Minerals Research, Inc. Dust Control Plan

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1.0 INTRODUCTION

This fugitive Dust Control Plan (plan) has been prepared to address the control of fugitive and airborne dust emissions from the Minerals Research, Inc. (MRI) Plant in Cottonwood, AZ. Operations include the drying, crushing, sizing and packaging of copper slag. This plan is designed to comply with the State of Arizona Department of Environmental Quality Rules and Regulations for air quality.

1.1 PURPOSE

The primary objective of this plan is to formulate a strategy for controlling fugitive or airborne dust emissions at the MRI Facility. This will be accomplished by identifying specific sources and activities which have the potential to generate fugitive or airborne dust emissions and the associated controls for each source. Plant personnel should review and follow the procedures outlined in this plan to control potential fugitive dust. As necessary, the scope of this plan will be revised to reflect changes in operations, dust control strategies, or site conditions.

Air emissions point sources (ie baghouse dust collectors) are covered separately under the plant's "MRI COTTONWOOD SECONDARY PLANT – OPERATION AND MAINTENANCE PLAN – BAGHOUSE and BIN VENT DUST COLLECTORS" (see Appendix 7) and are not included in this plan.

1.2 PLAN RESPONSIBILITY

Activity	**Responsible Department**
Visible Emissions Inspections	Production
Watering Schedule and Logs	Production
Corrective Actions	Maintenance
Housekeeping and Material Spill Cleanup	Production/maintenance
Recordkeeping	Management
Reporting	Management
Plan Modification and Update	Management

2.0 FACILITY DESCRIPTION

2.1 SITE OWNERSHIP AND PHYSICAL LOCATION

MRI owns and operates a copper slag processing manufacturing facility located in Cottonwood, AZ. The facility is located at 705 E Birch Street.

2.2 TYPE OF MATERIALS PROCESSED

Site activities include primary crushing and screening of the raw copper slag stockpile that involves drilling, blasting, crushing, sizing, and stockpiling of the secondary feed material. The process plant is then fed with this secondary feed to be dried, crushed and sized into different grades of products. The plant is fed from the secondary feed stockpile, by a front-end loader. The slag is then screened to feed either the crusher or the fluid bed dryer. The crusher circuit dust is controlled by watering the secondary feed with sprinklers and the use of water misters in the crushing circuit. Once the product has been dried it will, by means of belt conveyors, be sent to the finishing screens to be sized into a graded product and put into enclosed silos for shipment or bag packaging. This is a closed process (recirculating) and all slag fed into the plant will become an MRI product.

2.3 SITE DRAWING

The site drawing provided in Appendix 1 indicates the following:

- Entire project site boundaries;
- Nearest public roads.

3.0 FUGITIVE DUST EMISSION SOURCES

3.1 Raw copper slag stockpile

The raw copper slag has to be downsized to be able to be used in the secondary process plant. To do so MRI has the slag drilled and blasted before being fed to the primary processing circuit. The raw slag prior to blasting has limited dust potential because it is agglomerated. Water sprinklers and prewetting are used to minimize dust emissions from blasting.

3.2 PRIMARY PROCESSING

A front-loader feeds the recovered slag from the raw copper slag stockpile into a vibratory feeder. This feeder feeds the raw slag to a screen. From the screen, the raw slag is sized with the oversized material being fed to a cone crusher and the undersized material going to a stockpile (secondary feed) which is the feed for a secondary crushing and screening process. The crushed oversized material is then redirected back to the screen for sizing. This is a closed-loop crushing circuit. The primary crushing and screening process utilizes water for dust control and suppression. This entire process is a wet process, and the secondary feed stockpile is kept in a wet state to control wind erosion.

