

**FUGITIVE DUST CONTROL PROGRAM**

FOR

MARTIN MARIETTA MAGNESIA SPECIALTIES LLC  
SRN: A3900

1800 Eastlake Road  
Manistee, Michigan 49660

Submitted To

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Act 451 Part 55, Section 324.5524

Revised: 4/15/21

## **TABLE OF CONTENTS**

- 1.0 Introduction
- 2.0 Facility Description and Contact Information
- 3.0 Potential Sources of Fugitive Dust
- 4.0 Management of Potential Sources
- 5.0 Record Keeping
- 6.0 Plant Map

## **1.0 INTRODUCTION**

The Martin Marietta Magnesia Specialties Renewable Operating Permit (ROP) requires the facility to implement and maintain a program for continuous fugitive emissions control for all plant roadways, the plant yard, all material storage piles, and all material handling operations as approved by the District Supervisor in compliance with Natural Resources and Environmental Protection Act 451 Part 55, Section 324.5524.

## **2.0 FACILITY DESCRIPTION AND CONTACT INFORMATION**

### **2.1 Facility Location**

Martin Marietta Magnesia Specialties, LLC  
1800 Eastlake Road  
Manistee, Michigan 49660

### **2.2 Facility Contact**

Jim Reithel, Vice President of Operations  
1800 Eastlake Road  
Manistee, Michigan 49660

### **2.3 Activities at the Facility**

The principle products of the Manistee Plant is Magnesium Oxide (MgO) and Magnesium Hydroxide slurry and powder  $Mg(OH)_2$ . This material can range from a wet slurry to a fine white powder to a rock-hard tan briquette depending on the chemistry and degree of burn. Major process components are a rotary kiln, three vertical Herreshoff furnaces, and two vertical shaft kilns, three precision calciners, and three air-swept dryers.

### **2.4 Site Map**

(see attached map)

### **3.0 POTENTIAL SOURCES OF FUGITIVE DUST**

1. Paved roadways
2. Unpaved roadway
3. Buildings
4. Material Handling Operations

### **4.0 MANAGEMENT OF POTENTIAL SOURCES OF FUGITIVE DUST**

#### **4.1 Paved Roadways**

- a. Posted speed limit in plant is 17 miles per hour.
- b. A road sweeper is employed to clean all paved surfaces. Cleaning of paved surfaces is done by an outside contractor on an as needed basis. The cleaning is suspended from November into April for weather reasons and the limitations of the sweeper. The efficient operation of the sweeper requires spray water. When temperatures drop below freezing, the water lines must be drained to prevent damage to the sweeper.

#### **4.2 Unpaved Roadways**

The potential for emissions from unpaved roadways is dependent on weather conditions. Unpaved roadways will be treated with brine to control dust as necessary during the months of April through October. Most of the facility now has paved roadways.

#### **4.3 Buildings**

Material spilled on floors in the process buildings will be swept and returned to the process to minimize fugitive dust from being blown from the buildings.

#### **4.4 Material Handling Operations**

Dust is controlled at transfer points, screens, mills, loadouts, and silos by fabric filter dust collectors/bag houses. All dust transfer systems from bag houses are enclosed and are designed to return to the process.

Spot spills are remedied using a vac truck and routine housekeeping. Routine housekeeping is accomplished primarily by sweeping, returning most material to the process via belts and elevators designed to receive these materials.

The following emission units have requirements in the ROP regarding fugitive dust plan preventative procedures.

