

Operating Program to Control Fugitive Dust

Packaging Corporation of America
2246 Udell Street
Filer City, MI 49634

Updated:

May 19, 2021

Uncontrolled Emissions of Fugitive Dust

The following table lists the calculated potential uncontrolled emissions of fugitive dust for the Packaging Corporation of America Filer Mill:

PM Emissions (TPY)	Source
12.21	Material Handling
2.60	Unpaved Roads
7.09	Paved Roads
0.02	Sand Silo
0.85	Wind Erosion

The supporting calculations and data tables are included in the appendix. These figures represent the maximum potential uncontrolled emissions from the mill. Material handling emissions were calculated using 2015 throughput and silt content measured onsite. The average wind speed was pulled from the 2012-2017 dataset. Unpaved road and paved road emissions were calculated using the 2012 vehicle miles traveled. Wind erosion emissions were chosen by comparing emissions from 2012-2017 and using the highest emission.

The uncontrolled emissions of fugitive dust are less than 50 tons per year from storage piles and 100 tons per year from all sources. Therefore, Rule 324.5524(3)(i) is not applicable to the facility.

Material Storage Piles

The mill has outdoor storage piles of logs, chips, bark, tire derived fuel (TDF), and bales of recycle paper.

Timber handling machines are used to unload logs from trucks and to transport them to storage piles, and then to the mill for processing.

Chip trucks are unloaded in a chip dumper that elevates the truck into a near-vertical position so the chips can fall out by gravity. Front-end loaders transport chips for storage and for processing. Front-end loaders also transport bark that has been removed from logs.

TDF is transported by front-end loader from pile to feed bin.

Forklift trucks are used to unload bales of waste paper from trucks and transport them to storage piles and then to the mill for processing. Waste paper bales are tightly compacted with large individual pieces. Fugitive dust emissions from these piles are considered negligible.

Minimum drop heights are used in all unloading and transfer operations. Spills are cleaned up promptly.

Roads, Parking Lots, and Traffic Areas around Storage Piles

The mill has both paved and unpaved roads, paved and unpaved parking lots, and paved and unpaved traffic areas around storage piles.

In addition to the traffic that serves outdoor storage piles, there is some other regular traffic:

- Finished paper product from inside the mill is loaded into rail cars or trucks.
- Primary sludge dumpsters are hauled to a landfill from Building 56 or the bin 115 by truck.
- Secondary sludge is hauled either for land application or to a landfill from secondary treatment by truck.
- Solid waste is occasionally hauled to or from Bin #115 by truck.
- Sand is hauled to the sand silo for Boiler 5 by truck
- TDF and Soda Ash hauled by truck
- In addition, there is traffic from maintenance activities and general operations.

Traffic in the mill is limited to 10 miles per hour. Signs are posted.

Unpaved surfaces are inspected frequently and dust suppressants are applied by a contractor as necessary to prevent fugitive dust emissions. A typical application rate is 2000 gallons of 28% calcium chloride per mile of two-lane road. Records are kept of purchase orders for dust suppressants.

Paved surfaces are also inspected frequently and cleaned with a street sweeper as necessary to prevent fugitive dust emission. This is typically done during or shortly after a rain to minimize sweeper dust. Records are maintained of paved surface sweeping.

The mill also has a wash-up building where vehicles are cleaned as necessary.

The mill operates a weather station for the National Weather Service and maintains daily record of precipitation.

Fugitive Dust Control Equipment for Chip Handling

Chip Handling is covered by EUWOODCHIPTRAN in the Renewable Operating Permit (ROP).

Wood chips are received by truck or they may be made onsite by chipping logs. They are screened and transferred to chip bins in the mill. Chip transfer operations involve blowing, belt conveyors, and front-end loaders. There are cyclones at the blower discharge points.

The ROP requires the mill to perform non-certified visible emissions observations from the cyclones once a week when the equipment is operating. Records of emissions and corrective actions are kept onsite.

Fugitive Dust Control Equipment for Soda Ash Handling

Soda Ash Handling is covered by EUSODA-ASH in the ROP.

Soda ash is transported by truck and will be transferred to a silo by an enclosed blowing system that has a baghouse at the discharge point. It is then transferred to a dissolving tank. A minimum drop height is used.

The mill has pressure gauges at the entrance and exit of the baghouse, and the operator is in position to see a ruptured bag. The normal operating range is identified in the Source-Wide Malfunction Abatement Plan (MAP), and records are kept of any excursions and the corrective actions taken. The differential pressure of the baghouse is monitored continuously. Alarms are activated if the specified range is exceeded.

