

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF THE DIRECTOR

)
In the matter of administrative proceedings)
involving **MORTON INTERNATIONAL, INC., MORTON**)
SALT DIVISION, a corporation organized under)
the laws of the State of Michigan and doing)
business at 10335 Flora Street in the City)
of Detroit, County of Wayne, State of)
Michigan.)
_____)

SIP No. 26-1993
Revised: 9/9/94

STIPULATION FOR ENTRY OF FINAL ORDER
BY
CONSENT

This proceeding results from provisions of the Federal Clean Air Act ("CAA"), 42 U.S.C. Section 7401 et seq., as amended by the Clean Air Act Amendments of 1990, P.L. No. 101-549, 104 Stat. 2399 (Nov. 15, 1990), that designate a portion of Wayne County as non-attainment for PM-10 (particulate matter less than 10 micrometers) and require a State Implementation Plan ("SIP"), based on legally enforceable control measures, that provides for a demonstration of attainment and maintenance of the primary National Ambient Air Quality Standard ("NAAQS") for PM-10 in Wayne County. Further, pursuant to Section 15 of the Michigan Air Pollution Act, 1965 PA 348, as amended ("Act 348"), companies in the standard industrial classifications listed in 15(1), and which are located in areas listed in Table 36 of R 336.1371 of the Michigan administrative code, are required to develop and implement an approved fugitive dust control operating program and to have the program embodied in a legally enforceable order or as part of an approved permit to install or operate.

Morton International, Inc. ("Company"), owns and operates the Morton Salt Division ("Plant"), a salt processing facility, located at 10335 Flora Street, City of Detroit, County of Wayne, State of Michigan. The Michigan Department of Natural Resources ("MDNR") alleges that the Plant is a significant source of fugitive dust emissions which contribute to the non-attainment problem. Further, the requirements for the control of fugitive dust, set forth in Section 15 of Act 348, apply to the Plant.

The Company and the MDNR stipulate as follows:

1. The Air Pollution Act, 1965 PA 348, as amended, ("Act 348"), MCL 336.11 et seq; MSA 14.58(1) et seq is an act to control air pollution in this state.
2. The Director of the MDNR ("Director") is authorized pursuant to Section 5 of Act 348 to administer and enforce all provisions of Act 348.
3. The Director has delegated authority to the Air Quality Division ("AQD Chief") to enter into the Consent Order.
4. The resolution of this matter by a Consent Order pursuant to Section 16c of Act 348 is proper and acceptable.
5. This Consent Order becomes effective on the date of execution ("effective date of this Consent Order") by the AQD Chief.
6. The emissions of fugitive dust from the Plant are subject to the opacity limitations and prohibitions contained in Sections 15 and 15a of Act 348. The particulate matter and fugitive dust emissions from the Plant must not cause or contribute to a violation of the PM-10 NAAQS. Further, the CAA and Act 348 require the application of all reasonably available control measures ("RACM") for the control of PM-10 emissions.

7. This Consent Order is designed to ensure attainment and maintenance of the PM-10 NAAQS, compliance with Sections 15 and 15a of Act 348, and compliance with the RACM requirements of the CAA and Act 348.

COMPLIANCE PROGRAM

8. On and after the effective date of this Consent Order, the Company shall fully comply with the provisions and requirements of the fugitive dust control operating program and Recordkeeping for Fugitive Dust Sources Addendum, which is attached as Exhibit A, incorporated by reference, and made an enforceable part of this Consent Order.

RECORDKEEPING AND REPORTING

9. On and after the effective date of this Consent Order, the Company shall keep records as specified in Exhibit A.

10. On and after the effective date of this Consent Order, the records required pursuant to this Consent Order shall be kept on file at the Company for a period of at least two (2) years, and shall be made available to MDNR upon written or verbal request.

11. Beginning with the calendar quarter starting after the effective date of this Consent Order, and quarterly thereafter, the Company shall submit to MDNR a report identifying each day in which any emission limit, operational requirement, or recordkeeping requirement, as specified in Exhibit A, was not met. This report shall, for each instance, explain the reason that the emission limit, operational requirement, or recordkeeping requirement was not met, the duration of the event, the remedial action taken, and a description of the steps which were taken to prevent a recurrence. These reports shall be submitted

within 30 days following the end of the calendar quarter in which the data were collected.

GENERAL PROVISIONS

12. Upon entry, this Consent Order, along with other supporting documentation required by the United States Environmental Protection Agency ("U.S.EPA"), shall be submitted to the U.S.EPA for approval as a revision to the Michigan SIP in accordance with Part D, Section 171 et seq., of the Federal Clean Air Act, as amended by Section 105 of the Clean Air Act Amendments of 1990. This Consent Order shall become effective immediately upon entry, except that this Consent Order shall have no effect on the federally-approved SIP unless and until the submitted SIP revision request is formally approved by the U.S.EPA.

