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| Effective: 6/3/21 | Document Owner: Sarah Blanzy | | |

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I. PURPOSE/INTENT

This document identifies practices Verso Corporation's Quinnesec Mill follows to ensure control of fugitive dust as required by Source-Wide Conditions, condition IX.1 of the mill's Renewal Operating Permit (ROP).

The intent of this program is to ensure the Quinnesec Mill complies with the conditions of the permit. It also provides a means to communicate expectations to mill and contract personnel to ensure compliance on an ongoing basis, in support of quarterly and annual certification reporting.

II. SCOPE

The practices identified here apply to fugitive dust sources directly controlled by the Quinnesec Mill, or contractors and tenants (i.e. Specialty Minerals Inc.) located on the mill site.

While the mill will make every reasonable attempt to control fugitive dust on the mill site, it is recognized that situations will arise where a reasonable level of control is not practical due to acts of nature (i.e. excessive high winds), or unique conditions not foreseen by this plan. Mill personnel will take responsive steps as appropriate under these situations.

III. PRACTICE

- A. Overview
 - 1. The Quinnesec Mill manufactures bleach kraft pulp and coated paper. Support facilities for the mill include woodyard, chemical preparation and recovery, power plant, water treatment and wastewater treatment plant operations. The site also contains a landfill, contractor area, and a tenant facility for production of precipitated calcium carbonate.
 - 2. The plan addresses the following areas:
 - Outside Bulk Storage Piles
 - Transport and Handling of Bulk Materials
 - Landfill
 - Outdoor Conveyor Systems
 - Roadways and Lots
 - Manufacturing Activities



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B. Outside Bulk Storage Piles

1. Coal

Coal is delivered to the mill by self-unloading trucks. The coal is screened for fine removal prior to shipment, and handled minimally on-site to minimize the amount of fines created. The coal is unloaded directly onto the pile, which is located on a 275 ft. x 200 ft. asphalt pad. This method results in a maximum drop distance of approximately 5 ft. from the dump box. Coal spilled by the loader during reclaiming is cleaned up routinely during the day. The precipitation that falls on the pad is collected in a storm pond retention basin which is routinely pumped to the wastewater treatment plant.

2. Woodchips

Woodchips are stored on a 500 ft. x 400 ft. concrete base pad. Chips are either produced on the mill site or brought in by truck. 90-95% of the chips are produced on site. These chips are screened before transport to the digester to remove fines, such as sawdust and shives.

The chips produced on-site are conveyed to the piles pneumatically. The outlets of the blowing systems have adjustable deflectors. These are set to allow chips to be blown down onto the pile. This minimizes dusting potential. Normally stock piles of chips are kept on the pad minimizing the drop distance between the discharge and the pile.

Chips brought in from an outside source are unloaded by a hydraulic truck dumper. The drop distance is approximately 5 ft. A 10 ft. high wall reduces wind effect. A chip dozer or front-end loader is used to move the chips onto the chip pile. The entire process is performed on the concrete pad described earlier.

3. Wood Refuse

Wood refuse is stored on-site for use as boiler fuel. This consists of bark, oversize and whole-tree chips, and other unusable wood material.

It is either generated by woodyard operation or brought in from off-site. The material generated in the woodyard is brought to the processing building by a series of covered conveyors. The off-site material is unloaded by a truck dump into an underground reclaimer. It is also transported by a covered conveyor. All wood refuse is hogged to achieve a more uniform particle size. The material is then conveyed to a 225 ft. x 80 ft. concrete pad or a 150 ft. x 480 ft. blacktop pad



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for storage. Drop distance from the conveyor to the pad is 30 ft. Normal drop is usually much less due to the refuse stockpile under the discharge chute.

- C. Transport and Handling of Bulk Material
 - 1. The following bulk dry materials are transported on the mill site by truck or railcar:
 - Purchased Lime
 - Sodium Carbonate
 - Talc
 - Coal
 - Woodchips and Woodwaste
 - Fly ash
 - Starch
 - Lime Rejects
 - 2. The measures to be used for controlling fugitive dust resulting from transporting the above materials are listed below:
 - Truck traffic on mill roads is restricted to a speed limit of 15 35 MPH depending upon the location and potential for dust generation.
 - Purchased lime, sodium carbonate, talc and starch are all transported in either sealed hopper trucks or railcars to prevent any material loss.
 - Fly ash and Lime Rejects are transported to the landfill in trucks with leakproof tailgates. Fugitive emissions from fly ash are controlled by wetting the ash from the Waste Fuel Boiler as it is discharged into the roll-off boxes. Truck speed is further minimized as necessary (below posted) to reduce dusting.
 - Wood chips and coal are transported in covered trailers.
 - Wood waste is mixed with high moisture or large size material to minimize fugitive emissions.
 - 3. The following procedure is used to minimize fugitive dust when handling burnt lime rejects from the Lime Kiln:
 - The lime loading box is placed under the kiln near the building to minimize the effects of wind during loading.
 - The box must be loaded while on the ground, not on the roll-off truck.
 - The loader bucket is filled no more than $\frac{3}{4}$ full.
 - The bucket is dumped carefully and slowly to minimize dusting.
 - The box is filled no more than ³/₄ full to control dusting on transport.



