STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF THE DIRECTOR

In the matter of administrative proceedings involving the **UNITED STATES GYPSUM COMPANY,** a corporation organized under the laws of the State of Michigan and doing business at 2 Division Street in the City of River Rouge, County of Wayne, State of Michigan.	SIP No. 33-1993 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.

The United States Gypsum Company ("Company") owns and operates the U.S. Gypsum Plant ("Plant"), which is a gypsum products manufacturing facility, located at 2 Division Street, City of River Rouge, 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 the United States Gypsum Company sells or transfers the U. S. Gypsum Company, 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, the United States Gypsum Company 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 of Section 5h 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 which 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:

_____

UNITED STATES GYPSUM COMPANY

By: [illegible]

Dated: 9/23/94

The above signatory subscribed and sworn to before me this 23 day of September, 1994.

William H. Peacocke
Notary Public

WILLIAM H. PEACOCKE
Notary Public, Wayne County, MI
My Commission Expires Mar. 25, 1996

Approved as to Content:

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

Dated: 10/12/94

Approved as to Form:

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

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
UNITED STATES GYPSUM COMPANY

1. Facility Name and Address:

United States Gypsum Company
2 Division Street
River Rouge, Michigan 48218

2. Name and Address of Responsible Person:

L. R. Lorene, Plant Manager
U.S. Gypsum Company
2 Division Street
River Rouge, Michigan 48218

3. Summary of Source Descriptions and Control Measures:

A. Storage Piles:

1) Outside Rock Storage - Crude gypsum ore in a size range of 6" to dust is stored as an open pile. The gypsum ore is loaded onto the pile from a self-unloading ship conveyor and reclaimed by a front end payloader. The outside raw gypsum storage pile is continually exposed to the weather. Due to the nature of gypsum (i.e. hydroscopic) and that it is received with 1% free moisture, grab sample free moistures have averaged 3.5%. This naturally occurring moisture content has the same effect as would be expected from water spraying or tarping the pile.

2) Outside Slag Storage - Furnace blast slag in a size range of 1/2" to dust and a moisture content of 4 - 8% is stored outside the northwest corner of the Cement Board Plant. The slag is unloaded onto the pile from a self unloading dump truck and reclaimed by a front end loader. In addition, the outside slag storage pile is a very small pile located at the north end of the property enclosed on three (3) sides by the building proper.

B. Conveyor Loading Operations to Storage Piles:

1) Outside Rock Storage - Self-unloading Great Lakes freighters utilizing an open belt conveyor are used to load raw gypsum ore onto the outside rock storage pile at the average rate of 1300 tons per hour and operating a maximum 38 hours per year (maximum last six years). Loading of the outside rock storage pile utilizes a water spray system. Existing water sprays at the ship's conveyor discharge point will be used to apply water to the ore stream at all times during conveyor loading of the rock storage pile. Water will be sprayed onto the discharged ore stream at a minimum of 1 gpm. Water will be sprayed onto discharged ore stream at all times that ambient temperatures are above 32 degrees Fahrenheit.

2) Outside slag storage - Loading of the outside slag storage pile utilizes a minimum fall from the back end of the self-unloading semi-dump truck. Slag as it pours off the end of the truck falls four (4) feet maximum forming the pile.

C. Unloading Operations from Storage Piles:

1) Outside Rock Storage - A front end loader with a 7 1/2 cubic yard bucket is used to reclaim outside storage rock. The payloader transports single bucket loads of ore at an average rate of 110 tons per hour, a maximum 565 hours per year from the rock pile into the enclosed rock silo building. Once inside the enclosed silo, the ore is unloaded into a pile. In addition, the free moisture of the ore in the pile has been measured at 3.5%.

2) Outside Slag Storage - A front end loader with a 2 1/2 cubic yard bucket is used to reclaim outside slag. The payloader transports single bucket loads of slag and dumps the slag into a reclaim screw which carries the slag into an enclosed storage bin. The slag is reclaimed with a minimum drop height of two (2) feet. In addition, the free moisture of the ore pile has been measured between 4 to 8%. Slag is basically received daily and used daily, and only a small pile (40 x 40 x 10 ft.) is maintained onsite. Furthermore, use of a compliance method utilizing water sprays cannot be accomplished due to the critical effect the moisture content of the slag has on the manufacturing process. Should the slag moisture exceed 8% additional equipment would be required to dry the slag. This equipment is not available at this time.

