

Fugitive Dust Control Plan

*Prepared for
Minnesota Steel Industries*



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Attachment O
Minnesota Steel Industries, LLC
Fugitive Dust Control Plan

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1.0 Introduction

Minnesota Steel Industries, LLC (Minnesota Steel) is applying for a total facility permit, including the authorization to construction a new facility and a Part 70 operating permit, which will authorize Minnesota Steel Industries to mine iron ore and to produce finished steel near Nashwauk, Minnesota. As part of the permitting process Minnesota Steel Industries is required to perform a Best Available Control Technology (BACT) analysis. The BACT analysis cites the implementation of a Best Management Practices (BMP) plan for controlling fugitive emissions.

Minnesota Steel Industries is submitting this BMP in conjunction with the air permit application for the facility. The plan is based on dust control plan practices used by the mining industry on the Mesabi Iron Range of northern Minnesota.

2.0 Plan Objectives

The Fugitive Control Plan identifies Minnesota Steel Industries control measures and practices to minimize and control fugitive dust as required by the Title V permit. The plan defines the following:

- Procedures that Minnesota Steel Industries personnel will follow to control emissions
- Fugitive dust levels requiring corrective actions
- Steps that will be followed to bring emissions within appropriate ranges
- Steps that Minnesota Steel Industries will take to demonstrate that corrective procedures are followed and to verify the facility is controlling avoidable fugitive emissions

To meet these objectives, the Fugitive Control Plan:

- Identifies all fugitive emission sources listed in the Title V permit application
- Identifies the primary and contingent control measures and practices to control and minimize fugitive emissions.
- Identifies visible emissions observation and corrective action requirements.
- Identifies fugitive dust control recordkeeping requirements.
- Identifies fugitive dust control notification requirements.
- Describes fugitive dust control training elements.

3.0 Fugitive Emissions Sources

Table 1 lists the fugitive emission sources identified in the Title V permit, briefly describes the measures and practices employed to control fugitive emissions at each source and identifies the fugitive emission sources that require visible emission observation. These sources are further described below.

3.1 Unpaved Roads

Haul road sources subject to the plan include:

- Haul Road Emissions (FS 007). This source involves 205-ton trucks hauling materials on unpaved roads. The materials being hauled include surface overburden and waste rock/lean taconite (hauled between the pit and their respective discharge areas), taconite ore (hauled between the pit and the primary crusher) and cobber reject (hauled from the crushers to its designated stockpile). The haul roads on the site will be approximately 10 miles long and fifty feet wide lanes.
- Service Road Emissions (FS 008). This source involves light vehicles traveling on unpaved roads between the main plant area and the crusher, mining and tailings basin facilities. The service road will be approximately 13 miles long and fifty feet wide.
- Controlling haul road fugitive dust is important for employee safety, equipment maintenance, as well as protecting the air quality of the area. Minnesota Steel Industries is committed to minimizing haul road emissions. Haul road dust suppression activities are described in section 4.

3.2 Paved Roads

Paved road emissions (FS 070) occur on the access road to the concentrator plant parking lot and on the east and west entrances to the main plant area. 2.5 miles of paved road are included in the emission inventory and are assumed to be traveled by cars and light trucks and by freight trucks,

3.3 Stockpiles

Stockpile sources covered by the dust plan include:

- Overburden/Waste Rock Area Wind Erosion (FS 009)
- Cobber Rejects Pile Wind Erosion (FS 012)
- Cobber Rejects Stockpile Wind Erosion (FS 015)
- 120K ton Concentrate Stockpile (FS 020)
- Oxide Product Stockpile Wind Erosion (FS 026)
- DRI Stockpile Wind Erosion (FS 023)
- DRI Remet Bunker Wind Erosion (FS 031)
- Oversize CDRI Bunker Wind Erosion (FS 034)

- Grizzly Stockpile Wind Erosion (FS 045)
- Processed Slag Piles Wind Erosion (FS 067)
- Non-metallic Slag Stockpile Wind Erosion (FS 069)

3.4 Materials Transfer Points

Several fugitive dust sources are related to the transfer of materials in the mining and crushing, concentrator, pelletizer, direct reduced iron, steel mill, and slag processing areas. These sources include:

- Overburden Loadout (FS 002) – transfer of blasted waste rock by shovel to trucks
- Overburden Unloading (Truck) (FS 003) – transfer of blasted overburden by shovel to ore trucks
- Waste Rock Loadout (FS 004) – transfer of blasted waste rock by shovel to ore trucks
- Waste Rock Unloading (Truck) (FS 005) – ore truck unloading of waste rock at the stockpiles
- Crude Ore Loadout (FS 006) – transfer of blasted ore by shovel to ore trucks
- Drop onto Cobber Rejects Pile (FS 011) – transferring of taconite ore from a conveyor onto the Cobber rejects pile.
- Cobber Rejects Pile Loadout (FS 013) – use of a loader and truck to haul the cobber rejects to the cobber rejects stockpile.
- Cobber Rejects Unloading (Truck) (FS 014) – unloading of cobber rejects from a truck to the stockpile.
- Drop onto 120K ton Concentrate Pile (FS 019) – conveyor transfer onto the 120K ton concentrate pile.
- 120K ton Concentrate Stockpile Loadout (FS 021) – transfer of concentrate to a conveyor by use of a loader.
- Oxide Product Stockpile Stacking Conveyor (FS 025) – conveyor transfer of oxide product onto the oxide product stockpile.
- Oxide Product Loadout to Railcars (FS 027) – transfer of oxide product to either the oxide feed system or railcars by use of a loader.
- Oxide Fines Bin Discharge (FS 028) – conveyor transfer of oxide fines into the oxide fines bunker.
- Oxide Fines Return to Re grind Mill (FS 029) – transfer of oxide fines to the re grind mill by use of a loader.
- DRI Reclaim to Meltshop/Railcar (FS 024) – DRI product pickup from stockpile by front end loader.
- Railcar Loading (FS036) –FEL railcar loading of DRI product for periodic sale to off-site customers.
- DRI Drop into Remet Bunker (FS 030) – conveyor transfer of off-spec DRI from a conveyor into the Remet Bunker.

- DRI Remet Return to DRI Reclaim Hopper (FS 032) - transfer of off-spec DRI from the remet bunker to the oxide feed system by use of a loader.
- Oversize CDRI Drop into Bunker (FS 033) – conveyor transfer of cold DRI from a conveyor into a bunker.
- Oversize CDRI to EAF by Scrap Bucket (FS 035) – transfer of oversize cold DRI to the EAF by use of a loader/scrap bucket.
- DRI Stockpile Stacking Conveyor (FS 022) – conveyor transfer of DRI from a conveyor onto the periodic DRI stockpile.
- CDRI Drop into Line I EAF Feed Collection Chute (FS 037) – conveyor transfer of CDRI into the EAF feed collection chute.
- CDRI Drop into Line II EAF Feed Collection Chute (FS 038) - conveyor transfer of CDRI into the EAF feed collection chute.
- Lump Lime/Carbon Unloading (FS 039) - unloading of meltshop additives from a truck onto a conveyor.
- Lime/Carbon Bucket Elevator (FS 040) – transfer of material from the bucket elevator to a conveyor.
- Lime/Carbon Tripper Conveyor Drop (FS 041) – conveyor transfer of melt shop additives from a conveyor into day bins.
- Slag Dumping (FS 042) – molten slag transfer from slag pots to the slag pits.
- Digging Pits/Breaking Slag (FS 043) – retrieval and breaking of solidified slag prior to processing.
- Loading Grizzly Stockpile (FS 044) – loader activity to move slag material from the slag dumping station to the grizzly stockpile.
- Grizzly Stockpile Loadout (FS 046) and Grizzly Loading (FS 047) – loading slag material from the grizzly stockpile into the grizzly.
- Grizzly Oversize to Slag Dumping (FS 048) – transfer of material from the grizzly back to the slag dumping area for additional size reduction.
- Grizzly/Feeder (FS 049) – transfer of broken slag material from the grizzly onto a conveyor.
- Slag Transfer Conveyor (FS 050) – transfer of slag material from a conveyor to the slag screen.
- Slag Screen (FS 051) – transfer of slag material from the slag screen to either a conveyor or the slag crusher.
- Screened Slag Conveyor (FS 052) – conveyor to conveyor transfer of screened slag.
- Screened Slag Cobber (FS 053) – separation of screened slag into metallic and non-metallic fractions.
- Non-metallics Stacker No.1 (FS 054) and Non-metallics Stacker No. 2 (FS 055) – conveyor transfer of non-metallic slag materials to a stockpile.
- Metallics Stacker No.1 (FS 056) and Metallics Stacker No. 2 (FS 057) – conveyor transfer of metallic slag materials from two conveyors to a stockpile.
- Slag Crusher (FS 058) – transfer of crushed slag from the slag crusher to a conveyor.

