FUGITIVE DUST CONTROL PLAN

AND

MALFUNCTION PREVENTION AND ABATEMENT PLAN (MPAP)

COULEE FRAC SAND, LLC

CREATED BY COULEE FRAC SAND

FUGITIVE DUST CONTROL PLAN

This Fugitive Dust Control Plan has been developed to reduce or eliminate fugitive dust emissions at the Coulee Frac Sand, mine and wet plant located at 9240 Cty. Rd. V Chili, Wi. 54420. The control of fugitive dust is required under Section NR 415.04, Wisconsin Administrative Code, for all affected facilities. Section NR 415.075(2), Wis. Adm. Code, has specific requirements for fugitive dust control for industrial sand mines.

This plan includes:

- criteria which specify dust suppression activities
- when dust suppression activities shall be implemented
- records to confirm dust suppression activities have been completed

A best management practice for the sand industry to control fugitive dust is by applying water or other suppressants on the truck travel route, truck loading area, and stock piles. Water and/or other suppressants shall be present in abundant supply to serve this purpose. Trucks transporting product from the mine shall be covered at all times other than when being loaded. The paved driveway and loadout area of the mine shall be swept on a regular basis to minimize dust emissions as well. The standard for fugitive dust emission quantification is by visual observation. If fugitive dust is anticipated or observed, it shall be suppressed promptly.

Sand is mined with an excavator and transported by off road haul trucks and or conveyors or a slurry system to the wet plant for washing. After washing it is hauled off-site. The wash plant operation provides an environment that assists and supports dust suppression.

The sections below provide an area specific detail of the approach that will be implemented for fugitive dust control.

1. Site Roadway/Loading Area/Landing

A. The dust on the site roadway and truck loading areas shall be controlled by applications of water from the on-site storm water detention ponds using a water truck. Other acceptable and approved fugitive dust control compounds,

provided the application does not create a hydrocarbon, odor or water pollution problem (Section NR 415.075, Wis. Adm. Code), may also be employed.

Observations shall be made and recorded frequently, as conditions may render necessary, to determine if application of dust suppressants is necessary. Whenever fugitive dust is anticipated or observed action shall be taken to control emissions and those actions recorded. After application, a follow-up observation shall be performed and recorded to ensure the effectiveness of the control measures.

B. The paved driveway, loadout and truck staging area shall be swept as needed during days of operation and whenever fugitive dust or sand is observed. After control measures are taken, a follow-up observation shall be performed to ensure the effectiveness of the control measures.

C. Speed limit signs shall be posted at the mine entrance and haul roads. Speed limit shall be limited to 10 miles per hour or less on both the concrete approach as well as the crushed rock portion of the site roadway. (Section NR 415.075, Wis. Adm. Code)

D. Fugitive emissions from the haul roads shall be controlled using water or another suppressant to control emissions.

E. Every effort should be made to control fugitive dust from crossing property boundaries.

F. Berms and/or other windbreak methods such as fences and tree lines shall be used surrounding all or parts of the site, where practical.

G. Meteorology data at site shall be obtained and recorded daily in the Fugitive Dust Log for at least 5 years.

2. Plant

A. The drop distance at each transfer point shall be reduced to the minimum the equipment can achieve. Efforts shall be made to box these points in using steel, plastic, rubber, etc. when practical.

B. Moisture content of material conveyed in the wet plant shall be maintained between 4% and 16%.

C. Whenever fugitive dust is anticipated or observed, water or another suppressant shall be applied to the source of fugitive dust to control emissions.

D. Plant equipment and enclosures shall be inspected on a regular basis frequently, as conditions may render necessary, for physical integrity. Any equipment or seal leaks shall be repaired as soon as practicable.

3. Storage Piles

A. Stockpiling of all nonmetallic minerals shall be performed to minimize drop distance and control potential dust problems.

B. Stockpiles shall be observed frequently, as conditions may render necessary, for fugitive dust. Corrective actions will be taken if fugitive dust is observed using best management practices.

C. Encrusting agents or other coverage methods approved by the Wisconsin Department of Natural Resources (DNR) shall be used on any stockpile if necessary, based on operating conditions and best business practices. Long term piles are not planned at this site but these requirements would be followed if there becomes a need.

4. Truck Traffic

A. Vehicles shall be loaded to prevent their contents from dropping, leaking, blowing or otherwise escaping. Loaders will be required to load trucks so that no part of the load shall come in contact within six (6) inches of the top of any side board, side panel or tail gate. All trucks shall be covered or secured to prevent the escape of materials likely to become airborne during transport, prior to any transportation off site. (Section NR 415.075, Wis. Adm. Code)

B. All sand trucks for over the road hauling entering and leaving the plant shall have their loads tarped or covered in another manner.

C. Any dust and/or spillage of material off-site shall be cleaned up and returned to the facility or properly disposed of, to the extent practicable.

5. Drilling and Blasting Activities

A. Blasting activities are not expected to be necessary at the site. Drilling and blasting activities will be performed using a wet method or other means to reduce fugitive emissions. Fugitive emissions will not exceed 20% opacity at the source. All blasting shall use blast hole stemming materials that have been approved by the State of Wisconsin. Wis. Admin. Code § NR 415.075.

6. Daily Inspections

A. An on-site fugitive dust observer shall make a visible emission observation at the facility daily. The results of all observations shall be recorded and maintained in the "Daily Fugitive Dust Control Inspection/Correction Log" for at least 5 years.