D. Storage Pile Traffic Ways:

1) Outside Rock Storage - The haul road is unpaved and consists of gypsum rock laid as the road bed. An asphalt emulsion, petroleum resin, or acrylic cement will be sprayed to keep the haul road damp. U.S. Gypsum proposes to utilize a chemical, Soil-Cement as our dust suppressant. The application of the dust suppressant will follow manufacturer's recommendations for heavy traffic at one gallon for every 40 sq. ft. of roadway diluted with water at a 5 to 1 ratio. The dust suppressant will be initially applied using a spreader truck with spray bar one week prior to the beginning of the reclaim season and reapplied as conditions dictate. Again, since all reclaiming is done from January through April and the roadway at this time is normally wet and muddy, the reapplication frequency cannot be accurately determined; reapplication will be completed monthly unless conditions dictate otherwise. Application of the dust suppressant will be discontinued after all reclaiming is completed as no further traffic is expected. At this time, a final application of dust suppressant will be made.

2) Paved Roadways/Truck Marshaling Areas - The remaining traffic ways at the U.S. Gypsum facility are all paved asphalt roads. A Clark-American 3000 industrial power sweeper has been purchased and is

currently available to regularly clean all paved roadways. The roads will be cleaned a minimum of daily. As an alternative to the daily roadway sweepings, U.S. Gypsum may also elect to water wash the roadways on an every other day basis using contractor roadway sweepers equipped with water sprays or existing fire hydrant water sources. All plant parking lots and truck marshaling areas will be swept weekly.

E. Unloading and Transportation of Dust Collector Dust:

1) Only one (1) plant dust collectors has the collected dust transported on-site. All other plant dust collectors return the dust back into the process using screw conveyors whose dust collection equipment is operated under existing permits.

a. End Saw Dust Collector - This dust collector is a Flex-Kleen, Model 84WRWC96 rated 4,000 SCFM with a cloth area of 1,018 sq. ft. The collected dust is dropped through a rotary valve into a 20 yard hopper for on-site disposal; an average of one hopper per day. The hopper is positioned in an existing enclosure and the hopper is tarped prior to being transported to the enclosed board waste recycling shredder equipment building.

F. Crushers, grinding mills, bucket elevators, conveyor transfer points, conveyor bagging operations, storage bins, and fine product loading.

1) All plant crushers, grinding mills, bucket elevators, conveyor transfer points (except as noted below), fine products truck loading (except as noted below), bagging operations, and storage bins are all vented through existing dust collectors.

The exceptions noted above are the conveyor transfer points onto and off of the rock unloading conveyor and bulk loading of Granular.

2) Rock Unloading Conveyor - Great Lakes freighters normally transfer crude gypsum ore onto the rock unloading belt as described under Outside Rock Storage Pile. The freighter positions its unloading belt inside an enclosed hopper where the ore is transferred onto the rock unloading belt. Transferring of ore onto the unloading belt will utilize a water spray system.

U.S. Gypsum Co. has installed a water spray station manually operated to control dust emissions from this source. Two (2) spray nozzles, one located at the hopper inlet area, and one at the discharge point will be utilized to supply a fine mist of water over the ore as it discharges; a minimum of 1 gpm will be sprayed to control any dusting.

3) Rock Unloading Belt - Transferring into Silo - The rock unloading belt discharges the raw gypsum ore into the enclosed rock silo. The enclosed rock silo contains the dust generated at the transfer point.

4) Bulk Loading of Granular - Bulk Granular is loaded into either 26 ton or 50 ton bulk transfer trucks. Trucks are loaded via a screw

conveyor through a telescoping chute into the trucks. The telescoping chute is maintained under negative pressure by the plant's existing Bulk Loading Dust Collector. The dust collector is a Wheelabrator Model 70-AC rated at 1650 CFM with 547 sq. ft. of cloth area.

G. Transporting of Bulk Materials - Silt Content Between 1 - 5% - Bulk waste material is collected and loaded into 20-yard waste containers for disposal by a contract carrier. The waste generated at the south end of the Board Plant is wet undried panels of gypsum wallboard with a typical moisture content of 33%. This waste is transported to the board recycling area. The waste generated at the south end of the Cement Board Plant consists of wet undried panels of Durock, plant floor sweeper collected waste and miscellaneous plant trash. These waste containers are disposed off site. In all cases, the plant's 950, Caterpillar front end payloader with a 2 1/2 cubic yard bucket is used to fill the waste container. The silt content of this waste is estimated at between 1 and 5 percent. The waste containers are loaded so that no part of the load is within six (6) inches of the top of the container and all loads are tarped prior to transport.

H. All Cases - Spilled Material - In all cases where transport, unloading, or reclaiming of bulk material is carried out, the U.S. Gypsum Co. proposes to clean up any spilled material that should occur at a minimum of every other day.

(Note: See attached DNR required Recordkeeping for Fugitive Dust Sources Addendum for additional information.)

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