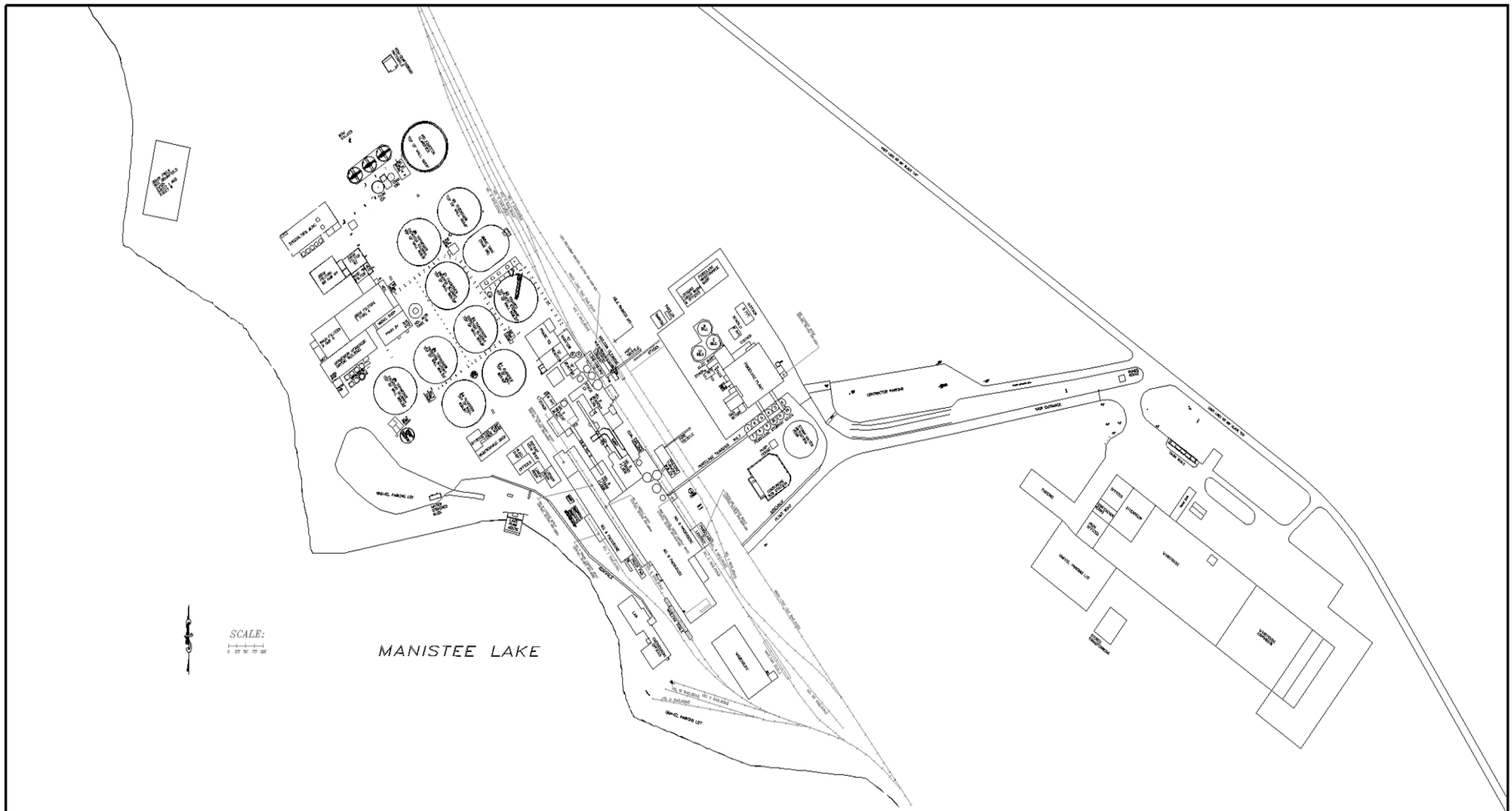
- a. EUN2SMILL: Dust from this unit is controlled by Pulse Jet Baghouse 25-0887. This equipment is monitored and maintained per requirements in the Malfunction Abatement Plan and the Renewable Operating Permit. Spot spills are cleaned up as needed using routine housekeeping practices.
- b. EU88-SCRNR: Dust from this unit is controlled by Pulse Jet Baghouse 25-0890. This equipment is monitored and maintained per requirements in the Malfunction Abatement Plan and the Renewable Operating Permit. Spot spills are cleaned up as needed using routine housekeeping practices.
- c. EUN2SMILLTRANS: Dust from this unit is controlled by Pulse Jet Baghouse 25-1020. This equipment is monitored and maintained per requirements in the Malfunction Abatement Plan and the Renewable Operating Permit. Spot spills are cleaned up as needed using routine housekeeping.
- d. EUADDITIVE-DC: Dust from this unit is controlled by Pulse Jet Baghouse 25-0881. This equipment is monitored and maintained per requirements in the Malfunction Abatement Plan and the Renewable Operating Permit. Spot spills are cleaned up as needed using routine housekeeping practices.
- e. EUHB-BINS: Dust from this unit is controlled by Pulse Jet Baghouse 25-0880. This equipment is monitored and maintained per requirements in the Malfunction Abatement Plan and the Renewable Operating Permit. Spot spills are cleaned up as needed using routine housekeeping practices.
- f. EUC-LIME: Dust from this unit is controlled by Pulse Jet Baghouse 25-0873. This equipment is monitored and maintained per requirements in the Malfunction

Abatement Plan and the Renewable Operating Permit. Spot spills are cleaned up as needed using routine housekeeping practices.