B. Fugitive dust control equipment shall be properly maintained and repair work should be noted in the Fugitive Dust Log for at least 5 years.

C. The schedule for the watering of stockpiles and internal travel ways shall be on a daily basis during dry periods. Sweeping of the approach area shall occur whenever sufficient fugitive dust or dry sand is present that may become airborne. Watering and sweeping shall be conducted more frequently during extremely dry periods, as needed to control fugitive dust.

D. The provisions and procedures of this plan are subject to adjustment if following an inspection and written notification, the DNR finds these fugitive dust management practices do not meet their requirements and/or permitted emission limits are not being met.

7. List of Staff Responsible for Implementation of Plan

An on-site fugitive dust observer, including but not limited to the Operator noted below who may reside at an adjacent property to the mine site, shall be present whenever the facility is in operation and shall be available for observation on days not in operation. Staff members shall notify the plant manager of fugitive emissions when anticipated or observed. This shall include a description of the source of the excessive emission. The plant manager shall be responsible for directing dust control measures. Table 1 lists Coulee Frac Sand's Nonmetallic Mine Fugitive Dust Control Team.

Table 1

Coulee Frac Sand Nonmetallic Mine Fugitive Dust Control Team		
Name	**Title**	**Responsibility**
Douglas Schmidt	Managing Owner and VP Mining Operations	Supervision
James Bogart	Operator	Inspections, Fugitive Dust Control Log
	r	Inspections, Fugitive Dust Control Log

8. List of Equipment, Materials and Spare Parts

The following is a list of equipment that shall be on site or readily obtainable for control and clean-up to reduce fugitive dust.

A. Water Truck

B. Skid steer with sweeper/hopper attachment
C. Brooms
D. Shovels
E. List of chemicals and/or additives for dust control and the Safety Data Sheets (SDS)

9. Excessive Fugitive Dust Plan

In the event that fugitive dust becomes airborne beyond the boundary of the mine site, operations creating the dust problem will be shut down until they can be rectified. The plant manager or appropriate personnel shall address the dust problem promptly. An investigation as to the cause of the airborne fugitive dust beyond the boundary of the mine site shall be conducted, and the plan revised to avoid any future fugitive dust emissions.

10. Control During Freezing Weather

Depending on the site operations and meteorological conditions, use of water amended with non-toxic antifreeze additives or other methods approved by the DNR shall be used to control dust during times when the temperature is below 32 degrees Fahrenheit. Typically, frac sand mining operations at this site shall cease prior to the use of such additives as we anticipate site activity limited to an eight month season.

COMMENT: Sand would be drawn down during the winter as needed. These control methods would apply if there is a cessation in operations or as otherwise needed to control dust.

11. Records

Records of weather meteorology data, inspections, equipment repairs, and dust suppressant activities shall be kept daily and maintained on file for at least 5 years, and made available to DNR upon request. Fugitive dust control reporting forms and other regular checks shall be dated and initialed by the person performing the checks.

MALFUNCTION PREVENTION AND ABATEMENT PLAN (MPAP)

The development of a Malfunction Prevention and Abatement Plan (MPAP) is required by Wisconsin Administrative Code NR 439.11 for any facility that may emit more than 15 pounds per day or 5 pounds per hour of any air contaminant for which emission limits have been adopted. The MPAP is a written description of the commonly employed inspection, maintenance, and repair practices used at a facility, with a predetermined protocol to minimize emissions of criteria pollutants. Typical pollutants include carbon monoxide, hydrocarbons (volatile organic compounds), particulate matter, sulfur oxides, and nitrogen oxides.

Particulate matter emission limits for this mine were calculated and are anticipated to be greater than the allowable limit of 15 pounds/day, thus a MPAP is required.

Particulate Matter Emissions

(1.7 PY PM x 2000 lbs.)/174 working days = 19.54 pounds/day

1. Inspection Interval

An on-site fugitive dust observer shall make a visible emission observation at the facility daily. The schedule for the watering of stockpiles and internal travel ways shall be on a daily basis during dry periods. Sweeping of the approach area shall occur whenever sufficient fugitive dust or dry sand is present that may become airborne. Watering and sweeping shall be conducted more frequently during extremely dry periods, as needed to control fugitive dust.

2. List of Staff Responsible for Implementation of Plan

An on-site fugitive dust observer, including but not limited to the Operator noted below who may reside at an adjacent property to the mine site, shall be present whenever the facility is in operation and shall be available for observation on days not in operation. Staff members shall notify the plant manager of fugitive emissions when anticipated or observed. This shall include a description of the source of the excessive emission. The plant manager shall be responsible for directing dust control measures.

Table 2 lists Coulee Frac Sand's Nonmetallic Mine Fugitive Dust Control Team.

Table 2

Coulee Frac Sand Nonmetallic Mine Fugitive Dust Control Team		
Name	**Title**	**Responsibility**
Douglas Schmidt	Managing Owner and VP Mining Operations	Supervision
James Bogart	Operator	Inspections, Fugitive Dust Control Log

		Inspections, Fugitive Dust Control Log

3. Fugitive Dust Control Devices

The following is the primary equipment that shall be on site or readily obtainable for control of fugitive dust by applying it where necessary to control fugitive dust.

A. Water Truck
B. Skid steer with sweeper
C. Brooms

4. Corrective Action/Procedure for Excessive Fugitive Dust

If fugitive dust is anticipated or observed onsite and the front end loader and skid steer are out of service; other bucketed excavation equipment shall be used for dust control.