- Crusher By-pass Conveyor (FS 059) – conveyor to conveyor transfer of slag material.
- Crushed Slag Cobber (FS 060) – separation of crushed slag into metallic and non-metallic fractions.
- Crushed Metallics Stacker (FS 061) – transfer of metallic material from a conveyor to a stockpile.
- Crushed Non-metallics Screen (FS 062) - transfer of non-metallic slag material from the screen to a conveyor.
- Crushed Non-metallics Stacker No.1 (FS 63) and Crushed Non-metallics Stacker No. 2 (FS 064) – transfer of crushed non-metallic materials from two conveyors to a stockpile.
- Metallics Return to EAF (FS 065) – transfer by loader of crushed metallic slag from a stockpile to the EAF feed collection chutes.
- Non-metallics Loadout (FS 066) – transfer by loader of crushed non-metallic slag material from a stockpile to trucks.
- Non-metallics Unloading to Off-site Sale or On-site Stockpile (FS 068) - the unloading of non-metallic material from a truck to an on-site stockpile.

3.5 Tailings Basin

There are four fugitive sources associated with the tailings basin:

- Tailings Basin Wind Erosion (FS 016) – tailings basin beach area that is exposed to wind erosion prior to dust control measures.
- Dozer activity at Tailings Basin (FS 017) – dike building and maintenance.
- Grading at Tailings Basin (FS 018) – dike building and maintenance.
- Service and access roads at the tailings basin (FS 008) – light vehicle traffic for personnel and maintenance

4.0 Operating Practices and Control Measures

The operating practices and control measures that will be implemented and recorded for the fugitive dust sources identified in Section 3 are described below. Minnesota Steel will train and assign appropriate personnel the responsibility to control fugitive emissions in their areas of responsibility.

4.1 Haul Roads and Service Roads (FS 007, FS 008)

Primary Controls: Watering and other dust suppressant application, road maintenance including crushed rock surfacing, grading, and scarifying.

Contingent Controls: Increased application of primary controls.

Practices: The operating practices Minnesota Steel Industries will use include, but are not limited to the following:

- Minnesota Steel Industries will perform daily visible emissions checks on all active haul roads at the beginning shifts that start during daylight hours. Haul truck drivers will also observe for visible emissions during the shift and report by radio as needed. If visible emissions are observed during the visible emissions check or are reported by an equipment operator, Minnesota Steel Industries will investigate the condition and take appropriate corrective action to address the visible emissions. The observation of visible emissions does not, in and of itself, demonstrate noncompliance with any applicable requirement but is a signal to trigger investigation and, if necessary, reasonable and appropriate corrective action.
- Minnesota Steel Industries will maintain daily visible emission check reports based on the visible emissions checks. An exception report will be filed if visible emissions cannot be controlled by usual control strategies. Examples of such exceptions may be water wagon breakdown, extraordinary weather events (extremely hot, dry) etc. Employees will inform their supervisor of an exception condition at the end of their shift so that the report can be filled out.
- In non-freezing conditions, dust will be controlled by the following strategies:
 - Water will be applied to the active haul roads during the day and afternoon shifts, as required by weather, traffic, and road conditions. Water trucks will be dispatched and unpaved roads will be watered if excessive dusting is encountered. Some weather conditions during the summer months, such as low humidity and high winds, require a higher water frequency. The frequency and amount of water application is adjusted depending on weather conditions.
 - Haul roads will be graded as required.
 - Crushed and screened rock will be added to the road surface to minimize fugitive dust generation.
 - Liquid chemical dust suppressant may also be applied to some high traffic areas for dust control as needed.
- In freezing conditions, dust will be controlled by the following strategies:
 - Solid or liquid chemical dust suppressant will be applied to the haul road in late fall prior to freeze up.