13. Upon entry of this Consent Order, the Company may change it's processes, modify the fugitive dust control program contained in Exhibit A, or modify the particulate emission control program contained in Exhibit B ("Control Programs"), in accordance with the following:

A. Process Change

(1) The Company may change it's operations or processes which are sources of particulate and fugitive dust provided all of the following conditions are met:

- (a) The provisions of the Control Programs continue to apply to the subject operation or process;
- (b) The change does not result in an increase in the level of fugitive dust or particulate emissions;
- (c) The change is approved.

- (2) The Company shall submit to MDNR a written description of the proposed change and how it meets the requirements of 13(A)(1).
- (3) The MDNR shall approve or disapprove the proposed change, in writing, within 45 days from receiving a proposed change which meets the requirements of 13(A)(1).
- (4) Should the MDNR disapprove the proposed change, the disapproval must describe the specific reasons for the decision and must be forwarded to the Company.

B. Control Program Revision

- (1) The Company may revise the Control Programs provided both of the following conditions are met:
 - (a) The Company demonstrates*, in writing, that the proposed revision does not result in an increase in the level of fugitive dust or particulate emissions and submits the demonstration to the MDNR for approval.
 - (b) The revision is approved.
- (2) The MDNR shall approve or disapprove the proposed revision, in writing, within 45 days from receiving a proposed revision using an applicable U.S.EPA approved method to demonstrate the proposed revision meets the requirements of 13(B)(1).
- (3) Should the MDNR disapprove the proposed revision, the disapproval must describe the specific reasons for the decision and must be forwarded to the Company.

C. U.S.EPA Notification

Upon approval of a change pursuant to subsection A above, or a substitution of a control measure pursuant to subsection B above, MDNR shall notify U.S.EPA, in writing, of the revised provisions which are enforceable for the facility.

D. Minor Modification

Upon adoption by the MDNR, and upon approval by U.S.EPA, of operating permit rules to implement the Permit Modification provisions recited at 40 CFR 70.7 (e), the Company may modify a fugitive dust or particulate emission source referred to in this Consent Order according to the terms and conditions contained in the operating permit rules.

E. Minor Modification Approval

Upon MDNR approval of a minor modification pursuant to subsection D above, the MDNR shall submit the approved minor modification to U.S.EPA as a proposed revision to the Michigan SIP.

F. Other Applicable Requirements

Any process change, control program revision, or minor modification made pursuant to this Paragraph does not affect the company's obligation to obtain a permit to install or operate required by Federal law or regulation, or contained in Part 2 of the Air Pollution Control ("APC") Rules and any other applicable requirement contained in the APC Rules or Act 348.

- * - Demonstrations made pursuant to 13(B)(1)(a) involving chemical dust suppressant applications on unpaved roads shall be made using only petroleum resins, asphalt emulsions, or acrylic cements unless otherwise explicitly provided for by the applicable U.S.EPA approved SIP or U.S.EPA approved method.

14. This abatement program is not a variance subject to the 12 month limitation specified in Section 22 of the Air Pollution Act, being MCLA 336.32.

15. The provisions of this Consent Order shall be binding on the parties to this action, their officers, servants, employees, and attorneys, and on those persons in active concert or participation with them who receive actual notice of this Consent Order. In the event Morton International, Inc. sells or transfers the Morton Salt Division, it shall advise any purchaser or transferee of the existence of this Consent Order in connection with such sale or transfer. Within 30 calendar days, Morton International, Inc. shall also notify MDNR Staff, in writing of such sale or transfer, the identity and address of any purchaser or transferee, and confirm the fact that notice of this Consent Order has been given to the purchaser or transferee. The purchaser must provide written agreement, to the Company, to assume the compliance responsibilities of the Consent Order and provide a copy of the agreement to the MDNR Staff.

16. Pursuant to the requirements in Section h of Act 348, the public was notified of a 30-day public comment period on this Consent Order which began on March 1, 1993, and a public hearing on this Consent Order which was held on March 30, 1993.

17. Section 16e of Act 348 may serve as a source of authority but not a limitation under this Consent Order may be enforced. Further, the Michigan

Environmental Protection Act ("MEPA"), 1970 PA 127, MCLA 691.1201 et seq; MSA 14.528(201) et seq; and all other applicable laws may be used to enforce this Consent Order.

I, the undersigned, who is signing this Stipulation and Order for the Company, certify that I am fully authorized by the Company to enter into this Consent Order and to execute and legally bind the Company to it.