3.3 SECONDARY PROCESSING

Crushed slag from the secondary feed stockpile is used to feed the secondary process. The first section going to the crusher is a wet process and water is used to prevent dust emissions; plant feed is wetted as needed and water sprays are used in the crushing circuit to prevent the emissions of fugitive dust. Once crushed the product is dried with a natural gas-fired fluid bed dryer. Once the slag is dry it is conveyed to two enclosed screen sizers. These screen sizers produce different granular product grades, and every product is directed, by means of enclosed chutes, to their respective belt conveyors. All dry conveyor transfer points have hoods with air suction connected to the baghouses. The process is designed to control both fugitive and point source emissions that may occur within the plant process. Potential point source emissions resulting from material transfer points are captured through dust collectors to minimize particulate emissions.

3.4 FINISHED PRODUCT STORAGE

The finished products are conveyed to one of 16 steel silos according to product size. All MRI products can be shipped in bulk or different size bags (paper bags and bulk bags). The silos are aligned in two 8 silos banks. The silos are fed by means of enclosed chutes directly into the silos or to a shuttle conveyor that feeds the silos according to product designation.

Bagged products are stored in the warehouse or in the plant yard. All pallets of product stored outside are wrapped with shrink wrap to prevent any water damage to the finished product.

Bulk loading is done directly under the silos or from the front-end loader.

3.5 ROADWAYS AND STORAGE PILES

Potential fugitive dust sources, such as vehicle traffic and wind erosion from slag storage piles, are controlled by good maintenance and wetting of the road surface and storage piles with water. In addition, a dust suppressant will be used to control dust on the unpaved road surfaces at the north portion of the site (see Facility Drawing 2 in Appendix 1 for approximate boundaries for dust suppressant application).

4.0 FUGITIVE DUST EMISSION SOURCES AND CONTROLS

A list of potential fugitive dust emission sources and activities and a description of the types of dust control procedures to be implemented for each specific plant activity are outlined in the following sections. Plant personnel are responsible for implementing the prescribed controls to control fugitive dust.

4.1 PROCESSING PLANT

Work area examinations will be completed for specific areas within the processing plant. These areas must be inspected by production crews during each work shift. The goal of the work area examinations is to identify and clean up potential spills or accumulation of material resulting from copper slag plant operations. The daily plant inspection and cleanup standard operating procedure (SOP) to follow for these work area examinations and subsequent production inspection forms to be completed are provided in Appendix 2, including Shift Inspection/Maintenance, Baghouses Report, Plant Maintenance Request, and Instantaneous Survey. In addition, production personnel should follow the specific dust control procedures for potential fugitive emission sources outlined in the following tables.

Activity **Potential Source Description**	**Conveyors and Transfers Points** Raw material and finished product conveyors and transfer points that are not fully enclosed serve as possible point sources of fugitive dust throughout the plant.
Dust Control Procedures	• All transfer points will be monitored during each production shift to ensure compliance with emission limits • Enhanced skirting will be employed at the discharge end of conveyor belt CV-501 • Spilled or accumulated material beneath transfer points will be removed regularly as needed. • Water misters will be employed at the crusher and beneath the return idlers of fines conveyor belt CV-602. • Any spray nozzles not functioning properly will be cleaned or replaced as needed to restore proper operation

Activity	**Material Storage Piles**
Potential Source Description	Raw and secondary feed stockpiles and other materials stored in silos and storage buildings.

Dust Control Procedures	• Ensure storage building doors are closed when potential dust generating activities are occurring. • Inspect and clean up any spilled or accumulated material from transfer points into storage buildings or silos. • Inspect building access points and clean up any accumulated material outside of building entrances. • Minimize to maximum extent practical time access doors are left open when entering or exiting storage buildings.

Activity	**Paved Roads**
Potential Source Description	Paved roads may accumulate dust which may be disturbed by vehicle traffic.
Dust Control Procedures	• Follow posted plant speed limits of 5 mph when driving equipment or vehicles on paved plant roads. • Water paved roads on all plant operating days. Watering roads is not required if roads are maintained in wet condition due to sufficient rainfall or when ice or snow is present on roads. • Sweep paved roads on all plant operating days unless noted rainfall, ice or snow conditions above are present. • Inspect and remove any spilled materials on roads within eight hours of occurrence.