- Haul roads will be scarified as necessary.
- New haul road material will be applied as needed
- Minnesota Steel Industries will maintain adequate watering capacity, including backup in the event of breakdown, to control dust during typical summer conditions.
- Minnesota Steel Industries will maintain daily watering records and chemical application records. The records will include the watering truck identification number, the number of water loads applied per shift and the operator name. Minnesota Steel Industries will equip each watering truck with the same GPS monitoring system used by the other haul trucks.
- Minnesota Steel Industries will rely on National Weather Service (NWS) reports from the Hibbing Airport to provide a record of daily precipitation and humidity, high and low temperature, wind speed and direction readings, and dew point.
- Vehicle miles traveled (VMT) will be calculated periodically based on mine production and a record will be kept on site. This information will be sent to the MPCA annually for incorporating into the annual emissions inventory.
- Minnesota Steel Industries will evaluate new technologies or methods in dust suppression for their technical and economic feasibility as they become commercially available.

Recordkeeping: Minnesota Steel Industries will maintain the following records on site:

- Haul Road Fugitive Emissions Exception Report (FS 007 and FS 008)
- Daily Watering Reports
- Daily weather information as reported by the National Weather Service at the Hibbing Airport.
- The application of chemical dust suppressants will be recorded and reported from Minnesota Steel Industries' purchase records.
- Tracking and calculation of annual vehicle miles traveled (VMT) will be based on mine production.

4.2 Paved Roads (FS 070)

Primary Controls: Street sweeping as needed.

Contingent Controls: Increased application of primary controls.

Practices: The operating practices Minnesota Steel Industries will use include, but are not limited to sweeping or washing of the paved roads as needed to prevent fugitive emissions.

Recordkeeping: Minnesota Steel Industries will maintain the following records on site:

- Tracking and calculation of annual vehicle miles traveled (VMT) will be based on employee counts and estimated periodically.

4.3 Stockpiles (FS 009, FS 012, FS 020, FS 023, FS 026, FS 029, FS 042, FS 052, FS 076)

Primary Controls: Natural moisture content of stockpiled materials

Contingent Controls: Water spray as needed during non-freezing conditions.

Practices: The operating practices Minnesota Steel Industries will use include, but are not limited to the following:

- Minnesota Steel Industries will perform visible emissions checks on all stockpiles listed above once per day during daylight hours.
- Minnesota Steel Industries will minimize the drop distances onto each stockpile as far as practicable.

Recordkeeping: Minnesota Steel Industries will maintain the following records on site:

- Daily Visible Emissions Checklists (FS 012, FS 020, FS 023, FS 026, FS 029, FS 042, FS 052, FS 074 and FS 076)
- Material Handler Report (FS 012, FS 020, FS 023, FS 026, FS 029, FS 042, FS 052, FS 074 and FS 076)

4.4 Material Transfer Points (FS 002, FS 003, FS 004, FS 005, FS 006, FS 011, FS 013, FS 014, FS 019, FS 021, FS 022, FS 024, FS 025, FS 027, FS 028, FS 030, FS 031, FS 032, FS 033, FS 034, FS 035, FS 037, FS 038, FS 040, FS 041, FS 043, FS 044, FS 045, FS 046, FS 047, FS 048, FS 049, FS 050, FS 051, FS 053, FS 054, FS 055, FS 056, FS 057, FS 058, FS 059, FS 060, FS 061, FS 062, FS 063, FS 064, FS 065, FS 066, FS 067, FS 068, FS 069, FS 070, FS 075)

Primary Controls: Natural moisture content of materials, minimized drop distances when possible.

Contingent Controls: None.

Practices: The operating practices Minnesota Steel Industries will use include, but are not limited to the following:

- Minnesota Steel Industries will perform visible emissions checks on all material transfer points listed above once per day during daylight hours.

Recordkeeping: Minnesota Steel Industries will maintain the following records on site:

- Daily Visible Emissions Checklists (FS001, FS 011, FS 014, FS 016, FS 017, FS 019, FS 020, FS 022, FS 025, FS 042, and FS 070.)
- Material Handler Report (FS 002, FS 003, FS 004, FS 005, FS 006, FS 010, FS 013, FS014, FS 021, FS 027, FS 042, FS 046, FS066, and FS068)

4.5 Tailings Basin (FS 008, FS 016, FS 017, FS 018)

Primary Controls: Beach area minimization, mulching, vegetation, systematic dumping.