Approved as to Form and Content:

James F. Fox

MORTON INTERNATIONAL, INC.
MORTON SALT DIVISION

By: JAMES F. FOX U.P. LEGAL AFFAIRS -SALT GROUP

Dated: SEP. 27, 1994

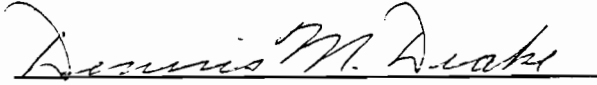
The above signatory subscribed and sworn to before me this 27 day of September, 1994.



Evelyn M. Baader
Notary Public

Approved as to Content:

Approved as to Form:





Dennis M. Drake, Acting Chief
AIR QUALITY DIVISION
DEPARTMENT OF NATURAL RESOURCES

Michael Leffler
Assistant Attorney General, In Charge
NATURAL RESOURCES DIVISION
DEPARTMENT OF ATTORNEY GENERAL

Dated: 10/12/94

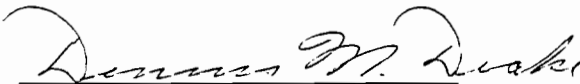
Dated: 10/11/94

FINAL ORDER

The Chief of the Air Quality Division having had opportunity to review the Consent Order and having been delegated authority to enter into Consent Orders by the Director of the Michigan Department of Natural Resources pursuant to the provisions of the Air Pollution Control Act;

IT IS ORDERED that this Consent Order is approved and shall be entered in the record of the MDNR as a Final Order.

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

By: 
Dennis M. Drake, Acting Chief
Air Quality Division

Dated: 10/12/94

EXHIBIT A
FUGITIVE DUST CONTROL PLAN
MORTON INTERNATIONAL, INCORPORATED

1. Facility Name and Address:

Morton International, Inc.
Morton Salt Division
10335 Flora Street
Detroit, Michigan 48209

2. Name and Address of Responsible Person/s:

Mr. Gary Lloyd
Morton Salt Division
10335 Flora Street
Detroit, Michigan 48209

Mr. Lance Kelly
Morton Salt Division
100 N. Riverside Plaza
Chicago, Illinois 60606

I. Summary of Source Descriptions:

A. Identification of Fugitive Dust Sources

1. Paved Surfaces - Out of a total of 221,123 square feet of paved area, 142,132 square feet are used for truck and front-end loader traffic as well as for parking employee vehicles. The balance of the area, 78,991 square feet, is the stockpile pad.

2. Transfer Points - These points throughout the facility involve various conveyor belts. The belts were assigned individual numbers several years ago. This method of designation continues currently. The conveyor belt network provides the flexibility to ship salt in bulk form or convey the product to packaging operations within the facility.

II. Process Flow Description and Control Measures:

A. Approximately 220,000 tons of rock salt is delivered to the Morton Salt location on the Rouge River via barge from Canadian Salt's mine in Windsor, Ontario, Canada. The product is unloaded with a crane and conveyed to either an asphalt storage pad or to four storage silos.

1. Barge unloading - A crane is utilized to move the salt from the barge to a hopper. A 5 cubic yard clamshell bucket is used in this process. The crane operator releases the salt 18 inches above the discharge hopper during the unloading operation. This is an improvement of 50%, as the previous height was 36", and virtually

eliminates fugitive dust. The rock salt is then conveyed to one of two points, the pad or the silos.

2. Asphalt Pad - Approximately 170,000 tons of salt per year is conveyed from barge unloading on conveyor belt #S1 to a stacker conveyor, #S2, which transports the material onto the storage pad. The discharge point of the stacker conveyor is 34 feet above the surface of the pad. Fugitive dust is controlled by limiting the drop height to less than five feet, and, by liquid anticaking application at the point of discharge on the stacker conveyor. The salt is then transferred from the stacker conveyor site with a front-end loader to the stockpile. (The stockpile is built upon an asphalt pad with an aggregate subbase. The entire surface was engineered, with Michigan Department of Natural Resources approval, and constructed in such a way that any stormwater runoff would flow away from the Rouge River and toward the warehouse area. The runoff flows to a manhole. The manhole sits on top of a concrete catch basin. This basin is approximately 7 feet deep and 5 feet in diameter. The runoff accumulated in the basin is left to evaporate or to be pumped out and disposed of in an authorized manner. Morton Salt is currently awaiting the approval to link the catch basin to the City of Detroit's combined sewer system.) Once entirely constructed, the stockpile is covered.