Activity	**Unpaved Roads**
Potential Source Description	Unpaved haul roads are a potential source of fugitive dust emissions throughout the plant. Traffic on the roads includes raw material hauling trucks, heavy and light equipment, and passenger vehicles.

Dust Control Procedures	• Follow posted plant speed limits of 5 mph when driving equipment or vehicles on unpaved plant roads. • Water unpaved roads on all plant operating days. Watering roads is not required if roads are maintained in wet condition due to sufficient rainfall or when ice or snow or dust suppressant is present on roads. • Inspect and remove any spilled materials on roads in a timely manner. • A dust suppressant will be applied as needed to minimize fugitive emissions from the unpaved portions of the site truck entryway and roadway along the north border of the plant site (see figure in Appendix 1 for approximate boundaries). • Do not apply water to areas where dust suppressant has been applied to prevent degrading its effectiveness. If the dust suppressant is no longer effective, apply a minimal amount of water to control dust and notify Management to schedule re-application of dust suppressant.

Activity	**Material Loading**
Potential Source Description	Loading materials into trucks poses a potential source of fugitive dust emissions.
Dust Control Procedures	• When using a front-end loader to load trucks, minimize the disturbance, vertical drop, and tumbling of the materials being loaded into trucks. Water will be applied as needed to minimize emissions. • Where practical, avoid loading trucks during periods of high winds to minimize fugitive dust transport. • Ensure loadout spouts from silos are properly seated before loading material from silos into trucks.

Activity	**Material Unloading** Unloading materials from trucks is a potential source of fugitive dust emissions. • Minimize the speed of dumping. • Minimize the material drop height. • Use water from a hose or water truck if necessary to minimize fugitive dust during unloading operations.
Potential Source Description	
Dust Control Procedures	

Activity	**Miscellaneous activities and areas such as:** **- Repair, Clearing or Leveling Operations,** **- Vacant areas** **- Roadway repair or construction** **- Material storage piles** **- Other potential dust generating activities.**
Potential Source Description	Miscellaneous activities have the potential to disturb the earth and are a potential source of dust emissions.
Dust Control Procedures	Uses one or more of the following applications or control measures when conducting miscellaneous activities which may contribute to potential fugitive dust: • Dust suppressants, • Adhesive soil stabilizer, • Cover, • Water or approved wetting agents, • Detour traffic from the area, • Bar access to the area, or • Other means as deemed appropriate

4.2 RAW SLAG OPERATIONS

Activity	**Drilling**
Potential Source Description	Fugitive dust generation during drilling of boreholes.
Dust Control Procedures	• Inspect and monitor to ensure that drilling contractor procedures are utilized to minimize fugitive dust. • Ensure drilling contractors use a dust collector apparatus which covers the borehole and surrounds the drill bit at the rock surface during drilling and physically minimizes the escape of dust. • As needed, ensure the contractor adds water to the drilling process to reduce dust generation.

Activity	**Blasting**
Potential Source Description	Fugitive dust generated during blasts.
Dust Control Procedures	• Monitor blasting contractor hole design and layout. • MRI or its contractor will not perform any blasting operations in high wind events (wind speeds over 25 mph). • Monitor to ensure the contractor is consistently producing a maximum amount of fractured crushable rock and a minimum amount of fly rock dust during blasts.

Activity	**Material Handling**
Potential Source Description	Handling materials poses a potential source of fugitive dust emissions. Water will be applied as needed to minimize emissions.

Dust Control Procedures	• When using a loader, minimize the disturbance, vertical drop, and tumbling of the materials being loaded into truck, hopper or stockpile. • Where practical, avoid handling during periods of high winds to minimize fugitive dust transport.