Contingent Controls: Change tailings discharge points.

Practices: The operating practices Minnesota Steel Industries will use include, but are not limited to the following:

- During freezing months (typically late November through early April), freshly deposited tailings freeze and are covered with snowfall which minimizes dust emissions. Mulching during the winter, especially when snow is present, will be done to reduce fugitive dust lift-off. When the snow melts the mulch forms a mat on the tailings thereby minimizing emissions.
- Tailings deposited during winter will be vegetated in early spring before the tailings completely thaw.
- Beach areas developed during non-freezing months (typically early April through late November) will be treated (i.e. mulched applied, vegetated, or application of dust suppressants) as soon as practical to prevent large areas of exposed beach to dry out, especially during freeze drying conditions or hot, windy conditions. Dike construction techniques and water level management will help minimize exposed beach areas, which will be treated in a timely manner to limit the risk of dry conditions on the beaches. Ideally fresh beach will be treated within two weeks, but these activities are dependent on weather conditions and basin configurations. Mulch will be staged on-site to minimize the time necessary for it to be applied once conditions are suitable.
- During construction and, to the extent possible during operations, berms and benches will be graded to gentle slopes to reduce wind resistance, which will limit the potential for fugitive dust emissions.
- Minnesota Steel will maintain a systematic discharge schedule. The tailings basin will be designed with multiple cells. Tailings will typically be discharged to only one cell at a time. The idle cells will be vegetated and will remain undisturbed for long periods of time (up to 2 years) thereby minimizing dust emissions from those portions of the tailings basin. The idle cells will be revegetated, if necessary, to maintain adequate vegetation for dust control purposes.
- In addition, the dust suppressing objectives for the active cell include:
 - Maintenance of adequate freeboard around the dike perimeter
 - High interior water levels by maintaining unobstructed gravity flow of slurry toward the decant pool (interior)
 - Adequate pumping capacity allowing for discharge to completely encircle the dike perimeter creating a strong dike and adequate beach to protect the dike.
 - If high winds are forecast during the non-freezing months, either the tailings discharge will be moved or clear water will be pumped onto beach areas that are exposed and are determined to be dry.
- As needed, Minnesota Steel Industries will apply water or chemical dust suppression materials to the tailings basin service roads.

5.0 Recordkeeping

The following records will be maintained at Minnesota Steel Industries for the period specified by the Title V permit:

- Daily Visible Emissions Checks. Due to the large number of these reports that are generated on a daily basis (one copy of each report per day), Minnesota Steel Industries commits to retaining these records for a period of no less than one year.
- Primary Crusher Attendant Report (FS 065)*
- Crushing Control Room Report (FS 065 – 069)*
- Concentrator Material Handler Report (FS 011 – 018)*
- Pelletizer Material Handler Report (FS 019 – 027)*
- Direct Reduced Iron Material Handler Report (FS 028 – 045)*
- Steel Mill Material Handler Report (FS 046 – 048)*
- Slag Processing Material Handler Report (FSs 049 – 076)*
- Daily Watering Reports Haul Road Fugitive Emissions Exception Reports *
- Daily Weather Information Reports (from National Weather Service at Hibbing Airport)*
- Employee Training Records*
- MPCA Letter of Approval of this Fugitive Control Plan
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- * These records are anticipated to be electronic reports generated from the plant process control systems.

6.0 Training

An integral part of the implementation of the Fugitive Control Plan is appropriate training for the personnel involved. Training will be provided for all levels of personnel at the facility and will cover a subset of the following subjects as needed for individual levels of responsibility:

- Employee Responsibilities
- Forms and Record Keeping
- Reporting
- Corrective Actions
- Maintenance
- Work Orders
- Dust Observation and Visibility Training
- Weather Observations
- Location of Information

Minnesota Steel Industries will provide training in the areas listed above to new employees as their job function demands. Refresher training will be provided to existing employees on an annual basis.