## **5.0 RECORD KEEPING**

Records of frequency of road sweeping and dust suppression application to unpaved roadways will be maintained for a period of five years.

## **6.0 PLANT MAP**



**FUGITIVE DUST PLAN**

**NOTES:**

1. REDRAWN FROM DRAWING NO. 14-14-1273 (ORIGINALLY DRAWN BY MEARS ENGINEERING INC. 8-22-75)
2. FOR RAILROAD TRACKS NO. 1, 2, 3, 4, 5A AND 5B SEE DRAWING NO. 14-14-2619 (TRACK CONFIGURATION COMPLETED IN 1991, PREPARED BY ROBERT E. AHLF, RAILWAY DEVELOPMENT CONSULTANT P.O. BOX 1301 HOMEWOOD, ILLINOIS 60430, PHONE (708) 798-5193)
3. FOR RAILROAD TRACKS NO. 6, 7, 8, 9, 10 AND 11 SEE DRAWING NO. 14-14-1319 (MODIFICATIONS TO RAILROAD TRACKWORK 5-8-76 BY WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL STREET, BALTIMORE MD.)
4. FOR OUTFALL (STORM DRAINS) SEE DRAWING NO. 14-14-332, 14-14-335, 14-14-376, 14-14-656, 14-14-750, 14-14-1319, 14-14-1320, 14-14-1562, 14-14-2078, 14-14-2427, 14-14-2556, A-1465J, A-2082L, A-2282L.
5. FOR LAKE WATER LINES SEE DRAWING NO'S 14-14-516, 14-14-658, 14-14-750, 14-14-827, 14-14-828, 14-14-1319, 14-14-1320, 14-14-1832, 14-14-2078, 14-14-2565, MEARS 8106-044E.
6. FOR FIBER OPTIC ROUTE AND POTABLE WATER ROUTE SEE DWG. NO. 14-14-2382
7. FILTRATE LINES REFERENCE DWGS: A-20746, 14-14-1562, 14-14-1580, MEARS 8104-030E SHTS 1 THRU 3.
8. FOR SEPTIC TANK AND SEWAGE LIFT STATION INFORMATION, SEE PA/EQUIPMENT FILES\490991 & 490994 SEWAGE LIFT STATION.
9. FOR UNDERGROUND POWER DISTRIBUTION (7200 VOLT LINES) SEE: 14-71-392, 14-71-725, 14-71-726, 14-14-1075.
10. OLD PHONE LINES AND OLD COMMUNICATION LINES, SEE DWG: 73-83-1550 (BILL STRICKLER FILES).