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D. Landfill Operations

- 1. Dry materials (i.e. flyash, rejected lime) are dumped into the landfill in pile arrangement (maximum drop of 5 ft.) to minimize the amount of exposed surface area.
- 2. Other materials that are transported to the landfill that have the potential to dry and become airborne (i.e. lime mud) are dumped to minimize surface area.
- 3. To reduce potential for fugitive dust, materials of higher moisture (sludge, dregs, slaker grit) are intermixed with dry material.
- 4. The landfill paved roads are maintained as a means to minimize vehicle traffic airborne dust generation and the roads are swept on an as needed basis as part of normal operations.
- E. Outdoor Conveying
 - 1. Materials transported on outdoor conveyor systems are listed below:
 - Woodchips (screened and unscreened)
 - Wood refuse (bulk, oversize chips, fines, etc.)
 - Coal (uncrushed and crushed)
 - 2. All outside conveyor systems are completely enclosed with top covers. This prevents the escape of fugitive emissions. Wood wastes and coal that may spill at transfer points are reclaimed by bucket loader and mixed with other higher moisture and coarse material to minimize potential for suspension. A high level of housekeeping is maintained, with regular cleaning.
- F. Woodyard Unloading Pads, Roads, and Parking Lots
 - 1. There are 11.6 miles of roadway on the mill site. Of that, only 2.5 are crushed stone. The rest of the roads are either concrete or asphalt. In addition, the unloading and reclaim areas for the woodyard and waste fuel storage operation consist of concrete or asphalt pads. The mill parking lot is also asphalt.
 - Cleaning, watering, and/or application of dust suppressant on mill roadways, parking lots, and process areas where dust has accumulated is performed by contract services as needed.



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- 2. The gravel roads are located where sparse vehicle traffic is expected. These areas include the river intake and outfall sites, storm pond, and strong waste pond. Dust control measures for these areas are listed below:
 - A posted speed limit of 20 MPH is specified for gravel roads.
 - Water or a dust suppressant (i.e. calcium chloride) will be applied as necessary during dry weather to control dust.
 - The roads will be graded as necessary to maintain a compacted surface.

G. Manufacturing Activities

- 1. Manufacturing activities that have the potential for fugitive emissions are equipped with particulate control equipment. These processes, the control equipment and additional dust control measures are detailed in this section.
- 2. Coal Crushing and Transport

The first bag house collects dust from all transfer points before and after the crusher. A second bag house collects dust from the transfer points at and before the boiler coal silo. The baghouses are part of the coal conveyor interlocks. The conveyors cannot be used to transport coal if the baghouses are not operating. In addition to these measures all coal conveyors are completely enclosed with a sealed cover.

3. Wood Refuse Hog

As noted earlier, all wood waste used as boiler fuel is hogged to provide for more uniform sized material. All conveyors used for hog fuel transfer are covered to minimize fugitive emissions. The baghouse which handles the transfer points or the coal silo feed conveyors also handles the wood refuse surge bin supply conveyor.

4. Chip Screen

A bag filter dust collection system is used to remove dust generated at various points throughout the screening process. The exhaust from the rechipper blower system cyclone is handled by the chip screen bag house.

The unscreened and screened chips are handled on covered conveyors to minimize dusting. Fines and oversize material, which are not rechipped, are discharged via covered conveyors to collection areas for disposal. These areas have walls on three sides to facilitate clean-up and minimize blowing material. These piles are cleaned up and either reprocessed or hauled to the landfill for disposal daily.



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5. Lime Kiln and Recausticizing

This area includes the equipment necessary to reduce particulate emissions from the purchased lime unloading and handling operations. A baghouse handles the emissions associated with unloading of purchased lime from trucks to the storage silo. This collection system also ensures fugitive dust is minimized in the operating area.

6. Starch Unloading

Starch is brought on site in sealed rail cars. The starch is conveyed pneumatically into three silos. Each of the silos is equipped with a baghouse filter. These filters remove any entrained particulates from the silo exhaust stream.

IV. RESPONSIBLITIES

- A. Operating departments are responsible for maintaining a high level of housekeeping in their areas, and ensuring fugitive dust control practices and equipment are maintained, to minimize the potential for fugitive dust issues.
- B. Operating departments are responsible for conducting routine outdoor rounds to assure that fugitive dust is under control, and that appropriate notification is made (contract service and environmental) when fugitive dust conditions warrant.
- C. Individuals noticing abnormal fugitive dust conditions are responsible for notifying the appropriate operating area.
- D. Actions taken to address fugitive dust concerns must be expedited to ensure compliance with these requirements.
- E. Environmental personnel, in conjunction with the operating department, are responsible for determining if a deviation from the ROP exists due to a fugitive dust issue.
- F. Specialty Minerals, Inc. (SMI) is responsible assuring for conducting routine rounds and maintaining fugitive dust control practices and equipment in their area.



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Document Revisions

| Date | Revision | Reviser |
|----------|--|---------------|
| 2/13/02 | Original document – no revisions This program was | |
| | approved by the Michigan Department of Environmental | |
| | Quality (MDEQ) on February 13, 2002. | |
| 6/10/08 | Original DMS version – no revisions | |
| 3/19/19 | Changed document owner to Katie Tomasoski; Added | Paula LaFleur |
| 5/19/19 | blacktop pad to section III.B.3 | |
| 12/12/19 | Added revisions table | Paula LaFleur |
| | Changed document owner to Sarah Blanzy; added Section | Paula LaFleur |
| 6/3/21 | III.C.3 for controlling dust from lime handling; other minor | |
| | clarifications. | |

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