Tables

**Table 1
List of Fugitive Sources**

Fugitive Source ID	Fugitive Source Description	Area	Operating/Control Practice	Daily Visible Emissions Check Required?
FS 001	Drilling	Mining and Crushing	None	Yes
FS 002	Overburden Loadout	Mining and Crushing	None	No
FS 003	Overburden Unloading (Truck)	Mining and Crushing	None	No
FS 004	Waste Rock Loadout	Mining and Crushing	None	No
FS 005	Waste Rock Unloading (Truck)	Mining and Crushing	None	No
FS 006	Crude Ore Loadout	Mining and Crushing	None	No
FS 007	Haul Road Emissions	Mining and Crushing	Watering and other dust suppressant application; road maintenance	Yes
FS 008	Service Road Emissions	Mining and Crushing	Watering and other dust suppressant application; road maintenance	Yes
FS 070	Paved Road Emissions	Mining and Crushing	Watering and other dust suppressant application; road maintenance	Yes
FS 009	Overburden/Waste Rock Area Wind Erosion	Mining and Crushing	None	No
FS 010	Overburden/Waste Rock Bulldozer	Mining and Crushing	natural moisture; water spray as needed during non-freezing conditions	No
FS 011	Drop onto Cobber Rejects Pile	Concentrator	natural moisture; water spray as needed during non-freezing conditions	Yes
FS 012	Cobber Rejects Pile Wind Erosion	Concentrator	Limited pile size; natural moisture; water spray as needed during non-freezing conditions	No
FS 013	Cobber Rejects Pile Loadout	Concentrator	natural moisture; water spray as needed during non-freezing conditions	No

**Table 1
List of Fugitive Sources**

Fugitive Source ID	Fugitive Source Description	Area	Operating/Control Practice	Daily Visible Emissions Check Required?
FS 014	Cobber Rejects Unloading (Truck)	Concentrator	natural moisture; water spray as needed during non-freezing conditions	No
FS 015	Cobber Rejects Pile Wind Erosion	Concentrator	Limited pile size; natural moisture; water spray as needed during non-freezing conditions	No
FS 016	Tailing Basin Wind Erosion	Concentrator	Natural moisture of tailings; revegetation	Yes
FS 017	Dozer Activity at Tailings Basin	Concentrator	Natural moisture of tailings	Yes
FS 018	Grading at Tailings Basin	Concentrator	Natural moisture of tailings	No
FS 019	Drop onto 120K ton Concentrate Stockpile	Pelletizer	natural moisture; water spray as needed during non-freezing conditions	Yes
FS 020	120K ton Concentrate Stockpile Wind Erosion	Pelletizer	natural moisture; water spray as needed during non-freezing conditions	Yes
FS 021	120K ton Concentrate Stockpile Loadout	Pelletizer	natural moisture; water spray as needed during non-freezing conditions	No
FS 025	Oxide Product Stockpile Stacking Conveyor	Pelletizer	natural moisture; water spray as needed during non-freezing conditions	Yes
FS 026	Oxide Product Stockpile Wind Erosion	Pelletizer	natural moisture; water spray as needed during non-freezing conditions	No
FS 074	Pelletizer Building, Natural Draft	Pelletizer	Partial enclosure (Pelletizer building)	No
FS 027	Oxide Product Loadout to Railcars	Pelletizer	natural moisture; water spray as needed during non-freezing conditions	No
FS 028	Oxide Fines Bin Discharge	Direct Reduced Iron (DRI)	natural moisture; water spray as needed during non-freezing conditions	No
FS 029	Oxide Fines Return to	Direct Reduced	natural moisture; water spray as needed during non-freezing	No

