NMP should be updated to agree with the other sections of the draft permit.*

AQD Response: The NMP, section I.B, has been updated to say "Applicant shall pave **the plant roadways.**"

Comment: *Detroit Salt's estimate of the salt storage pile fugitive emissions may be too low. The assumption that a crust forms over the storage pile due to water being retained by the salt is questionable because the pile is active, with material constantly being added and removed.*

The commenters request that Detroit Salt be required to cover all salt piles or be required to install, operate, and maintain a wet suppression system to control fugitive dust from the salt storage pile.

AQD Response: The emission estimates for the salt storage pile are based on United States Environmental Protection Agency (USEPA) emission factors for aggregate. Rock salt is inherently less dusty than aggregate because it is hygroscopic, meaning that it absorbs water from the environment. Aggregate is not hygroscopic. Rock salt absorbs rain water that falls on it and also absorbs humidity from the air. The water absorbed by the salt makes the salt less dusty than aggregate stored in similar conditions. Due to the hygroscopic nature of salt compared to aggregate, the fugitive emissions from the salt storage pile are likely over estimated.

There have not been excessive visible emissions from the existing salt storage pile, which indicates Detroit Salt's assertion that the salt is less dusty than other materials is valid and that the fugitive emissions from the salt storage pile are low. The lack of excessive visible emissions from the salt storage pile also indicates that covering the pile or using a wet suppression system is not needed.

Comment: *The use of a truck wheel washing station, and submittal of records regarding use and maintenance of the station, should be specifically required by the NMP.*

AQD Response: Truck wheel washing stations are best suited for removing mud and dirt from truck wheels before the trucks leave a facility. The roadways at Detroit Salt are paved, so there will be little or no mud or dirt on the truck wheels. In addition, the pieces of rock salt are much larger than dirt and can be easily removed from the trucks without generating dust. There have not been excessive visible emissions from trucks leaving the facility in the past several years. This indicates Detroit Salt's current practice of removing spilled rock salt from the trucks and using the wheel wash station as needed adequately control the fugitive dust emissions from the trucks.

The palletized rock salt trucks are the only increase in truck traffic allowed by the revised permit. These trucks should have no spilled rock salt and no more mud or dirt than the rock salt transportation trucks, so Detroit Salt's current practice should adequately control fugitive dust emissions from the palletized rock salt trucks.

Comment: *The NMP requirement for conveyor transfer points to be 180° enclosed does not align with the permit conditions, which requires Detroit Salt to "ensure that all above ground conveyor belts and stackers are 180° enclosed and are equipped with belt wipers and hoppers of proper size."*

AQD Response: The NMP, section IV.A, has been updated to say "**All above ground conveyor belts and stackers shall be 180° enclosed and be equipped with belt wipers and hoppers of proper size to prevent excessive spills.**"

Comment: *The commenters requests that the permit and the NMP require conveyor belts and stackers to be fully enclosed, which the commenters believe is a more accurate description of the method of fugitive dust control than “180 degree enclosed.”*

AQD Response: The conveyors and stackers have covers over the top half of the conveyor to prevent the salt on the conveyor from being directly exposed to the wind. A fully enclosed conveyor would have a cover over both the top and the bottom of the conveyor. There have not been excessive visible emissions from the existing conveyors and stackers. This indicates the 180° degree covers are adequately controlling fugitive emissions from the conveyors and stackers.

Comment: *The commenters request that Detroit Salt be required to conduct on-site particulate matter monitoring.*

AQD Response: Detroit Salt is a small, true minor source of air emissions. Given the low level of expected emissions, particulate monitoring is not warranted. Detroit Salt is located near other industrial facilities as well as numerous public roadways, including I-75, that are sources of particulate matter emissions. If monitoring were conducted, it would be of limited use in determining the emissions from Detroit Salt because the monitor could not determine where the emissions are coming from.

Comment: *The commenters request that Detroit Salt be required to monitor wind speeds and develop and institute specific measures to control fugitive dust emissions during times of high wind speeds.*

AQD Response: The dust control measures already implemented by Detroit Salt are expected to adequately control the emissions, even during times of high wind speeds, since the salt is not inherently dusty. Detroit Salt must comply with the visible emission limits in the permit at all times.

Comment: *The permit should specify that USEPA Method 9 be used in conducting the visible emissions evaluation.*

AQD Response: The draft permit specified USEPA Method 9 for the bagging plant but not the rock salt plant. **The permit has been modified to require USEPA Method 9 for FG-ROCKSALTPLANT.**
