

The Dow Chemical Company  
Michigan Operations, Midland Site  
Building 1790  
Midland, Michigan 48667  
Attn: Responsible Care Leader

## Fugitive Dust Control Program

As required by Act 451 Section 324.5524, this Fugitive Dust Control Program for The Dow Chemical Company in Midland, Michigan is submitted for the Manufacturing Facility

Attachment #1 - The Site fugitive dust control plan map shows the area affected by this dust control plan.

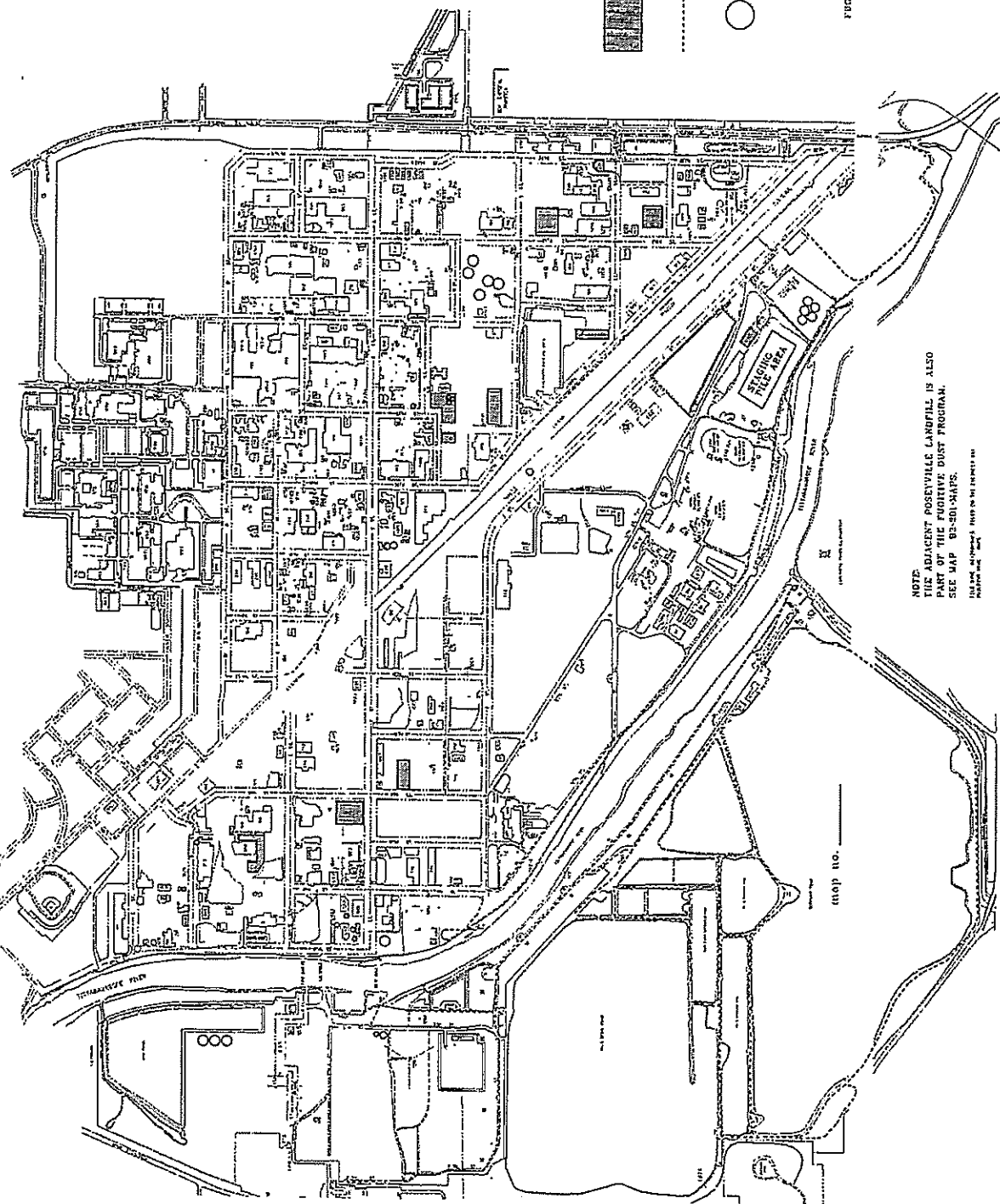
Attachment #2 – Dust suppressants and application rates

No waste oil or recycled oil will be used for dust suppression.