5.0 VISIBLE EMISSIONS OBSERVATIONS

The goal of the fugitive dust control plan is to ensure adequate dust control practices are implemented so that fugitive dust emissions are minimized and MRI does not cause or allow to be emitted into the atmosphere any fugitive emissions which exhibit opacity greater than 10 percent from permitted dust collector stacks (see Appendix 7) , 20 percent from miscellaneous point sources of emissions or 40 percent from miscellaneous plant activities, equipment, off-road machinery or roadway and site cleaning. MRI's goal is to maintain opacity levels well below these regulatory limits. MRI operators shall be trained to identify and implement appropriate fugitive dust control measures to minimize visible emissions from miscellaneous fugitive dust sources throughout the plant.

If excess fugitive visible emissions are observed from any miscellaneous plant activities or activities explicitly covered under this plan, MRI personnel must follow the procedures and complete the "Excess Visible Emissions from Plant Equipment or Dust Collection" form included in Appendix 3 of this plan. Documentation of excess visible emissions observations performed will be maintained by MRI.

Only blast contractor employees are permitted to be on the plant site during explosive blasting operations due to safety concerns. Accordingly, MRI will station an employee trained in Method 9 opacity assessment at a safe offsite location that will provide visibility to the blast location. If visible emissions are observed from the blast, a Method 9 assessment will be performed and documented.

6.0 DUST SUPPRESSION ACTIVITIES

The following sections describe dust suppression activities to be followed by MRI personnel.

6.1 DUST SUPPRESSANTS

Water application is the primary method used to reduce dust as needed to control potential fugitive dust sources before, after and while conducting any dust-generating operations. A dust suppressant will be applied as needed to minimize fugitive emissions from the unpaved portions of the site truck entryway and roadway along the north border of the plant site (see figure in Appendix 1 for approximate boundaries). Any dust suppressants must be reviewed and approved by MRI prior to use. Documentation must be kept which includes dust suppressants to be applied, including product specifications or label instructions for approved usage along with the following:

(a) Method, frequency, and intensity of dust suppressant application.

(b) Type, number, and capacity of dust suppressant application equipment.

(c) Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application of dust suppressants.

6.2 DUST SUPPRESSION EQUIPMENT

Dust suppression equipment consists of two 4,000-gallon capacity water tank trucks equipped with rear spray bars, as well as side and front spray nozzles. In addition, the water trucks are equipped with a 50 foot, 1.5-inch hose reel. Approved dust suppressants may be added to water trucks to increase dust control effectiveness as needed.

Water spray misters are used to control fugitive emissions at the crusher and beneath the return idlers of the fines conveyor.

A forklift mounted tank and spray system is used to apply chemical dust suppressant to targeted unpaved roadways. The spraying system consists of a rack on which a 275-gallon tote sits and is secured with straps. A pump delivers the suppressant product to a spray bar equipped with nozzles, each with a spray pattern and a selected gallon/minute capacity. A ball valve is used to adjust the flow rate, if needed. A forklift carries the set-up to the desired location, where the operator turns on the pump and starts spraying.

6.3 DUST SUPPRESSION APPLICATION SCHEDULE

MRI designated operators shall water roads and other potential fugitive dust sources on all operating days to minimize the generation of fugitive dust. A decreased watering schedule may be implemented if weather conditions such as rain, ice or snow allow for a decreased frequency. Water truck operators will water frequently enough and with quantities necessary to minimize

visible fugitive emissions.

Operators shall maintain watering logs of all watering activities. These logs document watering each day within the plant (see Appendix 4).

Dust suppressant will be applied to designated unpaved roadways as needed to minimize fugitive dust emissions. Excess water should be avoided in this area to avoid degrading the effectiveness of the dust suppressant. Management should be notified if dust is seen in this area and the minimum water applied to suppress until additional dust suppressant, if needed, can be applied.