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List of Fugitive Sources**

Fugitive Source ID	Fugitive Source Description	Area	Operating/Control Practice	Daily Visible Emissions Check Required?
	Regrind Mill	Iron (DRI)	conditions	
FS 030	DRI Drop into Remet Bunker	Direct Reduced Iron (DRI)	natural moisture; water spray as needed during non-freezing conditions	No
FS 031	DRI Remet Bunker Wind Erosion	Direct Reduced Iron (DRI)	Limited pile size; natural moisture; water spray as needed during non-freezing conditions	No
FS 032	DRI Remet Return to DRI Reclaim Hopper	Direct Reduced Iron (DRI)	natural moisture; water spray as needed during non-freezing conditions	No
FS 033	Oversize CDRI Drop into Bunker	Direct Reduced Iron (DRI)	natural moisture; water spray as needed during non-freezing conditions	No
FS 034	Oversize CDRI Bunker Wind Erosion	Direct Reduced Iron (DRI)	Limited pile size; natural moisture; water spray as needed during non-freezing conditions	No
FS 035	Oversize CDRI to EAF by scrap bucket	Direct Reduced Iron (DRI)	natural moisture; water spray as needed during non-freezing conditions	No
FS 022	DRI Stockpile Stacking Conveyor	Direct Reduced Iron (DRI)	natural moisture; water spray as needed during non-freezing conditions	Yes
FS 023	DRI Stockpile Wind Erosion	Direct Reduced Iron (DRI)	natural moisture; water spray as needed during non-freezing conditions	No
FS 024	DRI Reclaim to Meltshop/Railcar	Direct Reduced Iron (DRI)	natural moisture; water spray as needed during non-freezing conditions	Yes
FS 036	Railcar Loading	Direct Reduced Iron (DRI)	natural moisture; water spray as needed during non-freezing conditions	Yes
FS 037	CDRI Drop into Line I EAF Feed Collection Chute	Direct Reduced Iron (DRI)	natural moisture; water spray as needed during non-freezing conditions	Yes
FS 038	CDRI Drop into Line II EAF Feed Collection Chute	Direct Reduced Iron (DRI)	natural moisture; water spray as needed during non-freezing conditions	No
FS 039	Lump Lime/Carbon	Steel Mill	natural moisture; water spray as needed during non-freezing	No

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List of Fugitive Sources**

Fugitive Source ID	Fugitive Source Description	Area	Operating/Control Practice	Daily Visible Emissions Check Required?
	Unloading		conditions	
FS 040	Lime/Carbon Bucket Elevator	Steel Mill	natural moisture; water spray as needed during non-freezing conditions	No
FS 041	Lime/Carbon Tripper Conveyor Drop	Steel Mill	natural moisture; water spray as needed during non-freezing conditions	No
FS 042	Slag Dumping	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	Yes
FS 043	Digging Pits/Breaking Slag	Slag Processing	Watering	No
FS 044	Loading Grizzly Stockpile	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No ¹
FS 045	Grizzly Stockpile Wind Erosion	Slag Processing	Limited pile size; natural moisture; water spray as needed during non-freezing conditions	No
FS 046	Grizzly Stockpile Loadout	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 047	Grizzly Loading	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 048	Grizzly Oversize to Slag Dumping	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 049	Grizzly/Feeder	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 050	Slag Transfer Conveyor	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 051	Slag Screen	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 052	Screened Slag Conveyor	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 053	Screened Slag Cobber	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No

**Table 1
List of Fugitive Sources**

Fugitive Source ID	Fugitive Source Description	Area	Operating/Control Practice	Daily Visible Emissions Check Required?
			conditions	
FS 054	Non-metallics Stacker No.1	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 055	Non-metallics Stacker No.2	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 056	Metallics Stacker No.1	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 057	Metallics Stacker No.2	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 058	Slag Crusher	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 059	Crusher By-pass Conveyor	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 060	Crushed Slag Cobber	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 061	Crushed Metallics Stacker	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 062	Crushed Non-metallics Screen	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 063	Crushed Non-metallics Stacker No. 1	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 064	Crushed Non-metallics Stacker No. 2	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 065	Metallics Return to EAF	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 066	Non-metallics Loadout	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 067	Processed Slag Piles	Slag Processing	Limited pile size; natural moisture; water spray as needed	No

**Table 1
List of Fugitive Sources**

Fugitive Source ID	Fugitive Source Description	Area	Operating/Control Practice	Daily Visible Emissions Check Required?
	Wind Erosion		during non-freezing conditions	
FS 068	Non-metallics Unloading to Off-site Sale or On-Site Stockpile	Slag Processing	natural moisture; water spray as needed during non-freezing conditions	No
FS 069	Non-metallic Slag Stockpile Wind Erosion (in permit area)	Slag Processing	Limited pile size; natural moisture; water spray as needed during non-freezing conditions	No