



Grayling Particleboard MAP Forming and Pressing

System Procedure Reference	Operational Control	Document #	EHS GPB PRS 001
Revision Contact	Environmental Manager	Revision Date	August 10, 2018
Revision #	00		

1. Purpose

Preventative Maintenance and Malfunction Abatement Plan-for the Forming & Pressing Area of the Facility. Below are the Emission Units and Control Devices for this plan.

Emission Unit	Control Device
EUBLENDING	BH12
EUFORMING	BH11, BH13
EUPRESS	WS01
EUCOOLING	WS01
EUFCOS	BH17
EURMSILO	BH14A
EUTOH	

This plan fulfills the requirements in current air permit and Malfunction Abatement plan requirements under MACT standard found in 40 CFR 63 Subpart DDDD.

Function: Under MACT, reduce emissions of Hazardous Air Pollutants (defined in the rule) from SOURCE to 90% as defined in the rule and PSD BACT requirement of 95% control of VOC.

2. Scope

This policy applies to Arauco employees and contract workers within the scope of the EHS MS.

3. Responsibility

Responsible supervisory personnel for overseeing the inspection, maintenance, and repair of air cleaning devices: Forming and Pressing Coordinator



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A. Preventative Maintenance Program

Emission Source: EUBLENDING

Maintenance Program

Item to be inspected	Frequency of Inspections or repairs	Type of inspection	Recordkeeping Method
PMs	Monthly	Maintenance	SAP Work Order
Maintenance	Yearly	Maintenance	SAP Work Order
Resin Meter	Weekly	Verification	Form
Resin Meter	Annual/As Needed	Calibration	SAP Work Order

Emission Source: EUFORMING

Maintenance Program

Item to be inspected	Frequency of Inspections or repairs	Type of inspection	Recordkeeping Method
PMs	Monthly	Maintenance	SAP Work Order
Maintenance	Yearly	Maintenance	SAP Work Order

Emission Source: EUPRESS

Maintenance Program

Item to be inspected	Frequency of Inspections or repairs	Type of inspection	Recordkeeping Method
PMs	Monthly	Maintenance	SAP Work Order
Maintenance	Yearly	Maintenance	SAP Work Order

Emission Source: EUCOOLING

Maintenance Program

Item to be inspected	Frequency of Inspections or repairs	Type of inspection	Recordkeeping Method
PMs	Monthly	Maintenance	SAP Work Order
Maintenance	Yearly	Maintenance	SAP Work Order



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Emission Source: EUFCOS

Maintenance Program

Item to be inspected	Frequency of Inspections or repairs	Type of inspection	Recordkeeping Method
PMs	Monthly	Maintenance	SAP Work Order
Maintenance	Yearly	Maintenance	SAP Work Order

Emission Source: EUSILO

Maintenance Program

Item to be inspected	Frequency of Inspections or repairs	Type of inspection	Recordkeeping Method
PMs	Monthly	Maintenance	SAP Work Order
Maintenance	Yearly	Maintenance	SAP Work Order

Emission Source: EUTOH

Maintenance Program

Item to be inspected	Frequency of Inspections or repairs	Type of inspection	Recordkeeping Method
PMs	Monthly	Maintenance	SAP Work Order
Maintenance	Yearly	Maintenance	SAP Work Order



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Air Cleaning Device: Baghouse (BH12, BH11, BH13, BH17, BH14A)

Maintenance Program

Item to be inspected	Frequency of Inspections or repairs	Type of inspection	Recordkeeping Method
Stack Observation	Weekly	Visual	Log Sheet
Pressure Drop Monitor	Annual	Calibration	SAP Work Order
Fans	Annual	Bearing Repacks	SAP Work Order
Fans	Quarterly	PM	SAP Work Order
Rotary valves	Yearly	PM	SAP Work Order

Air Cleaning Device: Wet Scrubber (WS01)

Maintenance Program

Item to be inspected	Frequency of Inspections or repairs	Type of inspection	Recordkeeping Method
Water quality	Weekly	Testing	Log Sheet
Wet scrubber	Monthly	PM	SAP Work Order
Wet scrubber	Annual	PM	SAP Work Order
Wet scrubber	Annual	Cleaning	SAP Work Order
Flow meter	Annual	Calibration	SAP Work Order

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Spare parts list for

This list is a list of items to be either kept on hand or if the spare is utilized, then a replacement will be put on order.

Air Cleaning Device: Baghouse (BH12, BH11, BH13, BH17, BH14A)

<u>Spare Quantity</u>	<u>Unit Item Description</u>
Full set/size +10%	Bags
Full set/size +10%	Cages
1	Pressure regulator/filter
1	Safety valve
1/size	Air solenoid valve
1	Pressure differential switch
1	Filter Control unit
1/size	Rupture discs
1/size	Fan impeller shaft fixed bearing
1/size	Fan impeller shaft floating bearing
1/size	Fan shaft coupling elements

Air Cleaning Device: Wet Scrubber

<u>Suggested Spare Quantity</u>	<u>Unit Item Description</u>
1/size	Fan Bearings
1/size	Pump impeller
1/size	Bearings
1/size	Mechanical seal
1/size	Shafts
1	Flow Meter



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B. Emission Unit (Source) and Air Cleaning Device Operating Variables to be Monitored

Emission Source: EUBLENDING, EUFORMING, EUPRESS, EUCOOLING, EUFCOS, EURMCOS, EURMSILO, EUTOH

The above Emission Sources does not have any operating parameters that will directly affect emissions.

Air Cleaning Device: Scrubber

<i>Operating Variable to be Monitored</i>	Normal Range of Operating Variable	Frequency & method of monitoring malfunction and type of record keeping
Number of Plugged Nozzles	>4 to <9 plugged nozzles, TBD during commissioning	Continuous monitoring with alarms.
Scrubber Water Flow	TBD during commissioning	Continuous monitoring with data stored on a local historian server.
Visual Emission Inspection	Clear emission from stack.	While operating, one per calendar week a visual emission inspection.

Air Cleaning Device: Baghouse

Operating Variable to be monitored	Normal Range of the Operating Variable	Frequency & method of monitoring malfunction and type of record keeping
Prefilter pressure drop (dP)	Range of >.5 lbs to <8 lbs W.C. to be finalized during commission.	Continuously monitored in the control room and retained in the outside historian.
Visual Emission Inspection	Clear emission from stack.	While operating, one per calendar week a visual emission inspection.

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C. Corrective Procedures or Operational Changes taken in the event of a malfunction or failure to achieve compliance with applicable requirements.

Air Cleaning Device: Baghouse

Malfunction or Failure	Corrective Procedure
Fire in Baghouse	Emergency vents and process shutdown
Pressure <.5 or >8 inches WC	The cause of the out of range pressure differential will be investigated and repairs and or cleaning will be completed.
Abnormal Visual Emissions.	The cause of the abnormal visual emission will be investigated and repairs and or cleaning will be completed.

Air Cleaning Device: Wet Scrubber

Malfunction or Failure	Corrective Procedure
Plugged Nozzles	Nozzles will be unplugged while unit is operating.
Water flow under minimum water flow.	Investigation to ensure flow meter is reading correctly will be done first. If minimum flow cannot be resolved in a 12-hour period with the minimum number of nozzles are in service. The press will be shut down and an investigation will be initiated and proper correction will be initiated.
Abnormal Visual Emissions.	The system will be investigated and repair and or cleaning be completed.

Revision Number	Revision Date	Description of Change
00	8/10/2018	Written