7.0 RECORDKEEPING

7.1 DUST SUPPRESSION ACTIVITIES

MRI must maintain all records on specific dust control actions taken by the facility. These records shall be made available for review by regulatory authorities upon request.

Records include:

- Daily records of watering on all paved roads.
- Monthly records of maintenance activities conducted related to dust suppression.
- Daily records of watering performed on all unpaved roads.
- Production Inspection Forms to include documentation of water mister operational condition
- Records of application of dust suppressant, including date, amount of suppressant used, and location of application

7.2 VISIBLE EMISSIONS OBSERVATIONS

MRI shall maintain documentation of regularly conducted and as applicable Method 9 visible emissions observations. Sample forms used to document these observations are provided in Appendix 5.

7.3 INCONSISTENCIES WITH FUGITIVE DUST CONTROL PLAN

MRI shall maintain records of each instance of operation not consistent with the Dust Control Plan. These instances should be recorded through the permit deviation and reporting processes discussed in the reporting section of this plan.

8.0 REPORTING

Per the requirements of the air quality control permit, MRI shall report to ADEQ any emissions in excess of the limits established by the air quality control permit or any deviations from this dust control plan (see report form in Appendix 6). The following sections outline the procedures to be followed for excess emissions or deviations.

8.1 TELEPHONE, FAX or MyADEQ NOTIFICATION

The ADEQ must be notified by telephone, facsimile or on the MyADEQ website within 24 hours of the time MRI first learned of the occurrence of an excess emission event.

8.2 WRITTEN NOTIFICATION

Detailed written notification of an excess emissions event must be reported within 72 hours of the notification described above.

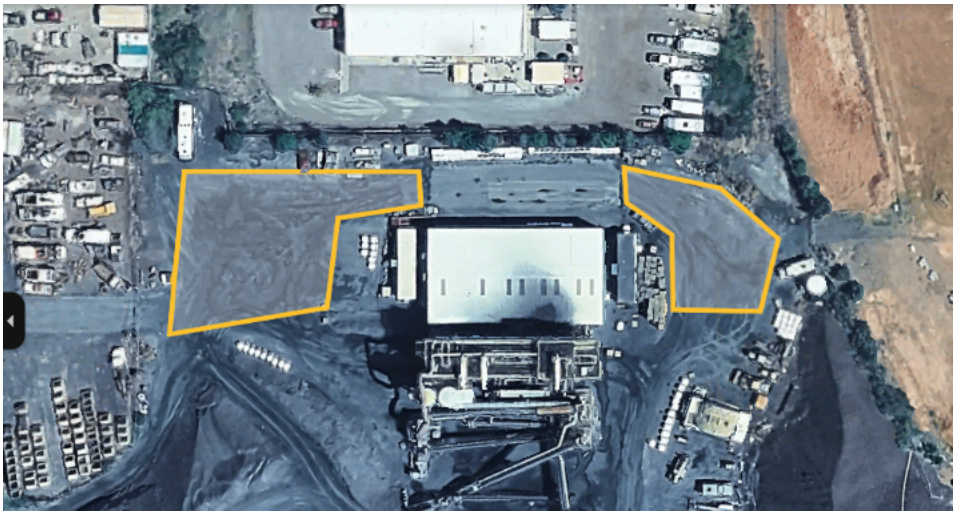
The written notification report shall contain the following information:

- Identity of each emission point where the excess emissions occurred
- Date, time and duration, or expected duration, of the excess emissions;
- Nature and cause of such emissions;
- If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions; and
- Steps taken to limit the excess emissions.
- If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.