3. Storage Silos - The silos receive approximately 50,000 tons per year. This salt is transported to the silos on conveyor belts #S1 and #S3-S10 (conveyor #S8 is actually an enclosed bucket elevator). The product is then removed from the silos through two independent conveying systems:

a. 30,000 tons per year is removed from the silos through conveyors #4, #5, #6, and #7 to a loading station for continuous feed into customer trucks. The truck loading station is a partially enclosed structure. Plastic drop curtains 8 feet in length have been installed on the north and south ends of this station. The curtains are sectionalized to prevent possible damage by vehicles. On the west end of this station Morton Salt will be installing 8 foot long permanent fiberglass panels. The east end is the outside wall of the truck loading station. The purpose of the curtains and fiberglass panels is to prevent wind from circulating through the station and allowing smaller particulates of salt to become airborne during the truck loading procedure.

b. 20,000 tons per year is removed from the silos through conveyors #4, #5, and #6 into an enclosed bucket elevator, over an enclosed vibrating screen, and onto conveyor belt #11 culminating at the packaging stations for bagging. Conveyors #15 through #18 are inside the packaging warehouse and are used for conveying bags of salt to the pelletizing operation. The package warehouse has one mandoor and three garage doors. There are no roof louvers or forced ventilation in the building. The

packaged/pelletized rock salt is loaded into customer trucks with forktrucks through the garage doors.

B. Conveyor Belts

1. All conveyors belts at the Morton Salt facility in Detroit are enclosed except two; belt #11, used to convey salt from the silo to the packaging stations, and #7, used to convey salt from the silo to the truck loading station. Plans are in place to enclose these remaining two conveyors in the near future.

III. Other Specific Dust Control Measures:

A. The paved area which experiences truck traffic encompasses 45,000 square feet. This area does, at times, retain dust that is deposited by vehicles entering and leaving the facility. The dust can become airborne on a windy day. Plans are in place to manually or mechanically sweep the area once a week during the ice control season (December 15th through March 15th) weather permitting. Sweeping is performed once every two months during the off-season (March 15th through December 15th). A yearly schedule for sweeping the area will be prepared every July 1st and will be subject to change only during inclement weather. Maximum vehicle speed has been posted for this area of 5 MPH.

B. Bulk truck loading during the ice control season occurs normally at the discharge point of the stacker conveyor (belt #S2). When a barge is not being unloaded, salt is loaded into trucks from the stockpile. The potential for fugitive dust during this procedure is minimized by limiting the drop height of salt from the front-end loader. The loader operator shall keep the machine's bucket a distance of no more than one foot above the top of the sides of the truck.

C. An inherent characteristic of sodium chloride is it's propensity to absorb moisture from surrounding air whenever the relative humidity exceeds 75%. At this point, the surface of the crystals dissolve slightly and become damp. When the relative humidity then drops below 75%, the salt surface dries out and causes the crystals to bind together in a hard surface crust. A recurring cycle of wetting and drying will induce a very dense crust formation.

The monthly climatological data for Detroit indicates that the average relative humidity fluctuates above and below 75%; thereby ensuring crust formation at the surface of all exposed salt crystals.

The moisture absorption and surface caking characteristics of rock salt appears to duplicate the qualities of commercially available chemical dust suppressants. Morton Salt Division contends that the calculated unpaved roadway area emissions are probably greater than actual emissions at our location because of the salt's inherent moisture absorption characteristics.

Any operations not addressed in this plan are adequately contained or controlled and do not require any corrective dust control measures.

ADDENDUM

RECORDKEEPING FOR FUGITIVE DUST SOURCES

REQUIRED RECORDS

UNPAVED ROADS/LOTS

1. DATE OF TREATMENT
2. CONTROL MEASURE USED
3. RESPONSIBLE PERSON'S INITIALS
4. NAME OF PRODUCT APPLIED
5. AMOUNT OF SOLUTION/WATER APPLIED
6. DILUTION RATIO
7. ROAD SEGMENT/LOT IDENTIFICATION

PAVED ROADS/LOTS

1. DATE OF TREATMENT
2. CONTROL MEASURE USED
3. RESPONSIBLE PERSON'S INITIALS
4. ROAD SEGMENT/LOT IDENTIFICATION

STORAGE PILES/MATERIAL
HANDLING

1. DATE OF TREATMENT
2. CONTROL MEASURE USED
3. RESPONSIBLE PERSON'S INITIALS
4. DILUTION RATIO (IF APPLICABLE)
5. AMOUNT OF DUST SUPPRESSANT/WATER APPLIED
6. IDENTIFICATION OF PILE/MATERIAL HANDLING OPERATION TREATED
7. EQUIPMENT USED

OPTIONAL RECORDS

WEATHER CONDITIONS

1. PRECIPITATION
2. TEMPERATURE
3. WIND DIRECTION AND VELOCITY