Fugitive Dust Control Equipment for Solid Fuel Handling

Solid Fuel Handling is covered by EUSOLIDFUELTRAN in the ROP.

Enclosed wood and wood waste conveyors and new covered conveyors transport solid fuels of wood, wood waste, TDF, and primary clarifier residuals. The fuel streams are blended while traveling along the conveyor before being deposited into a fuel feed bin.

The ROP requires the mill to perform non-certified visible emissions observations for the conveyors once a week when the equipment is operating. Records of emissions and corrective actions are kept onsite.

Fugitive Dust Control Equipment for Sand Handling

Sand Handling is covered by EUSANDSILO in the ROP.

Sand shipments are transported by truck and will be transferred to a silo by an enclosed blowing system that has a baghouse at the discharge point. The sand will be stored in the silo until it is used by Boiler 5 in its fluidized bed.

The mill has pressure gauges at the entrance and exit of the baghouse, and the operator is in position to see a ruptured bag or any visible emissions. The normal operating range is identified in the Source-Wide Malfunction Abatement Plan (MAP), and records are kept of any excursions and the corrective actions taken.

The ROP requires the mill to perform a non-certified visible emission observation while EUSANDSILO is being filled. Records of emissions and corrective actions are kept onsite.

Fugitive Dust Control Equipment for Fly Ash Handling

Fly Ash Handling is covered by EUFLYASH in the ROP.

Fly Ash from the boiler baghouse is transferred to a collection tank by an enclosed blowing system that has a separate baghouse at the discharge point. The ash is then loaded into dump trucks via an enclosed tube for transport to a landfill. Water is added to the fly ash during the transfer in order to minimize fugitive dust and improve handling characteristics. The trucks are not filled above 6" from the top and they are covered with a tarpaulin for transport.

The ROP requires the mill to continuously measure the differential pressure across the baghouse. The normal operating range is identified in the Source-Wide Malfunction Abatement Plan (MAP), and records are kept of any excursions and the corrective actions taken.

Fugitive Dust Control Equipment for Pellet Handling

Pellet Handling is covered by EUPELLET in the ROP.

Pellets and bed material from the Copeland Reactor are transferred to a collection tank by an enclosed blowing system that has a baghouse at the discharge point. If the material is subsequently disposed of, instead of being reused, minimum drop heights are used in loading trucks.

Activities from Previous Year

Road brining occurred 7/13/2020 and 8/25/2020 at the Mill and the Secondary Treatment road.

2020 Street sweeping:

- April: 1 event
- May: 1 event
- August: 1 event
- September: 3 events
- October: 2 events
- November: 1 event

New Activities

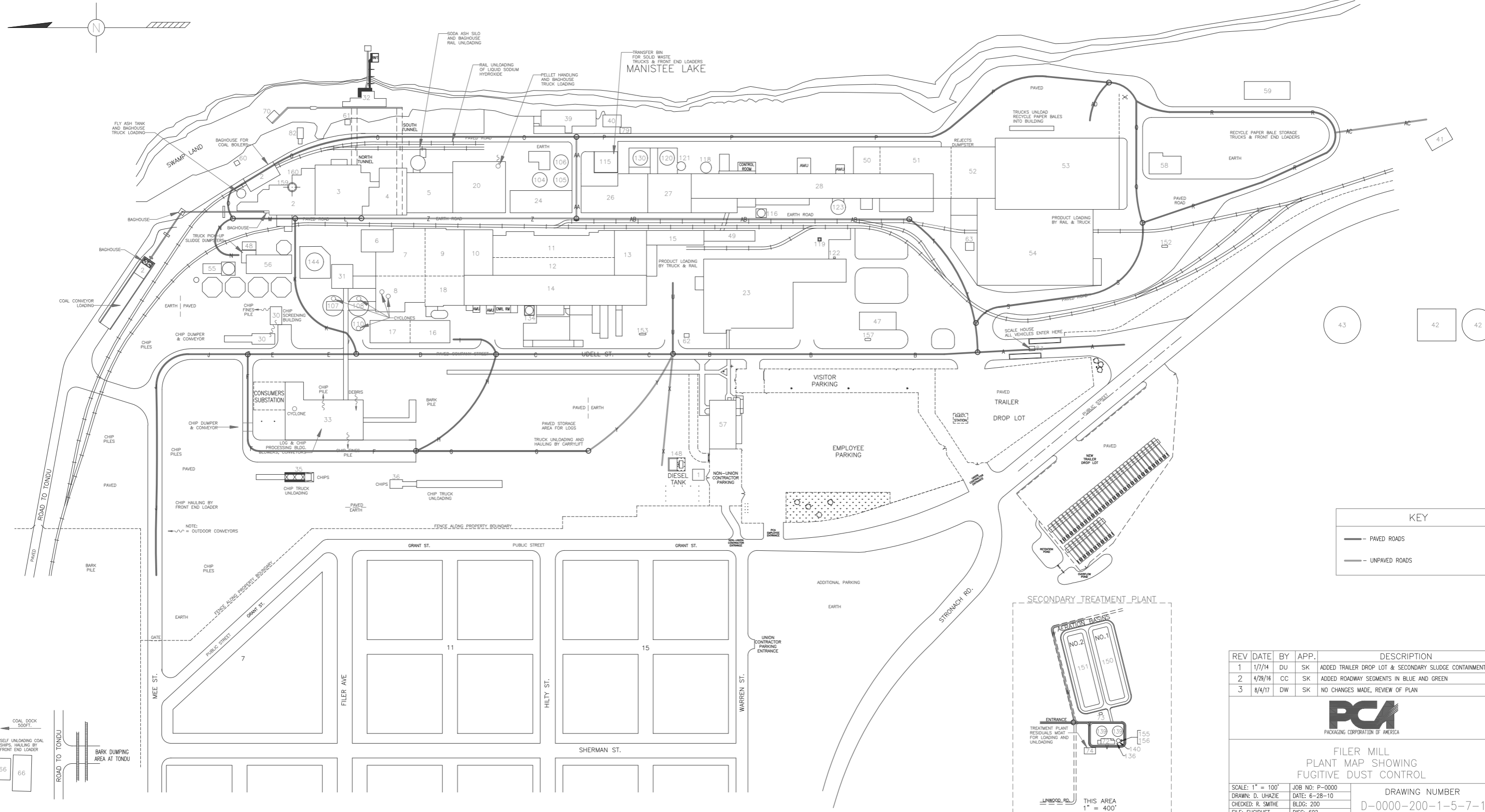
Boiler 5 is running as of April 2021 which affects:

- The addition of a TDF storage pile
- Sand hauling to new boiler
- Soda Ash delivered by truck instead of train
- Fly ash handling will resume
- Bark being moved from pile to feed bin

Appendices

1. Calculation of potential uncontrolled fugitive dust emissions.
2. Plant Map showing approximate location of storage piles, conveyors, traffic patterns, and fugitive dust control equipment.
3. Plant Map showing labelled road segments

PLACE NAME & NUMBER	PLACE NAME & NUMBER	PLACE NAME & NUMBER	PLACE NAME & NUMBER	PLACE NAME & NUMBER	PLACE NAME & NUMBER	PLACE NAME & NUMBER	PLACE NAME & NUMBER	PLACE NAME & NUMBER	PLACE NAME & NUMBER	PLACE NAME & NUMBER	PLACE NAME & NUMBER
1 GARAGE	16 MAIN OFFICE (ANNEX)	31 CHIP WASHING	47 VEHICLE WASH BUILDING	61 GAS METER HOUSE					116 ISOPAR TANK	130 NORTH HI-DENSITY CHEST	
2 POWER HOUSE	17 MAIN OFFICE (ANNEX)	32 LAKE WATER PUMP HOUSE	48 WASTE PAPER SCREENING	62 PCB STORAGE BUILDING							
3 POWER HOUSE	18 NO.1 & 2 PULP MILL, UPPER LAB	33 WOOD ROOM - CHIPPING	49 PRODUCTION CONFERENCE ROOM	63 FIRE PUMP HOUSE							
4 POWER HOUSE	20 REACTOR BUILDING	35 NORTH TRUCK DUMPER	50 PAPER TEST LAB	79 EMERGENCY EFFLUENT GENERATOR BUILDING				104 BLACK LIQUOR TANK NO.1	118 #1 REFINER CHEST	148 DIESEL TANK	
5 LIQUOR MAKING		36 SOUTH TRUCK DUMPER	51 WASTE PAPER PROCESSING					105 BLACK LIQUOR TANK NO.2	119 FUEL OIL STORAGE	150 #1 AERATION BASIN	
6 MAINTENANCE SHOP			52 WASTE PAPER STORAGE	66 EQUIPMENT STORAGE (2 BLDGS)				106 BLACK LIQUOR TANK NO.3	120 SOUTH HI-DENSITY CHEST	151 #2 AERATION BASIN	
7 NO. 1 & 2 PULP MILLS			53 STORE ROOM					107 NORTH CHIP SILO	121 NORTH LOW-DENSITY CHEST	152 PROPANE TANK	
8 NO. 1 & 2 PULP MILLS	23 MAINTENANCE BUILDING	39 PRIMARY CLARIFIER	54 BIO-ENERGY CONDITIONING BLDG.	70 LIFT STATION				108 SOUTH CHIP SILO	122 GASOLINE PUMP (UST)	153 PROPANE TANK	
9 NO. 1 & 2 PULP MILLS	24 PIPE SHOP	40 EFFLUENT PUMP HOUSE	55 BIO-ENERGY ANEROBIC TREAT. BLDG.						123 #3 BROKE CHEST	138 CLARIFIER NO. 1	
10 NO.1 & 2 BEATER ROOM			56 MULTIPLEX BUILDING					110 WEST CHIP SILO	139 CLARIFIER NO. 2	155 PROPANE TANK	
11 NO. 1 PAPER MACHINE	26 NO. 3 PULP MILL		57 WASTE OIL STORAGE BUILDING	72 SECONDARY TREATMENT					140 THICKENER	156 PROPANE TANK	
12 NO.1 & 2 ROLL PIT	27 NO. 3 PULP MILL	42 FILTER PLANT	58 OUT BUILDING	73 AERATION BASIN SUBSTATION						157 PROPANE TANK	
13 NO.1 & 2 ROLL STORAGE	28 NO. 3 PAPER MACHINE	43 RESERVOIR	60 GAS METER HOUSE	74 SEC. SLUDGE CONTAINMENT						159 BOILER WATER PRECIPITATOR	
14 NO. 2 PAPER MACHINE								115 TEMPORARY SLUDGE CONTAINMENT	144 BLACK LIQUOR TANK NO.4	160 BRINE (UST)	
15 NO.1 & 2 SHIPPING	30 CHIP SCREEN BLDG./TRUCK DUMPER										