APPENDIX 1

FACILITY DRAWING 1: PROCESSING PLANT, WAREHOUSE AND YARD

FACILITY DRAWING 2: APPROX. BOUNDARIES FOR DUST SUPPRESSANT APPLICATION



APPENDIX 2

DAILY PLANT PRODUCTION INSPECTION FORMS

DATE

Shift inspection / Maintenance

Baghouses

		OK	NO (explains actions/situation in maintenance notes)
Differential pressure	356		
	484		

Dust control

			Numbers of bags replaced
Dye test	356		
	484		
Air ducts		initials	
Water misters	Crusher	initials	
	Stockpiles	initials	
	Water truck	initials	

Plant Start/Stop

	Start	Stop	Decimal	REASON FOR STOP
Use military time	8:19	11:53	3.56	E-stop
or specify AM/PM	13:04		-13.07	
			0.00	
			0.00	
			0.00	
			0.00	
			0.00	
			0.00	
			0.00	
			0.00	
			0.00	
			0.00	
			0.00	
	ADJUSTED RUN TIME		-9.51	INPUT TONS #REF!
	Scheduled hours		#REF!	TONS PER HOU #REF!
	Down time		#REF!	

Maintenance notes:

Baghouses Report

356		BH601
Date	#bags	Notes

484		BH600
Date	#bags	Notes

PLANT MAINTENANCE REQUEST

Date of Request

Requesting Crew

Work Location

Description of Work / Repair

Request Priority

HIGH (must be done within 24 hrs	initials
Medium (must be done within a week)	initials
Low (can be done when you get a chance)	initials

INSTANTANEOUS SURVEY REPORT

Date: _____
Shift: _____
Time: 7-3

1- RAW, FUGITIVE AND WASTE STOCKPILE AREAS **Opacity Reading:** _____

AM	PM		
☐	☐	Surfaces adequately watered to prevent or minimize visible emissions	**Opacity Limit:** 40%
☐	☐	Applied water to all areas to adequately prevent or minimize visible emissions	
☐	☐	Increased watering due to high wind conditions to minimize dust	
☐	☐	Method 9 visible emissions reading taken (see attached)	

Incident Record: _____

[redacted]

2- EQUIPMENT ACCESS ROADS **Opacity Reading:** _____

AM	PM		
☐	☐	Travel surfaces adequately watered to prevent or minimize visible emissions	**Opacity Limit:** 40%
☐	☐	Equipment and trucks traveling at or below 10mph speed limit	

[redacted]

3- SECONDARY CRUSHING AND SCREENING PLANT **Opacity Reading:** _____

AM	PM		
☐	☐	Travel surfaces adequately controlled to prevent or minimize visible emissions	**Opacity Limit:** 20%
☐	☐	Increased watering due to high wind conditions to minimize dust	
☐	☐	Transfer point dust controls operational and functioning properly	
☐	☐	Crusher spray nozzles operational and functioning properly	
☐	☐	X-Fines belt spray nozzles operational and functioning properly	
☐	☐	Method 9 visible emissions reading taken (see attached)	
☐	☐	EXCESS EMISSIONS - Report Immediately to Management (Explain cause and the steps taken to achieve compliance)	

Incident Record: _____

[redacted]

4- BAGHOUSE AND DUCTING MONITORING **Opacity Reading:** _____

AM	PM		
☐	☐	Fines Storage Bins vent is operational and functioning properly	**Opacity Limit:** 10%
☐	☐	Baghouse, dusthood and ducting system inspected for leaks	
☐	☐	Baghouse Stacks	
☐	☐	Method 9 visible emissions reading taken (see attached)	
☐	☐	EXCESS EMISSIONS - Report Immediately to Management (Explain cause and the steps taken to achieve compliance)	

Incident Record: _____

[redacted]

5- WATER STORAGE, BOOSTER PUMP AND DISTRIBUTION SYSTEM

AM	PM	
☐	☐	Water distribution system is operational and functioning properly

Incident Record: _____

Signature of Responsible Official _____

Print Name and Title: _____

APPENDIX 3

EXCESS VISIBLE EMISSIONS FROM PLANT EQUIPMENT OR DUST COLLECTION SOP

Procedures covered

- Recognizing excess visible emissions
- Notification of excess visible emissions
- Excess visible emissions / Opacity limits summary
- Corrective actions / Preventive measures
- Records

RECOGNIZING EXCESS VISIBLE EMISSIONS

· If you see excess dust coming out of *any* part of the plant it *is* an Excess Visible Emission Event:

1. Stop and identify the source (*i.e.* stack, belt, transfer point, spilled pile, exhaust pipe from mobile equipment, etc.)
2. Alert the production shift plant operator.