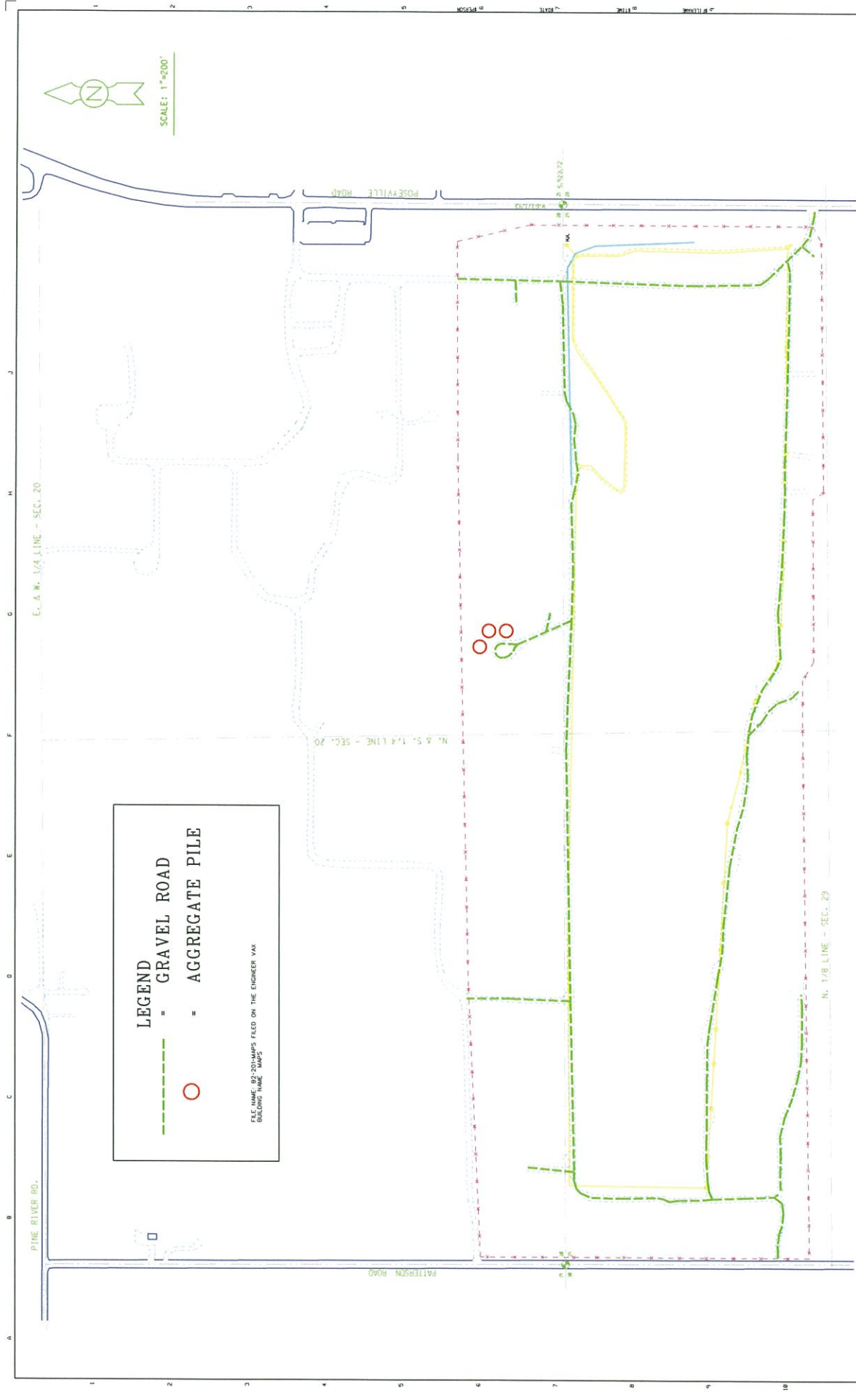
- I. Manufacturing Facility
  - A. The Michigan Division Manufacturing Facility map shows the location of the following:
    - a. Roads and Parking Lots (Paved & Unpaved)
    - b. Current long term Storage Piles
    - c. Incinerator Complex Area
    - d. Staging Pile
  - B. Description of Practices
    - a. Paved Roads & Parking Lots
      - i. Cleaning of Roads and Parking Lots will only be done from April through October.
      - ii. Paved Roads will be inspected for visible dust by Dow Security personnel during their normal rounds. Excessive dusting will be reported and the identified area will be cleaned as soon as practical.
      - iii. All Paved roads (indicated on Map 1) will be cleaned a minimum of once per quarter during the months of April through September and once in October, if necessary. Paved roads will be cleaned when dusting can first be seen as vehicles travel on roadways. Cleaning consists of water flushing or wet sweeping.
      - iv. Paved parking lots will be cleaned when dusting can first be seen as vehicles travel across lots, and a minimum of once per year.
      - v. The posted speed limit will be no higher than 30 mph to minimize generation of dust.