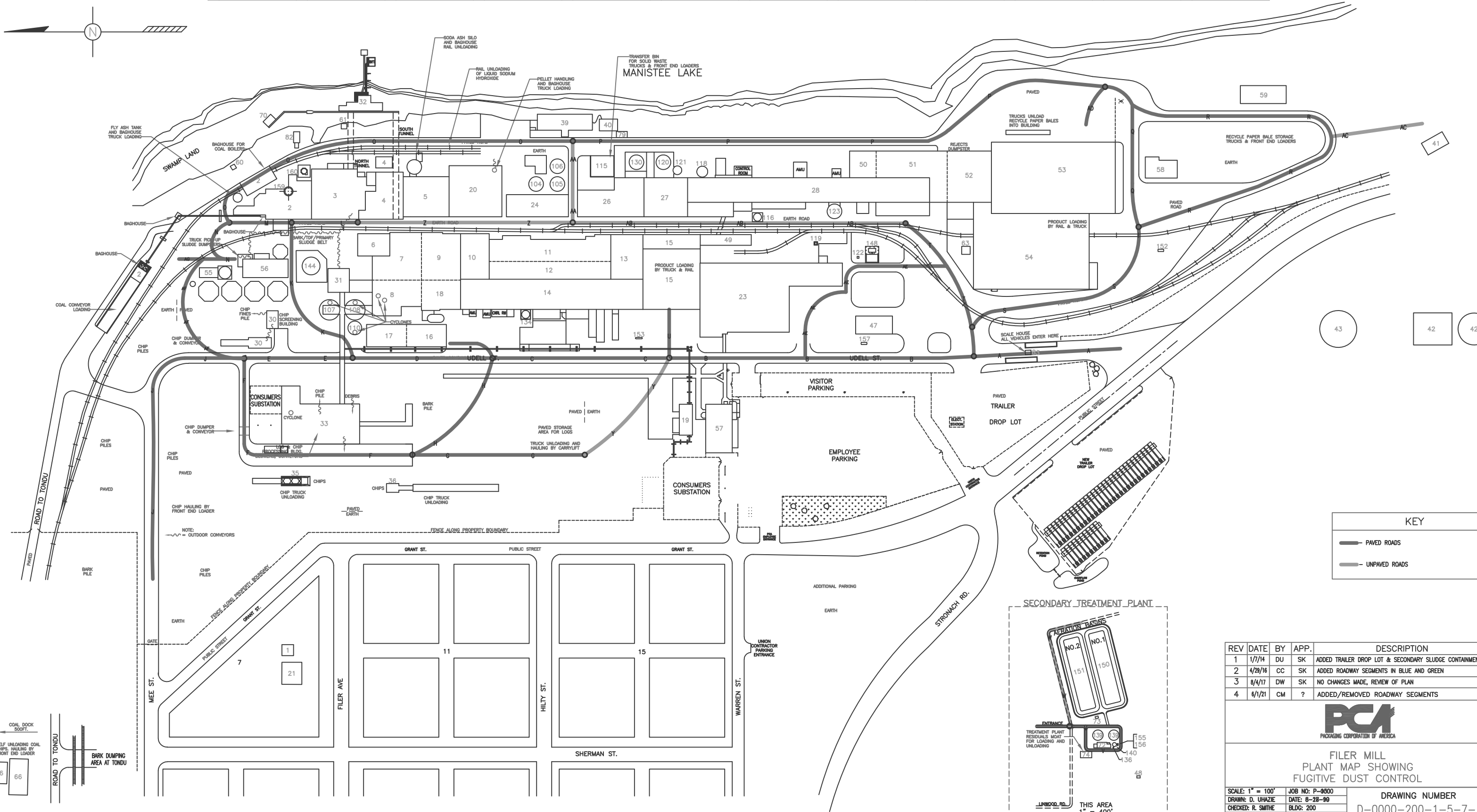
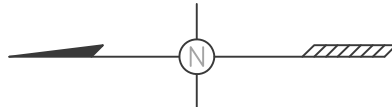
REV	DATE	BY	APP.	DESCRIPTION
1	1/7/14	DU	SK	ADDED TRAILER DROP LOT & SECONDARY SLUDGE CONTAINMENT
2	4/29/16	CC	SK	ADDED ROADWAY SEGMENTS IN BLUE AND GREEN
3	8/4/17	DW	SK	NO CHANGES MADE, REVIEW OF PLAN