NOTIFICATION OF EXCESS VISIBLE EMISSIONS

· Verbal notification to Operations (plant operator)

· Plant operator will assess the situation and alert Maintenance. Corrective actions to be started as soon as possible if needed.

· Shift plant operators will notify M&M of the excess visible emissions event. Once an excess visible emission event has been identified and notified internally, corrective actions will be initiated as soon as practical and no later than 24 hours from identification of the event.

· The following day after the occurrence, a follow-up observation will be conducted by M&M, to verify that the issue has been corrected.

CORRECTIVE ACTIONS / PREVENTIVE MEASURES

· When a malfunction occurs to equipment, emission control devices, continuous monitoring systems, or fugitive emission control systems or enclosures, which result in excess visible emissions, the Maintenance staff is to be notified.

1. Investigation of the reason for the equipment malfunction – to be conducted by Maintenance in coordination with Operations.
2. Evaluation of the situation and necessary follow-up action(s) to return the equipment to normal operating conditions – to be conducted by Maintenance in coordination with Operations.
3. Corrective actions must be initiated within 24 hours of discovery of an excess visible emission event.
4. If needed, equipment shutdown should occur as soon as practical, but not more than 24 hours after discovery if necessary to initiate corrective actions.

RECORDS

· Document problem and corrective actions taken:
  - Shift plant operator will fill out a Excess Visible Emissions form (see below).
  - Completed Excess Visible Emissions form will be turned in to M&M within 48 hours of the Visible Emissions Event.

· Document all related activities including but not limited to the following:
  - Current Work in Progress
  - Response to Malfunction Conditions
  - Planned Work

Excess Visible Emissions Form

This form is to be completed to document all excess visible emissions events

GENERAL INFORMATION		
Date of event:		
Time of the event:		
VISIBLE EMISSIONS EVENT INFORMATION		
Identity of Stack/Emissions Point:		
Related process/equipment:	Yard roads and stockpile	
Related process/equipment: **Date and Time of follow up visual**	Processing area	
	Packaging and maintenance warehouse	
	Finished product silos	
Nature and Cause of Emissions	Process Startup:	

	Process Shutdown:
	Scheduled Maintenance:
	Breakdown:
	Malfunction:
	Emergency:
	Other:

CORRECTIVE ACTIONS		
Response/corrective action taken to remedy the malfunction:		
Date and time corrective actions were initiated and completed:		
Steps taken or procedures suggested to prevent recurrence of the event or malfunction:		