<b>MARTIN MARIETTA</b>				<b>MAGNESIA SPECIALTIES INC.</b>																																																																																																																					
<table border="1"> <thead> <tr> <th>DATE</th> <th>NO.</th> <th>REVISION</th> <th>BY</th> <th>DATE</th> <th>NO.</th> <th>REVISION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>11-20-94</td> <td>01</td> <td>MODIFY STORM DRAIN ELEMENT FROM</td> <td></td> <td>11-14-90</td> <td>1</td> <td>ADD TRACKS, WELDED TRANSMITTE PLUGS</td> <td>MC</td> </tr> <tr> <td></td> <td></td> <td>DOWN TO SEPTIC PUMP BACK TO PROCESS</td> <td>MC</td> <td>11-10-93</td> <td>2</td> <td>ADDED SEPTIC CONTROL TANKS</td> <td>MC</td> </tr> <tr> <td>03/19/02</td> <td>02</td> <td>MODIFY STORM DRAIN ELEMENT FROM</td> <td></td> <td>11-07-93</td> <td>3</td> <td>ADDED GAS HYDROLYSE FACILITY</td> <td>MC</td> </tr> <tr> <td></td> <td></td> <td>DOWN TO SEP-TL PUMP TO RETENTION POND</td> <td>MC</td> <td>11-09-94</td> <td>4</td> <td>ADDED RECYCLE PILE</td> <td>MC</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>11-28-94</td> <td>5</td> <td>REMOVED RR TRACKS 1, 2, 3, 4 AND 5</td> <td>MC</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>11-07-96</td> <td>6</td> <td>GAZ LINES WERE ADDED</td> <td>MC</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>11-05-97</td> <td>7</td> <td>ADDED BUFFALS AND OTHER BRANDS</td> <td>MC</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>11-04-97</td> <td>8</td> <td>ADDED WAREHOUSE EXPANSION</td> <td>MC</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>11-17-99</td> <td>9</td> <td>ADDED LAKE WATER LINES</td> <td>MC</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>11-03-99</td> <td>10</td> <td>LARGER HESS OIL AST AND OIL DRAIN</td> <td>MC</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>11-04-00</td> <td>11</td> <td>ADDED PAVEMENT</td> <td>MC</td> </tr> </tbody> </table>				DATE	NO.	REVISION	BY	DATE	NO.	REVISION	BY	11-20-94	01	MODIFY STORM DRAIN ELEMENT FROM		11-14-90	1	ADD TRACKS, WELDED TRANSMITTE PLUGS	MC			DOWN TO SEPTIC PUMP BACK TO PROCESS	MC	11-10-93	2	ADDED SEPTIC CONTROL TANKS	MC	03/19/02	02	MODIFY STORM DRAIN ELEMENT FROM		11-07-93	3	ADDED GAS HYDROLYSE FACILITY	MC			DOWN TO SEP-TL PUMP TO RETENTION POND	MC	11-09-94	4	ADDED RECYCLE PILE	MC					11-28-94	5	REMOVED RR TRACKS 1, 2, 3, 4 AND 5	MC					11-07-96	6	GAZ LINES WERE ADDED	MC					11-05-97	7	ADDED BUFFALS AND OTHER BRANDS	MC					11-04-97	8	ADDED WAREHOUSE EXPANSION	MC					11-17-99	9	ADDED LAKE WATER LINES	MC					11-03-99	10	LARGER HESS OIL AST AND OIL DRAIN	MC					11-04-00	11	ADDED PAVEMENT	MC	<table border="1"> <tr> <td>DATE</td> <td>11-3-89</td> <td>SCALE</td> <td>AS NOTED</td> <td>DEPARTMENT</td> <td>73</td> </tr> <tr> <td>DRAWN</td> <td>MATT CICHY</td> <td>VDG. NO.</td> <td></td> <td>PLANT SCALE</td> <td>1=1</td> </tr> <tr> <td>DRAWING NO.</td> <td colspan="5"><b>14 - 14 - 1273</b></td> </tr> </table>				DATE	11-3-89	SCALE	AS NOTED	DEPARTMENT	73	DRAWN	MATT CICHY	VDG. NO.		PLANT SCALE	1=1	DRAWING NO.	<b>14 - 14 - 1273</b>				
DATE	NO.	REVISION	BY	DATE	NO.	REVISION	BY																																																																																																																		
11-20-94	01	MODIFY STORM DRAIN ELEMENT FROM		11-14-90	1	ADD TRACKS, WELDED TRANSMITTE PLUGS	MC																																																																																																																		
		DOWN TO SEPTIC PUMP BACK TO PROCESS	MC	11-10-93	2	ADDED SEPTIC CONTROL TANKS	MC																																																																																																																		
03/19/02	02	MODIFY STORM DRAIN ELEMENT FROM		11-07-93	3	ADDED GAS HYDROLYSE FACILITY	MC																																																																																																																		
		DOWN TO SEP-TL PUMP TO RETENTION POND	MC	11-09-94	4	ADDED RECYCLE PILE	MC																																																																																																																		
				11-28-94	5	REMOVED RR TRACKS 1, 2, 3, 4 AND 5	MC																																																																																																																		
				11-07-96	6	GAZ LINES WERE ADDED	MC																																																																																																																		
				11-05-97	7	ADDED BUFFALS AND OTHER BRANDS	MC																																																																																																																		
				11-04-97	8	ADDED WAREHOUSE EXPANSION	MC																																																																																																																		
				11-17-99	9	ADDED LAKE WATER LINES	MC																																																																																																																		
				11-03-99	10	LARGER HESS OIL AST AND OIL DRAIN	MC																																																																																																																		
				11-04-00	11	ADDED PAVEMENT	MC																																																																																																																		
DATE	11-3-89	SCALE	AS NOTED	DEPARTMENT	73																																																																																																																				
DRAWN	MATT CICHY	VDG. NO.		PLANT SCALE	1=1																																																																																																																				
DRAWING NO.	<b>14 - 14 - 1273</b>																																																																																																																								