- vi. Where work requires vehicles to be taken off of paved roads, wheel washing will be done when substantial track-out of soil onto paved roads is observed. Road cleaning to remove tracked out soil will be done as soon as practical.
- b. Unpaved Roads & Unpaved Parking lots
  - i. Application of dust suppressant will only be done from April through October.
  - ii. Unpaved roads will be inspected for visible dust by Dow Security personnel during their normal rounds. Excessive dusting will be reported and the identified area will be treated with a dust suppressant as soon as practical.
  - iii. Unpaved roads will be managed by applying a dust suppressant when dust can first be seen, or by covering with fresh stone mix to minimize fugitive dust emissions.
  - iv. Dust suppressant will be applied to unpaved parking lots when dusting becomes visible as vehicles travel across the lot, and a minimum of once per year. Fugitive emissions may also be minimized by use of a gravel cover. Unpaved parking lots may be paved when vehicle volume is such that dust is deemed excessive. Unpaved parking lots are identified on the site map.
- c. Open Lots
  - i. Open lots will be managed in a manner to minimize the generation of fugitive dust which may include the use of vegetation, gravel, adequate barricades to prevent vehicle traffic or by application of a dust suppressant.
  - ii. If dust is managed by use of dust suppressant then suppressant will be applied from April through October when dusting becomes visible.
- d. Storage Piles
  - i. Fugitive dust emissions from piles will be controlled by minimizing the drop distance when off-loading materials. The drop distance shall never exceed the distance from the top of the truck bed to grade.
  - ii. Fugitive dust emissions from loading will be controlled by minimizing drop distance. The drop distance will be minimized by limiting the distance between the bottom of the loader bucket to the top of the truck to no greater than 6 feet.
  - iii. Dust generation during the transport of solids capable of generating dust will be minimized by covering the truck box with a tarp or equivalent cover.
  - iv. ***Excavations of soil are covered under Attachment 27 "Soil and Groundwater Exposure Control Program" of the Part 111 Operating License.***