OPERATOR NAME: _____

DATE: _____

APPENDIX 4

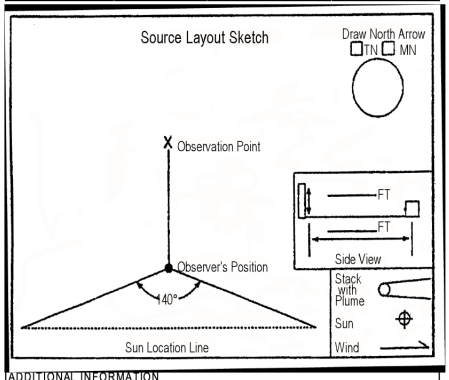
Water Truck Hourly Log 2026

Date	Time	Driver	Date	Time	Driver

APPENDIX 5

EPA METHOD 9 (40 CFR 60 - Appendix A)
VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME		
LOCATION		
LOCATION		
CITY	STATE	ZIP
PROCESS EQUIPMENT		OPERATING MODE
CONTROL EQUIPMENT		OPERATING MODE
DESCRIBE EMISSION POINT		
HEIGHT OF EMISSION POINT		HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER START END
DISTANCE TO EMISSION POINT START END		DIRECTION TO EMISSION PT. (DEGREES (0-360)) START END
VERTICAL ANGLE TO OBSERVATION POINT START END		DIRECTION TO OBSERVATION POINT DEGREES (0-360)) START END
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT START END		
DESCRIBE EMISSIONS START END		
EMISSION COLOR START END		WATER DROPLET PLUME ATTACHED ☐ DETACHED ☐ NONE ☐
DESCRIBE PLUME BACKGROUND START END		
BACKGROUND COLOR START END		SKY CONDITIONS START END
WIND SPEED START END		WIND DIRECTION START END
AMBIENT TEMP START END		WET BULB TEMP RH percent



ADDITIONAL INFORMATION

OBSERVATION DATE	START TIME	END TIME

SEC / MIN	0	15	30	45	COMMENTS
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

OBSERVER'S NAME (PRINT)	
OBSERVER'S SIGNATURE	DATE
ORGANIZATION	
CERTIFIED BY	DATE

APPENDIX 6

ADEQ Excess Emissions Report

Permit Requirement:
The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below:

1. Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XII.A.1.b below.
2. Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XII.A.1.a.i. above.

GENERAL INFORMATION			
Facility Name:	MRI	**Date of Report:**	
Air Quality Control Permit #:			

EXCEEDANCE INFORMATION			
Identity of Stack/Emissions Point:			
Equipment Which Excess Emissions Originated:			
Date Excess Emission Began:		**Time Excess Emission Began:**	
Date Excess Emission Stopped:		**Time Excess Emission Stopped:**	
Duration of Excess Emissions:		**If not known, Expected Duration of Excess Emissions:**	
Was Excess Emissions Corrected Within 72 Hours?	Yes No If no, a compliance schedule must be submitted within 21 days of occurrence		

Nature and Cause of Emissions	Process Startup:
	Process Shutdown:
	Scheduled Maintenance:
	Breakdown:
	Malfunction:
	Emergency:
	Other:

CORRECTIVE ACTIONS	
If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken to prevent the recurrence of such malfunctions:	
Steps taken to mitigate emissions and corrective actions taken, including whether the approved procedures for a planned startup, shutdown, or maintenance activity were followed:	

CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

By my signature; I,
hereby certify that based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Signature of responsible official: Date:

APPENDIX 7

MRI COTTONWOOD SECONDARY PLANT – OPERATION AND MAINTENANCE PLAN – BAGHOUSE and BIN VENT DUST COLLECTORS
JULY 2026

Baghouse and Bin Vent Operation & Maintenance

Baghouse BH-600: Donaldson Model: 484 RF10
Serial number: IG 516885 A

Donaldson recommended pressure drop for acceptable performance: <8" W.C.

Baghouse BH-601: Donaldson Model: 356 RF10
Serial number: 12716310

Donaldson recommended pressure drop for acceptable performance: <8" W.C.

Performance monitoring during operation for both baghouses:

Baghouse stack emissions:

- Baghouse stack emissions must not exceed 10% opacity
- Monitored a minimum of 1x/production shift and recorded on the Shift Inspection/Maintenance form
- If stack opacity exceeds 5% during the shift, a dye test will be performed and media replaced as needed prior to plant start-up for the next production shift
- If opacity is 10% or greater, production will be suspended and a fluorescent dye test and media inspection will be performed and media replaced as needed prior to plant restart

Silo Bin Vents:

Bin vents on silos 5 and 6 will be inspected at a minimum of 1x/production shift to ensure proper operation. If either bin vent is not functioning properly, Maintenance & Management will be notified and repairs will be initiated as soon as practical and prior to that silo being utilized for subsequent production shifts