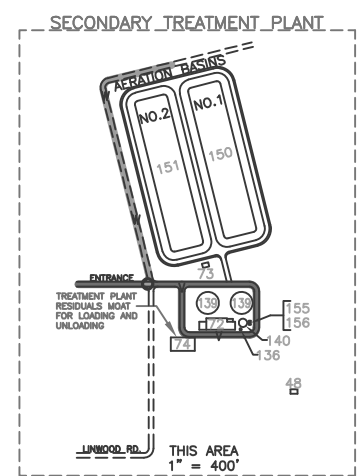
FILER MILL
PLANT MAP SHOWING
FUGITIVE DUST CONTROL

SCALE: 1" = 100'	JOB NO: P-0000	DRAWING NUMBER
DRAWN: D. UHAZIE	DATE: 6-28-10	D-0000-200-1-5-7-1
CHECKED: R. SMITHE	BLDG: 200	
FILE: FUGIDUST	DISC: 602	

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3 POWER HOUSE	18 NO.1 & 2 PULP MILL, UPPER LAB	33 WOOD ROOM - CHIPPING	49 PRODUCTION CONFERENCE ROOM	63 FIRE PUMP HOUSE							
4 POWER HOUSE	19 UTILITY SWITCHGEAR BUILDING	35 NORTH TRUCK DUMPER	50 PAPER TEST LAB	79 EMERGENCY EFFLUENT GENERATOR BUILDING							
5 LIQUOR MAKING	20 REACTOR BUILDING	36 SOUTH TRUCK DUMPER	51 WASTE PAPER SCREENING	66 EQUIPMENT STORAGE (2 BLDGS)							
6 MAINTENANCE SHOP	21 WOODLANDS	39 PRIMARY CLARIFIER	52 WASTE PAPER PROCESSING	82 EMERGENCY LIFT STATION GENERATOR BLDG.							
7 NO. 1 & 2 PULP MILLS	23 MAINTENANCE BUILDING	40 EFFLUENT PUMP HOUSE	53 WASTE PAPER STORAGE	83 SOUTH SCALE HOUSE							
8 NO. 1 & 2 PULP MILLS	24 PIPE SHOP	41 LAGOON PUMP HOUSE	54 STORE ROOM								
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									116 PRESTIGE 8527 TANK		
									118 #1 REFINER CHEST	134 PRESTIGE 8527 TANK	148 DIESEL TANK
									119 FUEL OIL STORAGE	136 PHOSPHORIC ACID TANK	150 #1 AERATION BASIN
									120 SOUTH HI-DENSITY CHEST	138 CLARIFIER NO. 1	151 #2 AERATION BASIN
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KEY	
	PAVED ROADS
	UNPAVED ROADS



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3	8/4/17	DW	SK	NO CHANGES MADE, REVIEW OF PLAN
4	6/1/21	CM	?	ADDED/REMOVED ROADWAY SEGMENTS



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PLANT MAP SHOWING
FUGITIVE DUST CONTROL

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DRAWN: D. UHAZIE	DATE: 6-28-90	D-0000-200-1-5-7-1
CHECKED: R. SMITH	BLDG: 200	
FILE: FUGDUST	DISC: 002	