- e. Incinerator Complex Area  
(Covered under its own plan as referenced in TABLE E-1.56c  
EG32INCINERATOR of the ROP)
- f. Staging Pile
  - i. Fugitive dust emissions will be minimized by covering the Staging Pile with a tarp when material is present, except when adding or removing inventory.
  - ii. Trucks hauling remediation waste soils will be tarped and have sealed tailgates.
  - iii. The trucks will enter the Staging Pile, deposit their load and then be decontaminated with brooms and shovels prior to exiting the facility.
  - iv. The Staging Pile and its components will be inspected as defined in the approved Part 111 Operating License.
  - v. Operations at the Staging Pile will follow any additional requirements set forth in an approved remediation project specific fugitive dust plan if applicable.
- g. Other Fugitive Dust Sources
  - i. Apparent dust generated by moving bulk materials by conveyor equipment will be controlled by enclosing all transfer points in the handling system.
  - ii. Dust generated by the chipping/mulching of pallets will be minimized through the use of a water spray.
- C. Records – Records of road cleaning, application of dust suppressant, and Staging Pile inspections will be retained for five years.
- D. *Maintenance/updating of the Map – The map attached to this plan shall be updated semi-annually to reflect any changes in parking area, traffic patterns or storage piles. The updated map shall be submitted to the Air Quality Division District Supervisor and to the Chief of the Waste and Hazardous Materials Division by March 15<sup>th</sup> and September 15<sup>th</sup> of each year.***



NO.	REVISION				REVISED TITLE RECORD				DRAWING DIVISION				THIS DOW CHEMICAL COMPANY				
	DATE	BY	CHKD	APP'D	DATE	BY	CHKD	APP'D	NO.	DATE	BY	CHKD	APP'D	PROJECT	SCALE	SHEET NO.	TOTAL SHEETS
1	2/17/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
2	3/10/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
3	3/24/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
4	3/28/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
5	4/1/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
6	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
7	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
8	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
9	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
10	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
11	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
12	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
13	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
14	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
15	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
16	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
17	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
18	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
19	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
20	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
21	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
22	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
23	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
24	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1
25	4/2/58	...	...	...	82-501-SHAPE	...	...	...	EXHAUST AIR UPGRADE	1/3	...	...	...	82-200-SHAPE	1/1	1	1



**LEGEND**

— GRVEL ROAD

○ AGGREGATE PILE

FILE NAME: B2-201-MAPS FILED ON THE ENGINEER VAX BUILDING NAME: MAPS

REV	DATE	BY	CHK	REVISION	DATE	BY	CHK	REVISION	DATE	BY	CHK	REVISION	DATE	BY	CHK	REVISION
A	TH 08/28/01	TH	TH	MAP REVIEWS AND NO CHANGES WERE REQUIRED	08/28/01	TH	TH									
B	TH 07/28/01	TH	TH	MAP REVIEWS AND NO CHANGES WERE REQUIRED	07/28/01	TH	TH									
C	AC 03/02/02	AC	AC	MAP REVIEWS AND UPDATES	03/02/02	AC	AC									
D	MS 07/27/04	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	07/27/04	MS	MS									
E	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
F	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
G	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
H	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
I	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
J	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
K	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
L	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
M	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
N	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
O	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
P	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
Q	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
R	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
S	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
T	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
U	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
V	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
W	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
X	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
Y	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									
Z	MS 09/03/05	MS	MS	MAP REVIEWS AND NO CHANGES WERE REQUIRED	09/03/05	MS	MS									

**THE DOW CHEMICAL COMPANY**  
 MICHAEL DIVISION  
 EXHAUST AIR UPGRADE  
 POSEVILLE LANDFILL FUGITIVE DUST MAP

SCALE: 1"=200'

PROJECT NUMBER: B2-201-MAPS  
 SHEET NUMBER: 2  
 TOTAL SHEETS: 2

## Attachment #2

### **Dust Suppressants Used**

1. Water
2. Solution: Water  
Calcium Chloride (Solution may vary between 25% - 40%)
3. Solids Calcium Chloride Flake or  
Pellet

### **Application Rate for Dust Suppressant - Gravity feed**

Dust suppressant will be applied at the rate of approximately 0.14 gallons/square yard.

### **Application Rate for Dust Suppressant (Spray/Flushing)**

This method is generally used for paved surfaces and the dust on the surface is flushed/sprayed off the surface.

### **Application Rate for Dust Suppressant (Solids - Flake & Pellet)**

- 1.0 lb per square yard for Flake
- 0.8 lb per square yard for Pellets